

# THE SOLYNDRA APPENDIX: Part One

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**A collaborative documentation e-book**

SO LYNDRA

FBI



**SPEED**

**LIMIT**

**55**

**PERSONAL UNCENSORED  
WORLD NEWS**

**[dailynewsglobal.org](http://dailynewsglobal.org)**

**THE WHOLE  
STORY**





The image shows a low-angle shot of a modern building's exterior. The building has a dark grey, grid-patterned facade on the left and a large glass window section on the right. The sky is a clear, bright blue. The word "SOLYNDRA" is mounted on the grey facade in large, white, 3D block letters. The letter "O" is replaced by a yellow circle with several horizontal lines of varying lengths extending from its left side, resembling a stylized sun or a fan. The letters cast shadows on the building's surface.

**SOLYNDRA**

Farrell, Paula

Tuesday, March 17, 2009 6:14 PM

Mananathan, Karthik:

Werner, Gary;

Carfione, Ken

Subject: Could You Call Matt Rogers in Energy Secretary Chu's Office to Stop the Train  
Title XVII Deal??

Priority: High

Re: B, the term sheet might be signed tonight by Secretary Chu.

I had NOT had time to review and consult with Energy on the term sheet, which  
is a problem.

Someone please call Matt Rogers per OMB's suggestion tonight to get us a day or  
two on the term sheet?

Secretary's direct phone number is [REDACTED]





**AFGHAN**

**LITHIUM**

# Airbus to drop lithium-ion batteries for A350 due to regulatory concerns

Text Size Print E-mail Reprints

By Associated Press, Updated: Thursday, February 14, 6:44 PM

**NEW YORK** — Airbus is dropping lithium-ion batteries from its new A350 airplane because of uncertainty surrounding the technology that has led to the grounding of Boeing's 787.

The European planemaker said late Thursday that it has decided to revert to nickel-cadmium batteries for the A350. The plane is a wide-body jet rival to the 787 and is expected to make its first flight around the middle of the year.

Airbus says it does not expect the battery switch to delay the A350.

Federal officials grounded the 787 last month because of problems with its lithium-ion batteries that caused one fire and forced another plane to make an emergency landing.

Airbus says the A350 uses batteries in a different setup to the 787, making it unlikely that it would face the same problems.

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Comments

Weigh In > Corrections? >

Tweet 0

More

Gallery



**From:** jim McCrea [REDACTED]  
**Sent:** Saturday, October 30, 2010 4:49 PM (GMT)  
**To:** 'Silver, Jonathan' - [REDACTED]@hq.doe.gov>  
**Subject:** RE: Strategy Question

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Working away but it is hard to argue that 50% for total subsidy which they are headed for is not reasonable, especially with a decision maker who has no clue. Even if you add 5% for RPS to every transaction, it lets everything through except for BrightSource, US Geothermal, Abengoa and First Wind. On that criteria, even Shepherd's Flat and Baldwin get through. 50% simply is not an issue for us if it was the only criteria. The problem is the overlapping criteria which effectively take so many of our transactions out.

Jim

---

James C. McCrea  
**JAMES McCREA & ASSOCIATES LLC**  
[REDACTED]  
Wilton, CT 06897  
Phone: (203) [REDACTED]  
Fax: (203) [REDACTED]  
jimmccrea@ [REDACTED]

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**From:** Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
**Sent:** Saturday, October 30, 2010 12:40 PM  
**To:** 'jimmccrea@ [REDACTED]'  
**Subject:** Re: Strategy Question

While I might agree with you intellectually, that is not where we are. Let's finish this process and get back to business. When they don't fast track something, we'll complain. We've gotten deals done with the 55% recovery rate; we'll get deals done this way. Please add commentary and additional points to what I've written and let's get this done and get back to work.

Again, worst case, we're back to where we started. I don't personally believe that, after this, they will turn down non fast tracked deals either (except maybe take out financing).

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]@hq.doe.gov

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**From:** Jim McCrea <jimmccrea@ [REDACTED]>  
**To:** Silver, Jonathan  
**Sent:** Sat Oct 30 12:33:38 2010  
**Subject:** Strategy Question

I am growing increasingly worried about a fast track process imposed on us at the POTUS level based on this chaotic process that we are undergoing. The work to date does not have near enough staff work to be supportable and is totally being done on the fly and is being used by other agencies to impose theological views. We really get little out of fast tracking when you get right down to it and the process that is being designed is pure crap. Further, by legitimizing some of their theological views in the fast tracking screens, we give those views credibility that will be certainly be used against

us for non fast tracked transactions. By designing the fast track process and having it approved at the POTUS level (which is an absolute waste of his time!) it legitimizes every element and it becomes embedded like the 55% recovery rate which also was imposed by POTUS.

I think that the time has come, given how poorly this process is going, to step back from all of this and to take a deep breath.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

██████████  
Wilton, CT 06897

Phone: (203) ██████████

Fax: (203) ██████████

jimmccrea@██████████



**From:** James C McCrea [REDACTED]  
**Sent:** Monday, March 1, 2010 6:00 PM (GMT)  
**To:** 'Schmitzer, David' [REDACTED]; 'Roger McDaniel' [REDACTED]; 'Don Bennett' [REDACTED]; 'Kim, Dong' [REDACTED]  
**Subject:** RE: Eagle Rock Project  
**Attach:** firsteall mid

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My thoughts on this are most eloquently expressed in music. Enjoy.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

**From:** Schmitzer, David [REDACTED]  
**Sent:** Monday, March 01, 2010 12:37 PM  
**To:** 'James C McCrea'; 'Roger McDaniel'; 'Don Bennett'; Kim, Dong  
**Subject:** Eagle Rock Project

Jonathan just said at our staff meeting that, opposite the message received on Thursday, AREVA is now a "go" (seems on Friday POTUS himself approved moving it ahead). Jonathan would like to try to get it to the CRB in March (the 24th?) but did say that things like the updated review of the off-taker financials needs to be done first. Also, Dong needs to get Parsons to review the transmission question asap. AREVA is aware that this review needs to be done and will make themselves available as needed. Their explanation to me on Friday concluded that they believe there is no impact on the implementation schedule in the Credit Paper. I think it makes sense for everyone to take a few days and review where they are on updating the Credit Paper, Credit Committee presentation, credit subsidy (work involved/timelines) then we meet first together as a team (the end of this week?) then with AREVA (early next week?). The timing of the meetings will obviously depend on everyone's availability.

David

David Schmitzer  
Director, Loan Origination  
Loan Guarantee Program  
U. S. Department Of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

[REDACTED]

**From:** Silver, Jonathan [REDACTED]  
**Sent:** Friday, June 25, 2010 12:42 PM (GMT)  
**To:** 'James C McCrea' [REDACTED]  
**Subject:** RE: Meeting Schedule -- Treasury and Policy Issue Discussions

Email #3

You better let him know that the WH wants to move Abound forward. Policy will have to wait unless they have a specific policy problem with abound.

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC, 20585  
[REDACTED]

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**From:** James C McCrea [REDACTED]  
**Sent:** Friday, June 25, 2010 1:29 AM  
**To:** Silver, Jonathan  
**Subject:** FW: Meeting Schedule -- Treasury and Policy Issue Discussions

Jim

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James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]

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**From:** McCrea, Jim [REDACTED]  
**Sent:** Thursday, June 24, 2010 7:26 PM  
**To:** jimccrea [REDACTED]  
**Subject:** FW: Meeting Schedule

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**From:** Ian Samuels [REDACTED]  
**Sent:** Thursday, June 24, 2010 7:25:29 PM  
**To:** McCrea, Jim  
**Cc:** Frantz, David; Gary Burner [REDACTED]; Paula Farrell [REDACTED]  
Judson Jaffe [REDACTED]; Jeff Foster [REDACTED]  
**Subject:** RE: Meeting Schedule  
Auto forwarded by a Rule  
Jim -

Thank you for the email. I'd propose the following:

1. Scheduling the Abound briefing at a time and place that is convenient for Paula and Gary.

[REDACTED]

2. For the first 20 minutes of that briefing, have you provide an introduction and briefly walk through the following guidelines that were provided in regards to:
  - a. 1603
  - b. Those that were laid out on the second page of the tax equity guidelines provided to the NEC working group
3. Discuss policy review process going forward, including laying out a timeline (that includes discussions next week)

I would note that we view the discussion of outstanding policy issues, outside of the transaction review process, as a key part of our consultative role. Accordingly, we must engage in a discussion on these important issues in the near term, and look forward to doing so.

Additionally, we are looking forward to receiving the one-pagers and the description of the USG warrants.

Let me know if you have any questions or comments.

Thanks,  
Ian

SENSITIVE / PRE-DECISIONAL

Ian Samuels  
Department of the Treasury | Domestic Finance  
[REDACTED]

-----Original Message-----

From: McCrea, Jim [mailto:Jim.McCrea@Hq.Doe.Gov]  
Sent: Thursday, June 24, 2010 5:34 PM  
To: Samuels, Ian  
Cc: Frantz, David  
Subject: Meeting Schedule

Ian --

In light of the transaction pressure under which we are all now operating as we discussed in the call, Dave and I were thinking that it might make sense to do an Abound briefing tomorrow afternoon and move the guideline discussion to next week. Would Treasury/FFB be available for an Abound discussion any time from 1:30 on tomorrow?

Given the sensitivities, I am just sending this to you.

Jim

James C. McCrea  
Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

**From:** James C McCrea [REDACTED]  
**Sent:** Thursday, September 9, 2010 1:18 AM (GMT)  
**To:** boakley@[REDACTED]  
**Subject:** Shepherds Flat

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Email #4

Could not get Doug and Dave to agree to go to OMB tomorrow without Roger and Lew Robertson since they were only available by phone. I told them that if we tried to push OMB to deliver to support a CRB, this unwillingness would be thrown back at us. Still could not budge them. No real sense of urgency. Pretty amazing. Jonathan was a bit unhappy that we did not go on Thurs but understands exactly why.

Pressure is on real heavy on SF due to interest from VP.

Also, remind me to tell you about Treasury when we talk. Changes over there that are helpful.

Jim

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James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

JM\_00067515



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**From:** John Woolard  
**Sent:** Tuesday, May 24, 2011 2:56 PM  
**To:** 'smcbee'; [REDACTED]  
**Subject:** Fw: [REDACTED]

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**From:** John Bryson; [REDACTED]  
**To:** John Woolard; [REDACTED]  
**Cc:** Arthur Haubenstock  
**Sent:** Mon May 23 22:01:17 2011  
**Subject:** Re: [REDACTED]

Thanks, John.

We will send this out with whatever edits I may make-- tomorrow morning.

Time clearly is of the essence.

John

Maddie, you may have seen my earlier email. I will call you on your cell phone some time near 7:45am (or a little earlier) tomorrow.

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**From:** "John Woolard"; [REDACTED]  
**Sent:** 05/23/2011 06:25 PM MST  
**To:** John Bryson; Maddie Peters  
**Cc:** "Arthur Haubenstock"; [REDACTED]

Dear Maddie -- please see email below from John Bryson to Bill Daley at the Whitehouse. Arthur and John might have a few minor comments, but John will contact you with further instructions on sending it out. Thanks, John

Dear Bill -- Our company, BSE, has begun construction on the largest solar project in the world, a 400 MW project called Ivanpah. The project is the recipient of a significant DOE loan guarantee of \$1.6 billion, and DOE has already funded \$400 million of the flagship project.

This project is now at significant risk due to delays in permitting at the Department of Interior. What appears to have happened is that at USFWS there has been a delay past the committed date for the release of the Biological Opinion. The committed date was May 24<sup>th</sup>, and any delay past that date puts the project at significant risk. This project has been very high profile for the administration, President Obama highlighted it in his weekly address, Sec Salazar attended and spoke at the groundbreaking, and DOE has already spent \$400 million. As this project crosses across quite a few departments in the administration that are not well coordinated, could you please contact Secretary Salazar directly and let him know that it is imperative that we get this Biological Opinion out this week, or a high profile project that is at the center of the administration's cleantech agenda with over 1,000 green, union jobs will likely fail.

Best Regards, John Bryson

**From:** john.bryson/sec/cix  
**Sent:** Wed May 25 2011 10:53:35 PDT  
**To:** "john woolard" [REDACTED]  
**Subject:** Re: Follow up

Terrific! Nice work.

Is the comp emtee going ahead tomorrow morning? You indicated on Mon. it might be deferred.

I can be ready either way.

----- Original Message -----

**From:** "John Woolard" [REDACTED]  
**Sent:** 05/25/2011 10:30 AM MST  
**To:** John Bryson  
**Subject:** RE: Follow up

John - We are making good progress in DC. Whitehouse does seem to be very focused on this issue, in fact it is being elevated through the office of political affairs as well as VP Bidens - so we are starting to get them focused on the massive political risk - it helps that Bloomberg called Ivanpah "Obama's energy project" so it does have their attention, Still a work in progress. JW

-----Original Message-----

**From:** John Bryson [REDACTED]  
**Sent:** Wednesday, May 25, 2011 8:16 AM  
**To:** John Woolard  
**Subject:** Follow up

John,

My regrets re not being able to provide the help yesterday. I know that finding a path to prompt and positive action on the biology resolution is critically important.

Pls let me know if there is anything else I could do to be helpful.

I have just had breakfast here with a CalSters person, Mahmoud, who is a believer in Brightsource. He had called me And we had spoken two times previously.

I hope you are finding a positive bath through the Dept of Interior.

John

**From:** john.bryson/sec/cix  
**Sent:** Sun Jun 12 2011 21:40:59 PDT  
**To:** "dan.judge" [REDACTED]  
**Subject:** Re: BrightSource Report -- Ivanpah Developments and SEC Status

Wonderful news. Congrats to all on this outcome. It wasn't easy, I know.

From: "Dan Judge" [REDACTED]  
Sent: 06/12/2011 06:40 PM MST  
To: John Bryson; "John Woolard" [REDACTED]; "Arnold Goldman" [REDACTED]; "Nicholas Brathwaite" [REDACTED]; "Stephan Dolezalek" [REDACTED]; "David Fries" [REDACTED]; "James Eats" [REDACTED]; "Tom O'Flynn" [REDACTED]; "Keely Wachs" [REDACTED]; "Jack Jenkins-Stark" [REDACTED]; "Anne Fazioli-Khiari (Consultant)" [REDACTED]; "Kenzel Hagaman" [REDACTED]  
Subject: BrightSource Report -- Ivanpah Developments and SEC Status

Gentlemen,

Apologies if you have already heard this, but on Friday we received some very good news at Ivanpah. The U.S. Fish and Wildlife Service issued their revised Biological Opinion (BO), prompting the Bureau of Land Management to issue a new notice to proceed (NTP) allowing continued construction at Ivanpah units 2 and 3. Anticipating this outcome, our team and Bechtel were mobilized and are now taking the necessary steps to progress construction. Biologists and fencing crews have been working through the weekend, and will continue into the week, building fences and clearing tortoises in order to allow additional work through the summer months.

As a result of the new BO and NTP, we expect to maintain the critical path schedule with no change.

It is possible that the new BO and NTP may cause the plaintiffs in the current litigation to file additional papers. We believe that we are well-positioned and prepared should any additional legal actions occur. We will provide additional updates if there are any significant developments.

In related news, we filed Amendment No. 2 to the registration statement on Form S-1 with the SEC late Wednesday night, addressing comments made by the SEC staff and including first quarter financials. One of the key unresolved, open issues in our communications with the SEC staff was the status of

permits to continue construction at Ivanpah. With the new BO and NTP, we expect to be able to eliminate that issue in our next round of correspondence.

Thank you for your continued support.

Best regards,

Dan

**From:** James C McCrea [REDACTED]  
**Sent:** Saturday, December 5, 2009 3:34 AM (GMT)  
**To:** 'barbiar' [REDACTED]  
**Subject:** Next Week and Please Call

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Paul -

What a day. Memo got done and went upstairs. There is other significant news from here today so we definitely need to talk over the weekend.

I am on an 8am flight down on Mon morning given everything that is going on. Roger is likely on the same flight. You can make a decision once we talk.

The following is text from an e-mail I sent Kelly this evening that I thought that you might want to think about given the BrightSource events today.

The situation may be volatile. I knew that Reid was having serious issues as I keep an eye on the political situation nationally in spite of generally not talking about it. I was doing my normal daily check on things and not looking for Reid when I found the following posted today:

Senate Majority Leader is already facing an uphill climb as he attempts force health care reform through an irascible Senate in Washington. But a new poll shows that fight could be nothing compared to what he faces back home in Nevada. In a new Mason-Dixon poll of Nevada voters out today, Reid has just a 38% approval rating -- and is losing in a hypothetical matchup with both of the leading contenders for the Republican nomination.

It's not news that Reid is facing a tough reelection battle. But the new poll today shows he's made very little progress in regaining the trust of his constituents after weeks of trying.

The August Mason-Dixon poll, out in August, showed him with a 37% approval rating. In response to numbers like that, Reid launched what the Las Vegas Review-Journal called a "promotional bombardment" featuring TV ads and other outreach. That effort appears to have not done the job.

That may put recent events in a different perspective, both in terms of how Reid will handle this as well as how the WH might respond to him given the circumstances and their respective agendas.

There may be larger considerations. However, if those truly come into play, there may be an ability to move several transactions with political issues simultaneously, allowing LGPO to finish the year with a trifecta!

Since this is not going into the DOE, and just to be clear, the translation is: Reid may be desperate. WH may want to help. Short term considerations may be more important than longer term considerations and what's a billion anyhow? If it has to go down that way anyhow, maybe AREVA can be moved at the same time allowing for a trifecta including Vogtle and allowing for a dramatic advancement of the cause of getting on the boards.

I ended up at the Embassy Suites again for Fri night. I am northbound on the 9am Acela Saturday morning to Stamford. I am up tonight until about 11:30. Talk whenever.

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]

**From:** Otness, Chris <[REDACTED]@Hq.Doe.Gov>  
**Sent:** Tuesday, May 4, 2010 10:38 PM (GMT)  
**To:** Silver, Jonathan <[REDACTED]@hq.doe.gov>; Tobin, Daniel <[REDACTED]@hq.doe.gov>; Frantz, David <[REDACTED]@hq.doe.gov>; [REDACTED]  
**Subject:** RE:  
**Attach:** S1 Meeting with Senators Reid and Bingaman re Loan Programs doc; I.GP Overview.pptx; NV and NM projects - Signet\_Fulcrum\_Molycorp.doc; fs Southwest Intertie Project-South1.docx; Reid Letter to President.pdf; LES Letter to S1.pdf

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Jonathan - Attached is a rough draft of the Reid Memo and the corresponding documents. Frantz/McCrea have looked over the memo but have not yet seen some of the corresponding documents.

We will definitely need your guidance for edits in certain areas. Kate Eltrich from Leg Affairs in OMB will be attending according to Jonathan Levy.

This is due in its final version for S1 by 6:15am PST/9:15am EST tomorrow morning.

Best,

Chris Otness  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

-----Original Message-----

**From:** Silver, Jonathan  
**Sent:** Tuesday, May 04, 2010 1:42 PM  
**To:** Tobin, Daniel; Frantz, David; [REDACTED]  
**Cc:** Otness, Chris  
**Subject:**

The mtg on Thursday afternoon, originally scheduled weeks ago as a mtg with the Majority Leader and me has turned into a much bigger affair. It now includes Secretary Chu, Peter Orszag, Senator Reid and Senator Bingaman.

Can we find out if anyone else from omb is going.

I need a list of all the projects that have ever applied from Nevada and New Mexico and what happened to them.

I also need a couple of paragraphs on SWiP, molycorp, fulcrum and whatever else has been an issue.

I need some stats on how many projects we have funded or have in DD as a percentage of totals. Reid is constantly hit at home for not bringing in federal dollars.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]



## Meeting with Senator Reid and Senator Bingaman

Capitol Building S-211

5:30 pm – 6:30 pm on Thursday, May 6, 2010

Meeting requested by Senate Majority Leader Harry Reid

Briefing prepared by Chris Otness (██████)

### EVENT

You will be meeting, at the request of Senator Reid's office, with Senator Reid, Senator Bingaman, OMB Director Orszag and Jonathan Silver to discuss the Department of Energy Loan Programs.

**Press: Closed**

### YOUR ROLE/CONTRIBUTION

- The objective of this meeting will be to address the questions and concerns that Senator Reid and Senator Bingaman have on whether or not the DOE Loan Programs is functioning properly.
- Your role will be to reinforce DOE's message that the Loan Programs is operating at a good pace and that we anticipate a good number of deals to be approved in the coming months.

### PROGRAM NOTES

- **Attendees:**
  - Senator Reid
  - Senator Bingaman
  - Peter Orszag
  - Jonathan Silver
  - Dan Utech
  - Kate Eltrich – OMB Legislative Affairs
- Topics that YOU can expect to address in this meeting including the following:
  - An update for Senators Reid and Bingaman on the progress of the DOE Loan Programs.
  - An explanation of the delay in responsiveness to Senator Reid's letter to President and YOU regarding the speed of the DOE Loan Programs last September. This will be determined at your pre-brief on Thursday.
  - An update on coordination between the Loan Programs and OMB.
  - A discussion of specific applications from Senator Reid's and Senator Bingaman's respective states including, but not limited to, Molycorp (NV), Fulcrum (NV), and SWIP (NV).
  - A discussion of a letter sent from LES to YOU regarding the additional loan guarantee authority for front-end nuclear facilities.



**ATTACHMENTS**

1. **LGP Application Data**
2. **Letter from Senator Reid**
3. **Molycorp, Fulcrum, Signet Brief**
4. **SWIP Brief**
5. **LES letter**



**All 1703/1705 Applications****Total****Percentage**

Applications Rejected

188

56%

Applications Withdrawn

19

6%

Applications in Part I &amp; Part II

72

22%

Applications in Due Diligence

47

14%

Projects with Conditional Commitment

8

2%

**Total Applications****334****100%****All Nevada/New Mexico Applications****Total****Percentage**

Applications Rejected

6

60%

Applications Withdrawn

1

10%

Applications in Part I &amp; Part II

1

10%

Applications in Due Diligence

2

20%

Projects with Conditional Commitment

0

0%

**Total Applications****10****100%**

2015 Applications - Nevada and New Mexico Applications



Solicitation	Project Sponsor	Project Name	Loan Request (\$ Thousand)	Category	Subcategory	Project City	State	Status
FY09	NRG Energy, Inc.	New Mexico SunTower	\$178,000	Solar Generation	Concentrated Solar Power	Santa Teresa	NM	Eligible, Waiting on Pt. II application
FY08	NRG Energy, Inc.	New Mexico SunTower	\$180,000	Solar Generation	Concentrated Solar Power	Santa Teresa	NM	Rejected
FY08	Signet Solar, Inc.	SunKachina	\$168,000	Solar Manufacturing	Thin-film micro-crystalline silicon technology	Belen	NM	Rejected
FY09	Omat Nevada Inc	Jersey Valley	\$70,000	Geothermal	Advanced Geothermal	Pershing County	NV	Rejected, Non-Innovative
FY09	Omat Nevada Inc	McGinness Hills	\$107,000	Geothermal	Advanced Geothermal	Lander County	NV	Rejected, Non-Innovative
FY09	Omat Nevada, Inc.	Carson Lake	\$69,000	Geothermal	Advanced Geothermal	Fallon	NV	Rejected, Non-Innovative
FY09	Solar Reserve LLC	Tonopah	\$568,000	Solar Generation	Concentrated Solar Power w/ thermal energy storage	Nye County	NV	Invited to DD, self selection
FY09	LS Power Associates, LP	Southwest Inter tie Project (SWIP)	\$1,124,400	Transmission	500 miles of 500KV AC Line	--	NV / ID	Invited to Due Diligence
FY08	Fulcrum BioEnergy, Inc.	Project Sierra	\$70,000	Biomass	Cellulosic Ethanol	McCarran	NV	Rejected
FY08	Solar Millennium LLC	The Amargosa Solar Power	\$1,762,000	Solar Generation	Concentrating Solar Power	Amargosa Valley	NV	Invited to Due Diligence, later withdrew

Confidential

JM\_00230714

**New Mexico / Nevada Projects With Issues | DATE \@ "M/d/yyyy" |**

**Fulcrum** - Fulcrum Sierra BioFuels LLC ("FSB") is developing a facility to produce 10.5 million gpy cellulosic ethanol from 90,000 tons per year of municipal solid waste. The Sierra Project ("SP"), is located in McCarran, Nevada. The project was reviewed technically and financially and ultimately rejected. Applicant claimed factual error and project was reviewed again by Golden. Golden's opinion was unchanged.

**Strengths:**

- More conservative capital structure than most biofuel proposals @ 60/40.
- The project has executed two no-net cost feedstock agreements that will provide 100% of the MSW feedstock.
- Coverage ratios appear adequate using sponsor base case.
- The site has both interstate and rail access.
- High value alternative products, such as methanol, propanol and butanol may be able to be produced should the ethanol market not support the facility.

**Weaknesses:**

- The R.W. Beck report highlighted the need for additional pilot plant work to confirm design parameter prior to proceeding with detailed engineering.
- The scale up of the project is estimated at 200 to 1, presenting a very large risk with a new technology, especially with the limited operating hours of the pilot plant;
- Continuous process demonstration scale testing was only done for 4-6 hours, much too short for assessing potential process operating issues;
- Project possesses an ethanol marketing agreement but this does not mitigate volume or price risk.
- Loan tenor long at 20 years (18 years post construction) resulting in lower DSCRs should DOE decide to reduce tenor.

**Signet Solar** - Sought \$168MM loan guarantee to establish a manufacturing facility in Belen, New Mexico (just south of Albuquerque) to mass produce PV modules based on amorphous Si (a-Si) thin-film technology. The project was initially accepted but later found to be deficient. A letter requesting additional info was issued mid August 2009. Signet responded, we reviewed the material and ultimately rejected the project in mid January 2010.

**Strengths:**

- Sponsor recently completed a 20 MW facility in Germany in a relatively short construction time frame that is operating as expected. Applied Materials provided the manufacturing line in Germany and will also provide the New Mexico line.
- CH2M Hill has been identified as the EPC contractor and Applied Materials will provide the manufacturing line.
- Substantial economic incentives in the form of tax credits, tax abatements and job training subsidies appear to be available.
- Equity commitments in the amount of \$55 million from company principals.

**Weaknesses:**

- Manufacturing technology is not proprietary and is licensed from Applied Materials suggesting low barriers to entry and dependence upon AMAT for technology upgrades and equipment.
- No offtake contracts, although interested parties have provided non-binding letters of intent or memorandums of understanding regarding quantities and pricing.
- Equity capitalization may need to be increased and should probably be deployed to build most of the first 6.5 MW of capacity.
- Veracity of equity providers is not known without further due diligence.

New Mexico / Nevada Projects With Issues { DATE \@ "M/d/yyyy" }

- Financial pro forma very aggressive with ASPs well above market.

Molycorp

The project proposes the redevelopment of a rare earth mineral deposit to develop metals and permanent magnets that have a wide range of applications in clean energy technologies. A refurbished milling operation, new technology for cracking / solvent extraction processes, and metal/alloy/magnet production facilities will permit the production of 20 tons of rare earth oxides per year.

Status

The applicant submitted their Part I submission on 9/9/09 and was sent a rejection letter on 12/18/09. The project did not pass the LGP's technical eligibility review since it did not qualify as a new or improved technology.

Issues

After receiving their rejection letter, Molycorp submitted a rebuttal letter on 1/5/10 and requested a debrief from the LGP in a separate letter dated 2/18/10. The debrief was held on 3/3/10.

In a follow-up letter from the DOE LGP (dated 4/30/10) to Molycorp DOE further clarified the reasons for rejection. The following was communicated:

"Section 1703(b) of Title XVII lists ten categories of projects that are eligible for a loan guarantee under that section. We do not believe that a mining project qualifies under any of those categories. While we recognize that the first category of "renewable energy systems" may include materials within the renewable energy supply chain, we do not believe that it is broad enough to encompass mineral extraction processes. Moreover, our program has not been designed, and we do not believe that it is well suited, to support such activities. However, as we have indicated to you, we are open to receiving a restructured application for a manufacturing project dedicated to wind turbine magnet production or metal/metal alloy production for use in wind turbine magnets. Of course, any such application would have to satisfy our "innovativeness" criteria under Section 1703 as well as our due diligence, underwriting and other criteria. "

## Southwest Intertie Project (SWIP)

### Phase 1: SWIP-South (Ely to Las Vegas)

#### (Non-public Information)

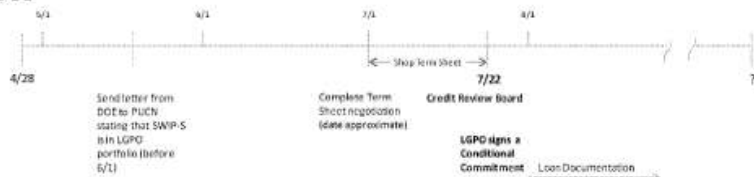
- Single circuit, overhead 500 kVAC transmission line capable of carrying 600 MW of power
  - With Phase 2—from southern Idaho to Ely (SWIP-North), and from Las Vegas to Southern California Edison's grid (Southern Nevada Intertie Project—SNIP) the line will carry 2,000 MW of power.
- Owners in the transmission line are LS Power Associates (75%), and NV Energy's Nevada Power Company (23.75%) and Sierra Pacific Power Company (1.25%).
- SWIP-South will cost \$556 million and presently could receive a loan guarantee on debt of as much as \$334 million (80% of the portion of the line owned by LS Power, the only current applicant).
  - If the NV Energy companies combine their 25% share of the line with the current applicant, loan guarantees on SWIP-South could be on debt of as much as \$445 million (80% of the entire line).
- Status of key initiatives
  - Outside lawyers and IE were engaged last week to begin due diligence; financial advisors have been in place since last year.
  - Project economics have been reviewed and proposed structure financing structure is being formulated.
  - A draft of the Transmission Use Agreement (between LS Power and NV Energy affiliates has been reviewed, but it is not finalized. This is the critical document for the entire project. No meaningful negotiation of terms can take place until it is, at the very least, in near-final form. LS Power anticipates reaching agreement with the NV Energy affiliates on the TUA in May.
  - We are pre-loading all we can in the process (e.g., drafting credit paper, reviewing NVE credit issues, etc.), but more review is essential, and we need to see the TUA before we can advance the term sheet.
- SWIP-S is the only project from the transmission solicitation that is in Due Diligence.

May 4, 2010



# SWIP-S LGPO Timeline

DOE



PUCN



May 4, 2010



## United States Senate

WASHINGTON, DC 20510-7012

September 23, 2009

The President  
The White House  
Washington, D.C.

Dear Mr. President,

I am writing to convey my concerns about the slow pace of implementation of the Department of Energy's loan guarantee programs. These concerns are shared by many Senators, renewable energy developers, and clean energy investors across the country.

As you know, I was pleased to help appropriate an additional \$6 billion for an expanded loan guarantee program for the rapid deployment of renewable energy and electric power transmission, as well as leading edge biofuel projects. Since passage of the Recovery Act, \$2 billion of that original appropriation has been redirected to pay for the Consumers Assistance to Recycle and Save Act (CARS). I look forward to working with you to restore those funds so that the restored \$2 billion can leverage more than \$20 billion in clean energy projects, jobs and economic activity.

Since the innovative loan guarantee program was first established in the 2005 Energy Policy Act and the commercial program was created in the Recovery Act, there appears to have been a general and consistent reluctance on the part of the Office of Management and Budget and to a lesser extent the Department of Treasury to expeditiously fulfill and implement Congress' express intent and statutory direction in regard to these programs. While I applaud the remarkable work of OMB, Treasury and the Department of Energy in moving forward quickly on the Recovery Act's battery and electric vehicle manufacturing grants, as well as the renewable energy grant program in lieu of tax credits, the loan guarantee programs seem handicapped by an extreme aversion to risk.

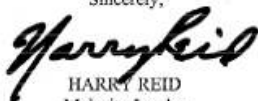
I believe it is very important to ensure that projects for which the Federal government provide loan guarantees are the best possible investments, but there is no such thing as a risk-free investment – public or private. Excessively complicated or unclearly justified regulations and processes designed to ensure zero-risk to the Treasury from guaranteed loans only ensures that billions of dollars appropriated sit idle rather than attracting critically important private investment and growing tens of thousands of clean energy jobs. Renewable industry experts estimate that 18,000 MW of clean renewable energy projects creating 100,000 construction jobs and 7,000 permanent jobs could be created in the very near future if the commercial (section 1705) loan guarantee program alone were functioning at full capacity as Congress intended.

Congress supports the loan guarantee programs and will continue to fund them until there is a better substitute and investors are much more heavily focused on funding significant clean energy development. Furthermore, Congress is unlikely to support using loan guarantee funds again as an offset for other spending.

I hope that you can help clear away the obstacles impairing swift action on making Federal guaranteed loans for clean renewable energy projects. The people of Nevada and many other states are impatiently waiting for the economic development and the jobs that will come with full, effective and rapid implementation of the innovative and commercial loan guarantee programs.

Thank you for your attention to my concerns.

Sincerely,

A handwritten signature in black ink that reads "Harry Reid". The signature is fluid and cursive, with the first name "Harry" being larger and more prominent than the last name "Reid".

HARRY REID  
Majority Leader

cc: The Honorable Timothy Geithner  
Secretary of the Treasury

The Honorable Steven Chu  
Secretary of Energy

The Honorable Peter Orszag  
Director of the Office of Management  
and Budget

**From:** James C McCrea [REDACTED]  
**Sent:** Thursday, October 14, 2010 3:50 AM (GMT)  
**To:** 'Heimert, Kimberly' [REDACTED]  
**Subject:** RE: SWIP -- FERC Approvals

---

And we are in agreement as usual. You should have seen what came in from Treasury tonight that they want us to do for every deal. Over the top and will slow us way down.

Jim

---

James C. McCrea  
**JAMES McCREA & ASSOCIATES LLC**

[REDACTED]  
Wilton, CT 06897  
Phone: (203) [REDACTED]  
Fax: (203) [REDACTED]  
jimmccrea@ [REDACTED]

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**From:** Heimert, Kimberly [REDACTED]  
**Sent:** Wednesday, October 13, 2010 11:47 PM  
**To:** 'jimmccrea' [REDACTED]  
**Subject:** Re: SWIP -- FERC Approvals

Understand. And am getting the details on the ferc approval confirmed from Shearman. I think it is largely administrative, in reality. However, I think it would be a mistake to rest on administrative, will fund about the same time as issue the guarantee, etc. We (and OMB) have huge political pressure to get this deal done. It is a good opportunity for us to make them feel the pressure to either let us do what we think is a good credit/business decision or to not let us issue a cc in a timely manner. Just my view....

---

**From:** James C McCrea [REDACTED]  
**To:** Heimert, Kimberly; rasso; [REDACTED]; stewartjuli [REDACTED]; sashulman [REDACTED]; Stamos, John  
**Sent:** Wed Oct 13 23:38:44 2010  
**Subject:** RE: SWIP -- FERC Approvals

Kimberly --

I have already made exactly that same point to Jonathan earlier this evening. That is indeed the key. The e=second thing is that for good transaction structuring, I take a very dim view of setting up CP that you expect to have to waive.

However, the policy issue is a huge one for the FLIP structure.

Jim

---

James C. McCrea  
**JAMES McCREA & ASSOCIATES LLC**

[REDACTED]  
Wilton, CT 06897  
Phone: (203) [REDACTED]  
Fax: (203) [REDACTED]  
jimmccrea@ [REDACTED]

**From:** Heimert, Kimberly [mailto: [REDACTED]]  
**Sent:** Wednesday, October 13, 2010 11:18 PM  
**To:** 'jimmccrea@ [REDACTED]'; 'rsass@ [REDACTED]'; 'stewartjulie@ [REDACTED]'; 'sashulman@ [REDACTED]'; Stamos, John  
**Subject:** Re: SWIP -- FERC Approvals

As a practical matter, we could probably change the term sheet to make it a CP to closing. However, I don't think that is a wise decision from a policy perspective. There will be deals in the future that will or will not be able to be done on the basis of this issue.

I think the other questions are secondary to the primary policy issue. And the fact that there is NO additional risk to us to make it a CP to funding rather than closing.

If we give this up on this deal, it will make it very hard to maintain it on other deals. This is probably THE most important CP to the "flip" structure.

Happy to talk in the morning.

Kimberly

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**From:** James C McCrea [REDACTED]  
**To:** Renee Sass [REDACTED]; 'Julie Stewart' [REDACTED]; Heimert, Kimberly; 'Steve Shulman' [REDACTED]; Stamos, John  
**Sent:** Wed Oct 13 22:28:26 2010  
**Subject:** SWIP -- FERC Approvals

I am working on some stuff for Jonathan in response to a call he received from Alex Mas of OMB. The issue seems to be that OMB wants FERC approvals to be a CP of closing rather than funding even if they have to be waived. So, I went to the term sheet and the credit paper to understand the issue. The term sheet clearly makes FERC approval a CP of first funding (10(f)(j)). However, the Credit Paper, in numerous places (pages 8, 12, 49) makes it clear that FERC approval is a CP to closing and in one place (page 5) lists it as a CP to advances.

The presentation is not clear on the topic only indicating that there will be FERC approval.

Exactly what FERC approvals are required?

When are they required? As a CP to closing or to funding?

How certain are we that in this case, closing and funding will only be days apart?

I believe that the term sheet is likely correct and the credit paper likely incorrect. Accordingly, we are going to have to issue a correction/clarification. In doing so, we need to explain the FERC approvals, when they are expected, what CP they will satisfy, and if it is a CP of funding, we will need to articulate why we expect closing and funding to occur close together and the basis for that view.

This correction/clarification will have to be ready on Thurs, for issuance to OMB, Treasury, and Credit Committee and we will need to concisely address it at the Treasury briefing without dwelling upon it.

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC  
[REDACTED]

Wilton, CT 06897

Phone: (203) [REDACTED]

Fax: (203) [REDACTED]

jimmccrea@[REDACTED]



**From:** McCrea, Jim [REDACTED]@Hq.Doe.Gov>  
**Sent:** Thursday, September 2, 2010 5:35 PM (GMT)  
**To:** [REDACTED]  
**Subject:** FW: Shepherds Flat

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Email #11

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From: Silver, Jonathan  
Sent: Thursday, September 02, 2010 1:35:28 PM  
To: McCrea, Jim  
Subject: RE: Shepherds Flat  
Auto forwarded by a Rule

What does this actually mean? Are we ready to close? The secretary will sign the loan tomorrow afternoon. We need to do that so that Reid can announce in Nevada on Monday.

Are we good to go?

Fraser just came by to say it was in Stripes (or whatever) and ready to send. I'm not sure I understand who is sending what to whom. Can you call me.

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
[REDACTED]

-----Original Message-----

From: McCrea, Jim  
Sent: Thursday, September 02, 2010 1:15 PM  
To: Silver, Jonathan; Harbut, Brandon; Otness, Chris  
Subject: Shepherds Flat

Shepherds Flat has been transmitted to OMB. I am starting transmittal to Treasury. In both cases, I am requesting a time to brief them as soon as possible.

Jim

Jim McCrea  
Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

JM\_00187108

# THE DEPARTMENT OF ENERGY

## Office of Public Affairs

News Media Contact:  
(202) 586-4940

For Immediate Release:  
Tuesday, September 7, 2010

### **Department of Energy Issues Loan Guarantee Supported by Recovery Act for Nevada Geothermal Project**

*First Deal to Close Under DOE's Financial Institution Partnership Program*

Washington D.C. — Energy Secretary Steven Chu today announced a partial guarantee for a \$98.5 million loan to the 49.5 megawatt Blue Mountain geothermal project in Humboldt County in northwestern Nevada. The loan guarantee is being issued to John Hancock Financial Services to support a loan to a subsidiary of the Nevada Geothermal Power Company.

“Our support for the Blue Mountain project is part of the Administration’s commitment to reducing carbon emissions while creating clean energy jobs,” said Secretary Chu.

“Thanks to the leadership of Senator Reid and others in the Nevada delegation, Nevada continues to be a leader when it comes to generating clean, renewable sources of energy,” said the Secretary.

“As I led passage of the stimulus bill, I worked to include the loan guarantee program to help finance clean energy projects like Blue Mountain geothermal that will put Nevadans back to work and bring us closer to energy independence,” said Nevada Senator Harry Reid. “Secretary Chu has been to Nevada many times and I thank him for recognizing the Silver State as a leader in developing these clean energy resources.”

The Blue Mountain project consists of a geothermal well field and fluid collection and injection systems that enable energy to be extracted from rock and fluid below the Earth’s surface, and a power plant that converts geothermal energy into electricity. The energy produced by the power plant is free of greenhouse gas emissions and other air pollutants. The project has a 20-year power purchase agreement to sell electricity and renewable energy credits to the Nevada Power Company.

The loan guarantee was issued under the Financial Institution Partnership Program (FIPP), a Department of Energy program supported by the American Recovery and Reinvestment Act. FIPP is designed to expedite the loan guarantee process for renewable energy generation projects that use commercial technologies and to expand credit capacity for financing of U.S. renewable energy projects. In a FIPP financing, DOE provides a partial guarantee for up to 80 percent of a

announcement, the Department of Energy  
commitments for loan guarantees to sup  
please visit <http://www.lgprogram.energy>

###



**From:** Fridell, Monique [REDACTED]@hq.doe.gov>  
**Sent:** Wednesday, March 23, 2011 9:59 PM (GMT)  
**To:** 'jimmccrea' [REDACTED]  
**Subject:** Re: Tonopah credit issues

---

I understand  
I wouldn't want to proceed if you were not comfortable but I would hope we can find another way to get you there  
Today I'm out of ideas

---

**From:** Jim McCrea [REDACTED]  
**To:** Fridell, Monique  
**Sent:** Wed Mar 23 17:44:47 2011  
**Subject:** RE: Tonopah credit issues

Monique –

The other thing on which I need to be clear is that as a contractor and not a Fed, I don't get to make decisions but rather I only get to make recommendations to the Feds. I expect that there will be a discussion and there is no certainty that my recommendation will prevail.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]

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**From:** Fridell, Monique [REDACTED]  
**Sent:** Wednesday, March 23, 2011 5:36 PM  
**To:** 'Jim McCrea'  
**Subject:** RE: Tonopah credit issues

OK

---

**From:** Jim McCrea [REDACTED]  
**Sent:** Wednesday, March 23, 2011 5:35 PM  
**To:** Fridell, Monique  
**Subject:** RE: Tonopah credit issues

Monique –

Actually, at a time like this, it is imperative that I send this note to the senior Federal team with my recommendation. My recommendation is to kill the transaction.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]

[REDACTED]

---

**From:** Fridell, Monique [REDACTED]  
**Sent:** Wednesday, March 23, 2011 5:29 PM  
**To:** 'Jim McCrea'  
**Subject:** RE: Tonopah credit issues

Jim, I know you feel strongly about this, but I don't see the need to copy people who are not even involved in this transaction. Susan, Dong and Owen have not been involved in our discussions on the EPC subject, and frankly it is really up to you, John and Alok, not those three at this point.

We have been told yesterday and today that the keepwell is not going to be possible. So the bottom line is compromise or kill the deal, and that is really your and Jonathan's call. Personally I would hope we can find some middle ground.

Monique

---

**From:** jim McCrea [REDACTED]  
**Sent:** Wednesday, March 23, 2011 5:11 PM  
**To:** Silver, Jonathan; Barwell, Owen; Frantz, David; Richardson, Susan  
**Cc:** Fridell, Monique; Repetti, Ted; Alok Mathur; jravis@scullycapital.com; 'Brian Oakley'; Kim, Dong; 'Patrick Thomas'  
**Subject:** RE: Tonopah credit issues

Jonathan *et al.*

As Alok notes below, the applicant is not accepting our request for a keep well relating to the guarantor which is not the ultimate parent. Excerpted from below, what we asked for is:

The parent, Grupo ACS, shall provide a "keep well agreement" that basically provides for the following: (a) Grupo ACS recognizes the guarantee being provided by Industrial Services division for the obligations of CUSA; (b) Grupo ACS agrees not to take any actions that could deteriorate the credit of the Industrial Services division; and (c) Grupo ACS shall undertake all actions within its power to ensure that the net worth of the Industrial Services division does not deteriorate from its present position until the project has achieved the Continuous Performance Test for the Tonopah solar project in the US.

We believe that the ask on the keep well is reasonable since without the keep well on these terms, the EPC contractor parent could take actions that severely weaken or destroy the credit upon which the transaction would be based rendering the credit analysis meaningless. The EPC contractor has a very heavy exposure on this transaction and Credit's strong recommendation has always been an LOC securing the EPC contractor's obligations. However, Solar Reserve has offered an intermediate credit rather than an LOC. Based on review of that credit by the Credit team, we are willing to recommend acceptance of that credit (ACS Servicios Comunicaciones y Energia S.L) but only with a keep well as outlined above. In the absence of a keep well, Credit cannot evaluate the credit and accordingly, would strongly recommend against accepting that credit and equally strongly recommend requiring an LOC to support the significant obligations of the EPC contractor.

While the mechanism for distribution of the 1603 grant proceeds prior to full completion of the project remains to be negotiated upon development of an appropriate test (Issue #2 below), we are extremely concerned about the related party issues on this transaction (Issue #3 below). Solar Reserve has a contract related to the project construction for up to \$430MM plus on-going O&M obligations. Credit remains extremely concerned about the difficulties in determining whether, in this

case, the Solar reserve contractual arrangements approximate an arm's length and reasonable transaction.

Alok, John and I are available if there are questions.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

**From:** Alok Mathur [REDACTED]  
**Sent:** Wednesday, March 23, 2011 4:51 PM  
**To:** Jim McCrea  
**Cc:** John Ravis; Brian Oakley  
**Subject:** Re: Tonopah credit issues

Hi Jim:

John and I need to give you a quick 'heads up'. This is where we stand after a couple of rounds with Michael Whalen of SR:

1. On the EPC guarantor issue, we made absolutely no progress. SR and their lawyers claim that our request for a "keep well" from the parent is not justified, not market, and simply not deliverable. We have stated that we cannot accept the EPC guarantor without the "keep well". So, there is a standoff. They have told us that they will appeal to Jonathan (and, I suspect, Harry Reid), so you need to be prepared for that.
2. On the distribution of the cash grant and dividends during the CPM period, we told them that our technical team and the IE are looking at the issue to see if these can be released by passing a new test. SR wants to see if they can get the entire cash grant released after the test, but are flexible with regard to a deferral of dividends.
3. On the related party issue, they do not accept a different structure but will agree to full disclosure on costs, profits, etc. They will also look at any reps required by DOE.

We have decided not to release the draft Term Sheet, pending a satisfactory resolution to item 1 above.

You can call John or me, if you have a question or need more details of the interaction (which went on for several hours, in aggregate).

Best regards,

Alok

On Tue, Mar 22, 2011 at 1:40 PM, Alok Mathur [REDACTED] wrote:  
Couple of typos. See corrections in bold.

On Tue, Mar 22, 2011 at 1:33 PM, Alok Mathur [REDACTED] wrote:

Hi Brian:

John and I are facing 3 issues on the Tonopah solar project, for which we need a decision from Credit (prior to releasing a conditional Term Sheet). Here are the issues and the background:

### Issue #1: EPC Credit.

The Project will be built under a fixed-price, turn-key EPC contract from Cobra CSP USA (CUSA), a U.S.-based subsidiary of Cobra Thermosolar S.L. which builds thermosolar projects worldwide and is wholly-owned by Cobra Instalaciones y Servicios S.A. (CIS), which is responsible for industrial construction worldwide. The CUSA unit is being established to construct CSP projects in the US and Tonopah will be its first US project.

CIS has extensive experience in the construction and operation of CSP plants and it is a wholly-owned subsidiary of Cobra Gestion de Infraestructuras S.A. (CGI). CGI, in turn, is the largest operating company within ACS Servicios Comunicaciones y Energia S.L. (Industrial Services division) of Grupo Actividades de Construccion y Servicios S.A. (GACS), the parent company. GACS also has two other operating divisions.

Given the number of layers in the organization, we had required that the obligations of CUSA be guaranteed by the eventual parent, GACS. However, the applicant has informed us that the best they can offer is a guarantee from the Industrial Services division, which is one level below the parent holding level. Maquairie (the financial advisor to the sponsor) has performed an analysis of the Industrial Services division and has concluded that it is a BBB risk. Credit has reviewed this analysis and concurs with the rating.

We propose accepting the guarantee from the Industry Division because the parent has no real activities other than holding the 3 divisions, subject to the following conditions to be specified in the Term Sheet:

1. The financials of ACS Servicios Comunicaciones y Energia S.L shall be acceptable to DOE in its sole direction;
2. The parent, Grupo ACS, shall provide a "keep well agreement" that basically provides for the following: (a) Grupo ACS recognizes the guarantee being provided by Industrial Services division for the obligations of CUSA; (b) Grupo ACS agrees not to take any actions that could deteriorate the credit of the Industrial Services division; and (c) Grupo ACS shall undertake all actions within its power to ensure that the net worth of the Industrial Services division does not deteriorate from its present position until the project has achieved the Continuous Performance Test for the Tonopah solar project in the US.

Jim is aware of the issue and has been briefed, but we have not yet gotten a response from him.

### Issue #2: Restricted Payments during the CPM test.

This project has a pretty rigorous Provisional Acceptance test, following which, the contractor must operate the project over a continuous 12-month period at guaranteed levels before passing the Continuous Performance Measurement (CPM) test. The CPM test lasts for up to 36 months because of the 12-months period. However, during the CPM test, the EPC contractor must pay operating costs and debt service, to the extent the plant does not generate sufficient revenue.

We have restrictions on the release of the cash grant (and any potential dividends) until the CPM test has been met. Since this may not happen for 36 months after Provisional Acceptance, the sponsor is unable to raise the balance of the equity.

We are working with the IE and the Technical team to design an intermediate test to verify the adequacy of the project and, depending on how well it is met, we would release a portion or all of the cash grant and potential dividends. So, the Term Sheet would state that any release of cash would be contingent on an interim test to be defined later.

### Issue #3: Related Parties.

In the project, the sponsor, SolarReserve (SR) has multiple roles, including: sponsor and project developer, equity investor (10-15%), technology licensor (they purchased exclusive rights from Pratt & Whitney Rocketdyne (PWR, a subsidiary of United Technologies), equipment subcontractor (they have a subcontract that could be as large as \$430 million, with a back-to-back from PWR), and on-going maintenance support (also back-to-back with PWR). The latter two structures are because PWR can no longer license or manufacture CSP equipment, unless they go through SR.

We have so far told SR that this structure is not acceptable to DOE (given the recent experience with CVSR). SR has responded that changes are not possible and the discussion has been kicked upstairs to the Jim McCreia and Jonathan Silver level.

We suggest that we simply reinforce what we have already told SR. The present subcontract arrangement is not acceptable to DOE and they need to restructure along the following lines: (a) Technology license from SR directly to the EPC Contractor; (b) equipment supply and other services (such as engineering, O&M support, etc.) directly from PWR to the EPC Contractor, on the understanding that their technology license agreement will need to be amended to permit PWR to do this as an exception; and (c) any development services provided by SR (including prior development costs)

to be based on a direct services contract between SR and the Project Company. Right now, we have a structure that resembles scrambled eggs.

Here is what we need:

1. A decision on the above issues; and
2. The deal team has requested a half-hour conference call with Jim McCrea to explain our position and answer any related questions from origination, technical, and legal. We would like you to represent Jim.

Thanks,

Alok

**From:** Alok Mathur [REDACTED]  
**Sent:** Wednesday, March 23, 2011 11:34 PM (GMT)  
**To:** jravis@ [REDACTED]  
**Cc:** McCrea, Jim (CONTR) [REDACTED]; James C McCrea [REDACTED]  
**Subject:** Re: SR Tonopah

---

John and I have pretty thick skins (a necessary qualification in this business), but I have to agree with John.

Michael has a very arrogant attitude and has accused us of 'wasting his time', not being in touch with the 'market' for this type of financing (I did not know there was a market for 25 year project finance loans with a 37.5 basis spread), charging them fees for evaluating their credit, requiring farcical covenants, and other inflammatory statements. Mostly, we do not react but, on occasion, when he really starts getting emotional and thoroughly obnoxious, John and I have felt compelled to come back.

He treats the DOE with very little respect and seems to behave as if we are the applicant, beseeching him for the privilege of lending to his project, as opposed to the other way around.

He has taken this attitude because nobody (to-date) has told him where to get off and he is convinced that with Harry Reid's backing, he can get Jonathan to agree to anything. So, he keeps threatening the deal team. When he did that again today after berating our failure to understand the market, I told him to go ahead because we had reached a point of diminishing returns.

Alok

On Wed, Mar 23, 2011 at 7:17 PM, jravis [REDACTED] wrote:  
Jim,

Just to let you know, while we were discussing the EPC Contract issues with Solar Reserve, when we reached an impasse, their CFO Michael Whalen, threatened to go scorched earth on the DOE in the press about our uncommercial and unrealistic positions.

Best regards,

John

JOHN G. RAVIS  
Scully Capital

[REDACTED]

**From:** jim McCrea <jimmccrea@[REDACTED]>  
**Sent:** Friday, December 10, 2010 5:18 AM (GMT)  
**To:** 'Silver, Jonathan' <[REDACTED]@hq.doe.gov>  
**Subject:** RE: OMB Policy Decision on Recovery Rates

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Email #13

Yes, that is the one I was thinking of.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
Sent: Friday, December 10, 2010 12:16 AM  
To: jimmccrea@[REDACTED]  
Subject: Re: OMB Policy Decision on Recovery Rates

With the french ambassador.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]@hq.doe.gov

----- Original Message -----

From: jim McCrea <jimmccrea@[REDACTED]>  
To: Silver, Jonathan  
Sent: Fri Dec 10 00:14:17 2010  
Subject: RE: OMB Policy Decision on Recovery Rates

Great. I can fill you in at your convenience.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
Sent: Friday, December 10, 2010 12:12 AM  
To: jimmccrea@[REDACTED]  
Subject: Re: OMB Policy Decision on Recovery Rates

3:30

Jonathan Silver  
Executive Director

JM\_00059391

Loan Programs  
U.S. Department of Energy

[REDACTED]@hq.doe.gov

----- Original Message -----

From: jim McCrea <jimmccrea@[REDACTED]>  
To: Silver, Jonathan  
Sent: Fri Dec 10 00:05:18 2010  
Subject: RE: OMB Policy Decision on Recovery Rates

We should talk about the interagency review promised in advance of a meeting that I believe you have scheduled for tomorrow. It is possible that you will be asked about it and I have some thoughts for you on the meeting in general. Don't know what time the meeting is but I do need to talk with you briefly in advance of it.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
Sent: Thursday, December 09, 2010 11:38 PM  
To: Hurlbut, Brandon  
Subject: Fw: OMB Policy Decision on Recovery Rates

One more thing.

It also doesn't mean anything. These guys don't decide real policy. If we decide we care -and at this point, its not my focus- I assume we can always engage at the low, chf, rouse level.

We should also see what happens with the cbo analysis. But, do they think this hurts us in some way? Its a kind of childishness I just haven't seen in my professional life in many years.

One other thing. Since aldy personally promised the cdf management group that he would lead an inter-agency review of this topic, we should tell him that he should be the one to call and deliver the news. They will undoubtedly ask for omb's analysis...and we know there isn't one.

Who would have thought there would be such slavish devotion to an arbitrary number? It would be funny if it weren't tragic.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]@hq.doe.gov

----- Original Message -----

From: Barwell, Owen  
To: Silver, Jonathan  
Sent: Thu Dec 09 22:11:41 2010  
Subject: OMB Policy Decision on Recovery Rates

Jonathan

I did not have the chance to de-brief a short call I received from Rick Mertens, around 5pm today.

He, and Aldy, Mas, and Nabors had met (not sure when) and made a policy decision on recovery rates (the term "policy decision" seemed to have some formal significance, though I am not sure what). We had conveyed an alternative approach to recovery rates

JM\_00059392



beyond the 55% with notching. They believed there were issues with our proposal (though as I did not have our proposal, I could not argue one way or another) such that it was not any better than status quo. The current method would therefore prevail for 2012 budget purposes.

However, Rick did accept that the 55% with notching method was not perfect, and he would like to see this method improved. His suggestion was to understand the characteristics and attributes of what kind of project would lead to a recovery rate of 55%. I.e. try to improve the underpinning behind what has started out and remains an arbitrary number. He thought this would avoid having to re-litigate on the recovery rate and notching as projects were presented to OMB. I offered that this would only work (amongst other things) if there was an openness to our justification for any notching. He thought OMB's approach would help in this regard.

I asked that I run this past you, as I was not familiar with what we had proposed and its history (though I guess the driver was Constellation).

How would you like to play it? OMB's approach seems logical, but without a little more of the background, I do not know how we come out of this proposal. At the very least, there seems to be a willingness to improve the method, as well as some wriggle room for puts and takes.

Happy to lead.

Cheers, Owen

Owen F. Barwell  
Chief Operating Officer, Loan Programs Office U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585



**From:** James C McCrea [REDACTED]  
**Sent:** Tuesday, May 25, 2010 6:24 PM (GMT)  
**To:** 'Julie Stewart' [REDACTED]; 'Renee Sass' [REDACTED]  
**Subject:** RE: UniStar

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Don't really know what all this will mean other than life will be crazy. Have to wait for the dust to settle a little bit

Jim

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James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

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**From:** Julie Stewart [REDACTED]  
**Sent:** Tuesday, May 25, 2010 2:22 PM  
**To:** James C McCrea; 'Renee Sass'  
**Subject:** Re: UniStar

Thanks for the heads' up.... with this acceleration will AES stay on the same schedule as outlined earlier?

Julie Stewart  
Stewart Energy Consultants LLC [REDACTED]

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We cannot accept any liability for any loss or damage sustained as a result of software viruses and would advise that you carry out your own virus checks before opening any attachment.

At 02:01 PM 5/25/2010, James C McCrea wrote:

Gas pedal on this transaction just got tromped upon. 7<sup>th</sup> floor has decided mid June CRB. Not sure what that means nor do I think it will get through, even on the 7<sup>th</sup> floor. It has fallen to me to tell Monique and I am looking for her now but she is in a meeting. More details as this develops. However there has been a commitment from S1 to Steny Hoyer on this. Nothing like over committing and under delivering. Close hold for now but you needed to know.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

**From:** James C McCrea [REDACTED]  
**Sent:** Tuesday, May 25, 2010 10:14 PM (GMT)  
**To:** 'Fridell, Monique' [REDACTED]; 'Heimert, Kimberly' [REDACTED]; Duong, Hai' [REDACTED]; 'John.ashburne@[REDACTED]'; 'Sandra Claghorn' [REDACTED]  
**Subject:** RE: late breaking news

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Monique --

I absolutely love the expression "pineapple" as it is so fitting. I have been trying for days to identify the objects surrounding me and I could not think of the name. Now I know!!! See you on the other one as well.

Jim

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

**From:** Fridell, Monique [REDACTED]  
**Sent:** Tuesday, May 25, 2010 5:55 PM  
**To:** Heimert, Kimberly; Duong, Hai; john.ashburne@[REDACTED]; 'Sandra Claghorn'  
**Cc:** Jim McCrea  
**Subject:** late breaking news

Tean,

As of this afternoon, DOE has made political commitment to get Unistar through approval process by 6/15. This means I'll have to dedicate myself pretty much entirely to that deal to meet interim and final milestone. I will need your help in assuming most of the responsibility to get FW through closing OMB process. Hai and John, I will need you to help out Kimberly and Sandy in every financial way possible. Please keep me in the loop but basically I cannot do much at all for the next few weeks.

Sorry to leave you with this "pineapple" (expression in Brazil for a prickly problem)  
Monique

JM\_00076831

**From:** James C McCrea [REDACTED] Email #15  
**Sent:** Tuesday, June 1, 2010 5:31 PM (GMT)  
**To:** 'Fridell, Monique' [REDACTED], 'Paul Ameer' [REDACTED], 'reneeass@[REDACTED]'; 'boakley@[REDACTED]'; 'StewartJulie@[REDACTED]';  
**Cc:** 'Frantz, David' [REDACTED]  
**Subject:** UniStar Schedule

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Just came down from the Secretary's office. He is adamant that this transaction is going to OMB by the end of day Fri if not sooner. Not a way to do things but a direct order.

Jim

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James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

JM\_00076530

**From:** James C McCrea [redacted]  
**Sent:** Wednesday, June 2, 2010 12:58 PM (GMT)  
**To:** 'Fridell, Monique' [redacted]  
**Subject:** RE: UniStar

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Monique –

On this, you have to give him a break. He has so much on his plate I can't even imagine how he keeps half of it straight. I routinely have to send him things a several times over. I think that on this case, Wallace got to Hoyer who sat hard on St who now just wants if out of the Department.

Racing to a conf call. Will stop by to see you later this morning. Sounds like we are all making lots of progress.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[redacted]

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**From:** Fridell, Monique [redacted]  
**Sent:** Wednesday, June 02, 2010 8:51 AM  
**To:** 'James C McCrea'  
**Subject:** RE: UniStar

Sorry to vent, but.....I have explained this situation to him SEVERAL TIMES!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! I sent him the paperwork last month and highlighted the language!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! I cannot believe he doesn't remember.....

If he wants the inside poop, just call me and I will let you know, IT IS NOT A COFACE CONDITION, IT IS A EDF AND CONSTELLATION BOARD CONDITION.....I've explained that several times to him.....

And as I said to you, our leverage over the situation is very strong, they have NOWHERE ELSE TO GO.....

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**From:** James C McCrea [mailto:jimmccrea@optonline.net]  
**Sent:** Tuesday, June 01, 2010 10:16 PM  
**To:** Fridell, Monique  
**Cc:** Frantz, David  
**Subject:** UniStar

Monique –

Jonathan stopped by this evening and we had a good chat about where things stand on UniStar. I told him that we had achieved all my objectives with the briefing and that you had done an excellent job in an extended briefing. As a result of that effort, when OMB/Treasury/FFB gets the materials, they will not be starting from scratch and will clearly know what they are looking at and what the risks and issues are upon which they will want to focus.

One thing that Jonathan indicates that he is looking for is the Coface language that has the June 30 deadline.

JM\_00076476

I told him that I had no clue whether we had it or not. I am not even sure what he is asking for but apparently, S1 and then Jonathan have been told that the urgency is a result of a Coface deadline of some sort. On the other hand, it is entirely possible that people are just saying that there is a Coface deadline. At any rate, Jonathan is asking for the exact language.

If you don't have it or don't know what he is talking about, I think the next step is for us to see Jonathan, get clear guidance from him as to what he is after, and to then have you go back to UniStar to get what he needs.

Also, Monique, here is what I told the Credit team and the same goes for you:

"This is a race to a Friday submittal. Call me anytime you need me. My alarm goes off at 6 and I don't hit the sack before 1. If you get voice mail, send an e-mail as I get them in meetings better than phone calls or voice mails. Since Renee tends to send out e-mails at 3AM, you can call me then. Just expect the phone to ring longer and for me to be groggy when I answer!"

Jim

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James C. McCrea  
**JAMES McCREA & ASSOCIATES LLC**



JM\_00076477

**From:** James C McCrea [REDACTED]  
**Sent:** Friday, June 4, 2010 6:20 AM (GMT)  
**To:** 'Fridell, Monique' [REDACTED]  
**Cc:** 'pameer@[REDACTED]'; 'Renee Sass' [REDACTED]; 'Julie Stewart' [REDACTED]; 'Brian Oakley' [REDACTED]  
**Subject:** UniStar -- Equity True Up

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Monique --

Apologies for being blunt. However, we are running out of time on the credit paper and also time to debate points. Given the short time frame in which we have left, points that Credit makes in the pursuit of full disclosure are not optional. The equity true up is a very clear example. It needs to be highlighted in the paper with numbers. Ordinarily, over an issue like this, I would refuse to sign the credit paper and refuse to send it to OMB tomorrow but given the direct order I was personally given by S1, I will both sign and send even if you do not make the inclusion. However, to be clear and up front, in all DOE briefings, at credit committee and CRB, and at the OMB/Treasury/FFB briefing, Credit will be handing out a 1 pager on the topic. I have mentioned the equity true up to both Dave Frantz and Lach Seward as well as several other DOE staffers in order to test the sensitivity. Everyone with whom I have discussed the concept has thought it to be a significant issue and one which will generate a spirited discussion.

To be clear, in spite of not liking it personally, I am not making a judgment on behalf of DOE about it and am certainly not saying that it cannot be a feature of the transaction, especially at this late date. I am simply saying that the existence of this feature has to be fully and clearly disclosed so that those who do get a vote on such matters are aware of the feature. A billion dollar cash outflow to a sponsor at closing is not a trivial matter, especially where the cash for the outflow comes from DOE loan proceeds even if the cash flow ultimately reverses.

Again, my apologies for the bluntness but we cannot debate points like this.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

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**From:** John Woolard  
**Sent:** Thursday, November 11, 2010 2:37 AM  
**To:** [REDACTED]@hq.doe.gov  
**Cc:** Kris Courtney  
**Subject:** Re: tomorrow morning

Great - thanks again - look forward to catching up tomorrow. JW

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**From:** Silver, Jonathan <[REDACTED]@hq.doe.gov>  
**To:** John Woolard  
**Cc:** Kris Courtney  
**Sent:** Wed Nov 10 18:17:51 2010  
**Subject:** Re: tomorrow morning

You may not have gotten my other email.  
Address is [REDACTED] in Georgetown.  
Came anytime. Guest bedroom is ready.

I'll be back from my breakfast at 9:30.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

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**From:** John Woolard <[REDACTED]>  
**To:** Silver, Jonathan  
**Cc:** Kris Courtney <[REDACTED]>  
**Sent:** Wed Nov 10 21:13:05 2010  
**Subject:** tomorrow morning

Jonathan - Thanks for offering to meet at your house tomorrow morning. It looks like I land at Dulles at 7:20am - can you please send your address or let me know if it works out better for me to just land and grab a hotel for run/shower and meet later?

I truly appreciate your offer, and am fine either way. My "pre-meeting" is at 11:30 at the Hay Adams hotel. Regards, John

John Woolard / President, CEO / BrightSource Energy / [REDACTED]

[REDACTED]



**From:** john.bryson/sec/eix;ns [REDACTED]  
**Sent:** Tue Sep 06 2011 17:52:31 PDT  
**To:** "webster, meredith a." [REDACTED]@omb.eop.gov>;  
**Subject:** Re: Fw: President Obama Announces More Key Administration Posts

The same Melissa Moss. Very nice appointment! I didn't know of her arts involvements. She is a terrific person. When we have a chance, I will describe to you the dinner which she and her husband had at their Georgetown home for me at the end of January--a gathering of very experienced, smart, and savvy DC people.

**From:** "Webster, Meridith A." [REDACTED]@omb.eop.gov>  
**To:** "John.Bryson@edisonintl.com" [REDACTED]  
**Date:** 09/06/2011 05:34 PM  
**Subject:** Fw: President Obama Announces More Key Administration Posts

Please see this email below with some of the personnel announcements today.

Is this the same Melissa Moss you mentioned earlier on the phone?

**From:** White House Press Office - [REDACTED]  
**To:** Webster, Meridith A.  
**Sent:** Tue Sep 06 19:26:46 2011  
**Subject:** President Obama Announces More Key Administration Posts

THE WHITE HOUSE  
Office of the Press Secretary  
FOR IMMEDIATE RELEASE  
September 6, 2011

President Obama Announces More Key Administration Posts

WASHINGTON— Today, President Barack Obama announced his intent to nominate the following individuals to key Administration posts:

- Eduardo Arriola – Member, Board of Directors of the Inter-American Foundation
- Sara Aviel – United States Alternate Executive Director, International Bank for Reconstruction and Development
- Daniel Becker – Member, Board of Directors of the State Justice Institute
- Mark Francis Brzezinski – Ambassador to Sweden, Department of State
- Dana Bilyeu - Member, Federal Retirement Thrift Investment Board
- Steven H. Cohen - Member, Board of Trustees of the Harry S Truman Scholarship Foundation

- Bert DiClemente - Director, Amtrak Board of Directors
- James Hannah - Member, Board of Directors of the State Justice Institute
- David Jones - Member, Federal Retirement Thrift Investment Board
- Drew R. McCoy - Member, Board of Trustees of the James Madison Memorial Fellowship Foundation
  
- Adam Namm - Ambassador to the Republic of Ecuador, Department of State
- Wenona Singel - Member, Advisory Board of the Saint Lawrence Seaway Development Corporation
- Mary B. Verner - Member, Board of Directors of the National Institute of Building Sciences

The President also announced his intent to appoint the following individuals to key Administration posts:

- Jean Bailey - Member, President's Advisory Committee on the Arts on the John F. Kennedy Center for the Performing Arts
- Susan M. Dimarco Johnson - Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts
- Sonya M. Halpern - Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts
- Mattie McFadden-Lawson - Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts
- Melissa Moss - Member, President's Advisory Committee on the Arts on the John F. Kennedy Center for the Performing Arts
- Deborah Dozier Potter - Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts
- Kristin Gatchel Replogle - Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts
- Jennifer Scully-Lerner - Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts
- Ellen Schappas Richman - Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts
- Mary Rouse-Terlevich - Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts
- Ellen Susman - Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts
- Mona Sutphen - Member, President's Intelligence Advisory Board
- Harry Wilson - Member, Advisory Committee to the Pension Benefit Guaranty Corporation
- Philip Zelikow - Member, President's Intelligence Advisory Board

President Obama said, "I am confident that these outstanding men and women will greatly serve the American people in their new roles and I look forward to working with them in the months and years to come."

President Obama announced his intent to nominate the following individuals to key Administration posts:

Eduardo Arriola, Nominee for Member, Board of Directors of the Inter-American Foundation  
 Eduardo Arriola is the Chairman of the Board of Apollo Bank and the co-Founder of Inktel Direct, a provider of business solutions for direct marketing. He currently serves on the FBA-FDIC Advisory Board, the Florida Bankers Association BancServ Board of Directors and is a member of the Young Presidents' Organization. Mr. Arriola is a past president and board member of EO, a network of

entrepreneurs, and has previously served on the board of directors of Kristi House and City Year Miami. In 2011, he was awarded the Horizon Award by the Florida Bankers Association, in recognition of his commitment to the banking industry. Mr. Arriola is a graduate of Boston College.

**Sara Aviel, Nominee for United States Alternate Executive Director, International Bank for Reconstruction and Development**

Sara Aviel currently serves as a Senior Advisor to Secretary of the Treasury Timothy Geithner. In that capacity, she works on a range of issues including development policy, G-20 summits, the Strategic and Economic Dialogue with China, and formulating a response to the global financial crisis. Prior to joining the Administration, Ms. Aviel was on the leadership team for Root Capital, a social investment fund that provides financing to small and medium enterprises in developing countries. Previously, she was a Strategic Innovations Advisor at Mercy Corps, responsible for working directly with the Board of Directors to facilitate corporate partnerships and long-term strategic initiatives. Ms. Aviel also served as a Lecturer on international development and humanitarian relief at Yale College. She previously worked for CARE, both in Afghanistan and throughout Africa. Ms. Aviel holds an M.B.A. as well as M.A. and B.A. degrees in Political Science, from Yale University.

**Daniel Becker, Nominee for Member, Board of Directors of the State Justice Institute**

Daniel Becker has served as State Court Administrator at the Administrative Office of the Courts for the State of Utah since 1995. In that capacity, he is responsible to the Utah Supreme Court and Utah Judicial Council for the administration of the state court system. He was appointed by President Barack Obama to the Board of Directors of the State Justice Institute in 2010 and presently serves as Vice-Chair. From 1984 to 1995, Mr. Becker worked for the North Carolina Administrative Office of the Courts, serving in the positions of: Deputy Director (1993-1995); Court Services Administrator (1986-1993); and Assistant to the Director (1984-1986). He also held the positions of Trial Court Administrator for the Fourteenth Judicial District of North Carolina, and Assistant Director of Operations for the Georgia Administrative Office of the Courts. Mr. Becker was the recipient of the National Center for State Courts' 2001 Distinguished Service Award and the 2006 Warren E. Burger Award for Excellence in Judicial Administration. He holds a B.A. and M.P.A. from Florida Atlantic University.

**Mark Francis Brzezinski, Nominee for Ambassador to Sweden, Department of State**

Mark Francis Brzezinski is currently a partner in the Washington, D.C. office of McGuireWoods, where he specializes in anti-corruption law. Prior to his current role, Mr. Brzezinski served as a Director on the National Security Council from 1999 to 2001, focusing on issues relating to the Balkans, Russia, Eurasia and Southeast Europe. From 1996 to 1999, he was an attorney at Hogan & Hartson. From 1991 to 1993, he worked in Poland as a Fulbright Scholar. Mr. Brzezinski is a member of the J. William Fulbright Foreign Scholarship Board and the Council on Foreign Relations. He holds a B.A. from Dartmouth College, a J.D. from the University of Virginia School of Law and a Doctorate from Oxford University.

**Dana K. Bilyeu, Nominee for Member, Federal Retirement Thrift Investment Board**

Dana K. Bilyeu was first appointed to the Federal Retirement Thrift Investment Board in June, 2010. She is also the Executive Officer of the Public Employees' Retirement System of Nevada (NVPERS), serving in that position since 2003. Ms. Bilyeu began her employment with NVPERS in 1995, in the position of Operations Officer, overseeing all aspects of benefit administration for the System. Preceding her employment at NVPERS, Mrs. Bilyeu was the System's legal counsel in the Office of the Nevada Attorney General. Mrs. Bilyeu is a member of the executive committee of the National Association of State Retirement Administrators, and is a member of the National Council on Teacher Retirement, the National Conference of Public Employee Retirement Systems, and the National Association of Public Pension Attorneys. She also serves on the Public Employees' Board of the International Foundation of Employee Benefit Plans. Mrs. Bilyeu previously served as a member of the Social Security Advisory Board from 2007 through September 2010. She received her J.D. from

California Western School of Law and her B.A. from the University of Arizona.

**Steven H. Cohen, Nominee for Member, Board of Trustees of the Harry S Truman Scholarship Foundation**

Steven H. Cohen is the founder and President of the Cohen Law Group as well as a co-founder of the Whistleblower Action Network. Mr. Cohen is also an adjunct faculty member at the Northwestern Law School in Chicago, teaching clinical trial advocacy. He serves on the Board of Trustees for Beloit College, the Chicago School of Professional Psychology and the TCS Education System, and the Mikva Challenge Foundation, a Chicago based organization that engages Chicago area high school students in local and national political elections. Mr. Cohen received his Bachelor's degree from Beloit College and his law degree from the Northwestern University School of Law.

**Bert DiClemente, Nominee for Director, Amtrak Board of Directors**

Bert DiClemente was originally appointed to the Amtrak Board in June 2010. Mr. DiClemente recently retired as the Vice President of CB Richard Ellis, Inc., a position he had served in since 2003. Previously, he worked as Director of Insignia/ESG (1998-2003) and as Associate Director at Jackson Cross & Associates (1997-1998). He was responsible for the leasing and selling of commercial real estate and represented a number of Fortune 500 Companies. Mr. DiClemente also served as State Director for then United States Senator Joseph R. Biden, Jr., from 1977 to 1997. He received a B.A. in Political Science from the University of Delaware.

**Chief Justice Jim Hannah, Nominee for Member, Board of Directors of the State Justice Institute**

Chief Justice Jim Hannah is currently serving as Chief Justice of the Arkansas Supreme Court. He was first elected as an Associate Justice in 2000 and re-elected as Chief Justice in 2004 and 2008. He was appointed by President Barack Obama to the Board of Directors of the State Justice Institute in 2010. Prior to serving on the Arkansas Supreme Court, he served as a Chancery/Probate Judge in the 17th Judicial District from 1979 to 1999. Chief Justice Hannah maintained a private law practice for ten and a half years before he was elected to the trial bench. While in private practice, he also served as the city attorney for Searcy, Arkansas, as city attorney for several communities in White County, as a city judge for Kensett, Arkansas and Rosebud, Arkansas, as deputy prosecuting attorney for Woodruff County, and as the White County Juvenile Judge. Chief Justice Hannah has served as President on the Board of the Arkansas Judicial Council. He has served as Chairman of the Arkansas Judicial Resources Assessment Committee, Legislative Committee, and Retirement Committee. He has also served on the board of the Conference of Chief Justices and is currently serving as Co-Chair of the Committee of Families and Courts. In addition, he sits on the U.S. Supreme Court Judicial Conference Committee on Federal-State Jurisdiction and the Arkansas Supreme Court Committees on Technology, Child Support, and Foster Care. Chief Justice Hannah received a B.S.B.A. from the University of Arkansas, Fayetteville, and a J.D. from the University of Arkansas School of Law.

**David Avren Jones, Nominee for Member, Federal Retirement Thrift Investment Board**

David Avren Jones established D.A. Jones LLC, an independent consulting firm and trustee for a number of families and their entities, in 2004. Before the founding of his own firm, Mr. Jones was a managing director and the senior client executive at Deutsche Bank Private Wealth Management in New York. His other prior experiences include running his own investment advisory firm, Bannister Capital Management, and serving as CEO of Citicorp Securities Markets, Inc. in New York, where he was responsible for the firm's fixed income and foreign exchange businesses for North America. Mr. Jones also worked at Goldman Sachs as the fixed income trading manager in London. Mr. Jones has served as a member of the Treasury Borrowing Advisory Committee, as Vice Chairman of the Primary Dealers Committee and as a director of the Public Securities Association. He is a past Chairman of the Board of Trustees of The Jewish Home Lifecare System in New York and serves as the Chairman of Fund for the Aged, Inc. Mr. Jones is a graduate of Princeton University and the Harvard Business School.

**Drew R. McCoy, Nominee for Member, Board of Trustees of the James Madison Memorial Fellowship Foundation**

Drew R. McCoy is the Jacob and Frances Hiatt Professor of History at Clark University in Worcester, Massachusetts, and a specialist in American political and intellectual history from the Revolution to the Civil War. His numerous published works include *The Elusive Republic: Political Economy in Jeffersonian America*, a general study of political economy in Revolutionary and Early National America and *The Last of the Fathers: James Madison and the Republican Legacy*, a partial biography of James Madison that focuses on President Madison's retirement. Dr. McCoy received an A.B. from Cornell University and an M.A. and Ph.D. from the University of Virginia.

**Adam E. Namm, Nominee for Ambassador to the Republic of Ecuador, Department of State**  
Adam E. Namm is the Director of the Bureau of Overseas Buildings Operations (OBO) at the State Department. A career member of the Senior Foreign Service, class of Minister Counselor, Mr. Namm joined the Department of State in 1987. His most recent overseas assignment was as Management Counselor in Islamabad, with prior tours in Bogota, Dhahran, and Santo Domingo. His domestic assignments have included Executive Assistant in the Bureau of Administration, Director of the Office of Allowances, Special Assistant to the Under Secretary for Management, and both Desk Officer and Post Management Officer in the Bureau of Western Hemisphere Affairs. Mr. Namm holds an A.B. magna cum laude in International Relations from Brown University and an M.S. in National Security Strategy from the National War College.

**Wenona Singel, Nominee for Member, Advisory Board of the Saint Lawrence Seaway Development Corporation**

Wenona Singel is an Assistant Professor of Law at Michigan State University College of Law and the Associate Director of the Indigenous Law & Policy Center, where she teaches courses in the fields of federal Indian law and natural resources law. Ms. Singel is also an Associate Appellate Justice for the Little Traverse Bay Bands of Odawa Indians and the former Chief Appellate Judge for the Grand Traverse Band of Ottawa and Chippewa Indians. Previously, she was an Assistant Professor at the University of North Dakota School of Law and a Fellow with the Northern Plains Indian Law Center. Before teaching, Ms. Singel worked in private practice with firms that included Kanji & Katzen, P.L.L.C. in Ann Arbor, MI, and Dickinson Wright in Bloomfield Hills, MI. She served as a member of the Economic Development Commission of the Little Traverse Bay Bands of Odawa Indians and as General Counsel for the Grand Traverse Resort, a tribally-owned resort in northern Michigan. She is an enrolled member of the Little Traverse Bay Bands of Odawa Indians. Ms. Singel received an A.B. from Harvard College and a J.D. from Harvard Law School.

**Mary B. Verner, Nominee for Member, Board of Directors of the National Institute of Building Sciences**

Mary Verner is the Mayor of Spokane, Washington. Mayor Verner served on the Spokane City Council before she was elected mayor. She has also held a number of professional positions on behalf of the Native American community: she was a manager of natural resources with the Spokane Tribe of Indians, and she served as Executive Director of the Upper Columbia United Tribes. Mayor Verner serves on a wide variety of local boards and regional associations, and has led her City's programs to retrofit residential, commercial and public buildings to be energy-efficient. She received a B.A. from Davidson College, an M.A. from Yale University School of Forestry and Environmental Studies, and a J.D. from Gonzaga University School of Law.

President Obama announced his intent to appoint the following individuals to key Administration posts:

Dr. Jean Bailey, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts

Dr. Jean Bailey is a Graduate Professor of Human Development in the School of Education at Howard University. Additionally, she directs the Center for Drug Abuse Research and chairs the Howard University Republic of South Africa Project. Dr. Bailey has devoted her professional career to optimizing developmental outcomes for children and families. She currently serves on the Board of InventNow.Org and the National African American Drug Policy Coalition. Dr. Bailey received her B.S. from Southern University, and an M.S. and Ph.D. from Tulane University.

Cynthia Butler-McIntyre, Appointee for Member, Board of Trustees of the Christopher Columbus Fellowship Foundation

Cynthia Butler-McIntyre is the Director of Human Resources in the Jefferson Parish Public School System in Louisiana and the 24th National President of Delta Sigma Theta, a public service organization. She is a National Board Member of the National Council of Negro Women, a past National Board Member of the National Alliance of Black School Educators, and the Secretary of the Louisiana State Association of School Personnel Administrators. Ms. Butler-McIntyre holds an Honorary Doctorate of Divinity degree from Christian Bible College of Louisiana, an M.A. in Educational Administration from the University of New Orleans, and a B.A. in Early Childhood Education from Dillard University.

Susan M. DiMarco Johnson, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts

Susan M. DiMarco Johnson is a dentist, who worked in private practice until 1998. Ms. DiMarco Johnson is an active volunteer in numerous civic and arts related activities in New Jersey, New York, and Washington, DC. Currently, she serves on the board of EarthEcho International, an environmental education non-profit organization. She previously served on the Board of Directors of the Montclair Art Museum and as Vice Chair of the corporate board of the Covenant House, a privately-funded childcare agency in New York City. Ms. DiMarco Johnson received her degree in Dentistry from Georgetown Dental School.

Sonya M. Halpern, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts

Sonya M. Halpern is a former advertising sales and marketing executive who has worked for ESPN, Inc., The Walt Disney Company, and Cox Enterprises. She currently serves on the Board of Directors of the National Black Arts Festival and has served as Co-Chair of the Festival's annual gala for the past three years. Earlier this year, Ms. Halpern was appointed to the Atlanta Judicial Commission by Atlanta Mayor Kasim Reed. She holds a B.A. in Mass Communications from the University of Massachusetts and an M.B.A. from the University of Hartford.

Mattie McFadden-Lawson, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts

Mattie McFadden-Lawson is the President of MML Design & Consulting Group, an interior and exterior design company based in Los Angeles. Mrs. McFadden-Lawson currently serves on the Board of the Music Center/Performing Arts Center of Los Angeles County and is the Board Chair of Center Dance Arts/Music Center. She also serves as a founding member of the Dance Council of the Colburn School, Vice Chair of the Los Angeles County Arts Commission, and Board Member of the Ford Theater Foundation of the Los Angeles County Arts Commission. Ms. McFadden-Lawson received a B.A. from Brooklyn College, an M.A. from Howard University, and a M.P.A. from Harvard University.

Melissa Moss, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts

Melissa Moss is the President of Moss Advisors, based in Washington, DC. From 2002 until 2009 she was a Senior Vice President at Capital Guardian Trust Company and previously served as the CEO of Women's Consumer Network. Ms. Moss is currently on the board of the National Shakespeare Theatre, The National Symphony Orchestra, and Business Forward. She has also served on the boards of Wolf Trap, First Book, the National Building Museum, and the National Partnership for Women and Families. She received her B.A. from UCLA and a M.P.A. from Harvard University.

Deborah Dozier Potter, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts  
Deborah Dozier Potter is President of Trail Inc., a hotel and real estate development firm. Prior to this, Ms. Potter was an actors' agent and started her own talent agency and management company. Her memoir, *Let Buster Lead: Discovering Love, Post-traumatic Stress Disorder and Self-assurance*, was published in 2007 and she is a volunteer faculty member of The New Mexico School for the Arts. Mrs. Potter previously served on the President's Advisory Council on the Arts from 1993 until 2001.

Kristin Gatchel Replogle, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts  
Kristin Gatchel Replogle is President of the Replogle Family Foundation. Ms. Replogle currently serves on the board of directors for WakeMed Hospital, North Carolina State University's Institute for Nonprofits, SAFEchild, and the Girl Scouts. From 1990 to 1995, she was a speech pathologist at Massachusetts General Hospital, where she specialized in traumatic brain injury and was responsible for training graduate students. Ms. Replogle received her B.S. and M.A. in speech language-pathology from Miami University of Ohio.

Ellen Schapps Richman, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts  
Ellen Schapps Richman is an adjunct professor of marketing at Columbia Graduate School of Business. Prior to this, Ms. Schapps Richman was an associate adjunct professor of Marketing at Pace University's Lubin School of Business. She is on the Board of the United Way of Greenwich and current Chairman and former President of UJA Federation of Greenwich. Ms. Schapps Richman received a B.A. from Skidmore College and an M.B.A. from New York University's Stern School of Business.

Molly Rouse-Terlevich, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts  
Molly Rouse-Terlevich is as a Trustee of the Pennsylvania Chapter of the National Museum of Women in the Arts and of the Lewa Downs Wildlife Conservancy in Kenya and is a former Trustee of the Pennsylvania Ballet and the Tyler Arboretum. In addition, Ms. Rouse-Terlevich is involved in fundraising projects with numerous organizations including the Pennsylvania Academy of the Fine Arts, the Baldwin School and the University of Pennsylvania. Ms. Rouse-Terlevich received a Bachelor of Arts in English and a Masters of Education from the University of Pennsylvania.

Jennifer Scully-Lerner, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts  
Jennifer Scully-Lerner is a Vice President of Private Wealth Management at Goldman Sachs. In addition, she is the co-head of the Goldman Sachs firm-wide Women's Network and is the New York Chair of the Women's Leadership Forum. Ms. Scully-Lerner serves on the President's Council of the New York Public Library and on the International Board of Covenant House. She is an active mentor with Student Sponsor Partnership and a speaker at the annual Adventures of the Mind Conference. Ms. Scully-Lerner received her B.A. from Vanderbilt University and her M.B.A. from Columbia Business School.

Ellen Susman, Appointee for Member, President's Advisory Committee on the Arts for the John F. Kennedy Center for the Performing Arts

Ellen Susman is President of the Susman Family Foundation, which supports a variety of programs relating to the arts, justice, and the environment. Previously, Ms. Susman was the producer and host of "Balancing Your Life", an award-winning national PBS program celebrating the strength of women as they work to balance career and family. She has served on the Board of Directors of The Houston Grand Opera, the Alley Theatre, and The Houston Symphony Society Board. Ms. Susman received her B.A. from Briarcliff College.

Mona Sutphen, Appointee for Member, President's Intelligence Advisory Board

Mona Sutphen is currently a Managing Director at UBS covering geopolitical and policy risk matters. She served as White House Deputy Chief of Staff for Policy from 2009 until February 2011. Prior to joining the Administration, Ms. Sutphen was Managing Director for Stonebridge-International LLC and a Vice President at Currenex, an online institutional foreign exchange trading platform. From 1991 to 2000, Ms. Sutphen served as a U.S. Foreign Service Officer with postings on the National Security Council, at the U.S. Mission to the United Nations, in the Office of the High Representative in Bosnia, in the State Department's human rights bureau, and at the U.S. Embassy in Bangkok. She is a member of the Council on Foreign Relations. Ms. Sutphen holds a B.A. from Mount Holyoke College and an M.Sc. from the London School of Economics.

Harry J. Wilson, Appointee for Member, Advisory Committee to the Pension Benefit Guaranty Corporation

Harry J. Wilson is currently the Chairman and CEO of MAEVA Advisors, LLC, a boutique firm specializing in corporate restructurings. Mr. Wilson is a career private equity and distressed securities investor, having spent most of his career at The Blackstone Group and Silver Point Capital, where he was a partner. In 2009, he served as a senior member of the team at the US Treasury Department overseeing the restructurings of General Motors and Chrysler. Mr. Wilson has deep expertise in corporate restructuring and has invested across a broad array of asset classes throughout his career. He received an A.B. in government from Harvard College and an MBA from Harvard Business School.

Dr. Philip Zelikow, Appointee for Member, President's Intelligence Advisory Board

Dr. Philip Zelikow is the Associate Dean for the Graduate School of Arts and Sciences and the White Burkett Miller Professor of History at the University of Virginia. From 2005 to 2007, Dr. Zelikow served as Counselor of the Department of State. From 2003 to 2004, he was Executive Director of the National Commission on Terrorist Attacks Upon the United States (also known as the "9/11 Commission"). Dr. Zelikow was a member of the President's Foreign Intelligence Advisory Board from 2001 to 2003. From 1991 to 1998, he was an Associate Professor of Public Policy at Harvard. Dr. Zelikow was a career Foreign Service Officer from 1985 to 1991 and was detailed to the White House as Director for European Security on the staff of the National Security Council from 1989 to 1991. He taught for the U.S. Navy, at the Naval Postgraduate School, before entering the Foreign Service. A former trial and appellate attorney in Houston, he holds a B.A. from the University of Redlands, a J.D. from the University of Houston and a Ph.D. from the Fletcher School of Law and Diplomacy at Tufts University.

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**From:** James C McCrea <[REDACTED]>  
**Sent:** Wednesday, June 16, 2010 4:52 PM (GMT)  
**To:** 'Heimert, Kimberly' <[REDACTED]>@hq.doe.gov>  
**Subject:** FW: 28 Day Clock

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FYI

Jim

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James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: James C McCrea [REDACTED]  
Sent: Tuesday, June 15, 2010 11:19 PM  
To: 'Silver, Jonathan'  
Subject: RE: 28 Day Clock

Jonathan -

I do not have a good sense of why the DOE and OMB agreed to the 28 day clock following Solyndra. Perhaps Matt might have a better answer. I do know that it was designed to fit inside the Final Rule requirement (§609.9(f)) that an updated credit rating must be provided to the Secretary not later than 30 days prior to closing. The meaning of this requirement was debated during the Solyndra closing and the legal conclusion was that it meant no closer to closing than 30 days prior.

The credit rating cannot be obtained until the transaction documents are "near final" which I have been telling deal teams means the last turn before execution version when everything that could affect the credit rating is agreed upon and only minor elements of the main documents are being worked on. I have been explaining this to give them some leeway from having to have fully negotiated documents. Other less fundamental transaction documents may be in the process of being drafted but their content would not have credit implications.

Once the credit rating comes in, it takes Credit 2-3 days to review it and prepare the required cross walks to the earlier credit assessment that came in with the application and as well as the explanation of any differences between the DOE rating and that of the external credit rating. Both of those analyses are required by the agreement between DOE and OMB.

The more I think about it, I am not sure that the counsel and deal teams will generally be ready to close much before the 28 days have run. They have to do the final turn of the major transaction docs. They also have to complete the other transaction documents, negotiate opinions, confirm that all CPs have been met, and do all the other mechanical aspects of closing, get final cash flow schedules with final interest rate and spreads. They have to submit the final cash flows on which the transaction will close to OMB no later than 3 days prior to closing so that the numbers can receive final approval and the various steps to obligate can be taken which involved OMB, the CFO's office along with Loan Programs. My guess (although Kimberly Heimert or Ruth Ku could perhaps give a more precise perspective based on First Wind and Beacon) is that there is close to 3 weeks of work best case to get the transaction fully ready to close. Thought about that way, I am not sure that the 28 day process really is as much of a constraint as it might appear at first glance. Could it be speeded up a bit? Likely although not likely by more than a week in my view best case. In an ideal world, we would all strive to beat 28 days by as much as we can and get the Secretary to waive the 30 day requirement on the credit rating so we can close when everyone agrees that they are ready.

Jim

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James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]

**MEMORANDUM FOR DEPUTIES**

FROM: JOE ALDY

SUBJECT: Estimating the Implicit Subsidy of State Renewable Portfolio Standards

The principals agreed on total subsidy benchmarks for conventional commercial and innovative technology projects in the 1705 program. The principals concurred with the agreement by deputies that the total subsidy calculation would include the following: the 1603 grant (for renewable projects), 48C tax credit (for manufacturing projects), state tax credits, 5-year depreciation for renewables, value of the loan guarantee, and the benefits from selling at above-market rates into states with renewable portfolio standards (RPS). For the calculation of the RPS benefit, deputies had suggested that it would be based on a plug-in value estimated from the average of relevant conditional commitments to date. This memo presents RPS benefit estimates for three 1705 generation projects that have received conditional commitments.

**RPS Benefits in 1705 Wind, Geothermal, and Solar Generation Projects**

Based on independent credit reports solicited by the DOE loan guarantee program and from public documents submitted to state public utility commissions, Treasury staff generated estimates of the RPS benefit for the Shepherds Flat, USGeothermal, and Abengoa projects.

**Estimated RPS Benefits as a Share of Total Project Costs for Three 1705 Projects**

<u>Shepherds Flat</u>	<u>USGeothermal</u>	<u>Abengoa</u>	<u>Average</u>
12%	20%	16%	16%

These RPS benefits are estimated for the life of the power purchasing agreements (PPA) each facility has that enables compliance with a state RPS. In all three cases, the present value of the benefits are generated with a 10% discount rate and discounted to the first year of the PPA. The 10% rate exceeds the rates on the guaranteed and non-guaranteed debt in these transactions, but serves as a conservative, round value. A few comments on the calculations in the attached spreadsheets:

- In the Shepherds Flat analysis, the benefit estimate reflects the cost borne by Southern California Edison, as reported to and approved by the California PUC, for the PPA and the complementing natural gas power contract necessary to back-up the intermittent wind resource relative to California's reference market price. The reference market price is adjusted to reflect the value of the greenhouse gas adder.
- The USGeothermal analysis includes several calculations: (1) PPA versus market prices; (2) PPA versus estimated long-run prices (based on the constant change in market prices in the later years of the PPA); and (3) PPA versus the reference market price, also adjusted to reflect the value of the greenhouse gas adder. The estimated benefit of 20% is from the third of these

analyses, and is similar to the long-run cost analysis (21% subsidy) but much lower than the market price analysis (33% subsidy).

- The Abengoa analysis is based on comparing the PPA pricing to the levelized (long-run) cost of new natural gas generating capacity. This is a conservative estimate considering the assumed levelized cost of new natural gas generating capacity in the Abengoa credit report is 11¢/kWh, which is about 50% higher than what EIA assumed in its most recent Annual Energy Outlook.

#### **Options**

In light of this analysis, we would like to tee up three options for consideration by deputies:

1. Use the average value of 16% as the plug-in value for all 1705 renewable generation projects that market power to a state with a renewable portfolio standard.
2. Employ technology-specific plug-in values based on the technology-specific estimates for wind, geothermal, and solar from the table above.
3. Calculate project-specific RPS benefits estimates for 1705 applications in the pipeline. This would reflect data presented in credit reports and in public documents submitted to state public utility commissions. It would suggest that DOE should ensure that independent consultants continue to generate a "no RPS" scenario or a pricing based on the long-run cost of natural gas generating capacity scenario in their credit reports.

Please let me know of your agency's preference and we will attempt to secure interagency consensus via email. If we cannot reach consensus through email exchange, we will convene another meeting of the deputies.

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**From:** John Woolard  
**Sent:** Wednesday, January 13, 2010 12:21 AM  
**To:** Joshua Bar-Lev; 'Kline, Steven L.'  
**Subject:** RE: DOE Loan Guarantee

Should work well – will be in car around 3:30pm EST. JW

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**From:** Joshua Bar-Lev  
**Sent:** Tuesday, January 12, 2010 4:17 PM  
**To:** Kline, Steven L.  
**Cc:** John Woolard  
**Subject:** RE: DOE Loan Guarantee

Perhaps best to try for late tomorrow, after we see results of the meeting and while John is en route to airport and can brief us. John, how does that work for you?

---

**From:** Kline, Steven L. [REDACTED]  
**Sent:** Tuesday, January 12, 2010 4:12 PM  
**To:** Joshua Bar-Lev  
**Cc:** John Woolard  
**Subject:** RE: DOE Loan Guarantee

Joshua:

I'm really sorry (on multiple dimensions) to hear that the saga continues...  
I'm in SF this week, and definitely will make time for a conversation.  
Let me know what works for you.

5

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**From:** Joshua Bar-Lev [REDACTED]  
**Sent:** Tuesday, January 12, 2010 12:42 PM  
**To:** Kline, Steven L.  
**Cc:** John Woolard  
**Subject:** DOE Loan Guarantee

Steve, would you have a few minutes to discuss both 1) status of our efforts with DOE, and then 2) our strategy of trying to meet with 3-4 members (Reid, Boxer, Bingaman, maybe Feinstein) in early February to either say "huge problem, need your help" or "thank you for your assistance, but it could have been better" or something like that. John (and Jack et al) is arriving this afternoon in DC to have what we hope will be concluding and positive negotiations. Perhaps the two of you can meet briefly for coffee to catch up. Otherwise lets find a time to talk in next two days? For the Feb meetings, we are thinking that perhaps Peter would fly to DC to join a delegation of Vantage Point's chair Alan Salzman, Bechtel's representative, PG&E's chair Peter Darbee, and John Woolard. Joshua

Email secured by Check Point

Jonathan Silver

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**From:** Peter O'Rourke [REDACTED]  
**Sent:** Thursday, August 04, 2011 11:19 PM  
**To:** jonathan [REDACTED]  
**Cc:** Matt Winters  
**Subject:** Re: update

between you/matt/s2 and SolarCity's major push, it was a very effective.

On Thu, Aug 4, 2011 at 10:49 PM, Jonathan Silver [REDACTED] wrote:

Perhaps our additional efforts paid off.

They can't hate us much more than they do. Its so much fun to end run them.

Jonathan Silver

[REDACTED]

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**From:** "Peter O'Rourke" [REDACTED]  
**Date:** Thu, 4 Aug 2011 22:34:08 -0400  
**To:** Jonathan Silver [REDACTED]; Matt Winters [REDACTED]  
**Subject:** update

I've been told that the WH will call tomorrow and tell DOE that Strong is a 'go' and should move as quickly as possible Will believe when see it.

---

**From:** John Woolard  
**Sent:** Wednesday, January 13, 2010 9:53 PM  
**To:** 'stevven kiene [REDACTED]'; Joshua Bar-Lev  
**Subject:** Fw: DOE update

Would add the Ivanpah is only 300 MW of a 1300 MW commitment from BSE to PGE. Without the DOE loan guarantee PGE is at risk for losing entire commitment and CA is at risk for RPS requirements.

----- Original Message -----


**From:** John Woolard  
**To:** Darbee, Peter [REDACTED]  
**Sent:** Tue Jan 12 20:02:43 2010  
**Subject:** DOE update

Peter - I understand that you might be having breakfast with Secretary Chu tomorrow morning. We have now finalized every issue with DOE and undergone extensive technical and credit policy review. I believe it is safe to say that there are no outstanding issues with the loan guarantee, and we are simply stuck in the bureaucracy. We have a 400 MW project that is the most advanced of any project in the US from a permitting perspective, Bechtel is the EPC contractor assuming major risks on performance and cost, and DOE needs to get this deal done so that we can move forward. The risk is absolutely minimal relative to the \$14 billion nuclear project in the southeast with unproven nuclear technology that DOE has approved; we are boiling water to generate steam in a project that is 1/5 of the size.

It seems that there is no resistance at DOE but a fear of moving forward and a paralysis of analysis. If you want to drive the point home, you could let him know that if it is not approved we would likely move to build projects in China as it will be the final signal that the US is dysfunctional (only use this for emphasis if needed, of course we would work with PG&E on alternatives, but I think DOE needs to understand that their (in)actions have consequences). Thanks in advance if there is any way you can help move this forward. Bechtel and BrightSource are in a detailed project review and are ready to move this project forward. Regards, John

John Woolard / BrightSource Energy / [REDACTED], Oakland, CA 94612 / [REDACTED] / [REDACTED]



Morgan Wright 

**Re:**

4 messages

Morgan Wright   
Reply-To:   
To: Jonathan 

20 January 2010 01:12

Looks like we have two options tomorrow, both getting in late. There are no direct flights. Either way we'll be back for the full day on Thursday. I can work on the plane if you can send me anything in the morning.

M



-----Original Message-----

From: Jonathan Silver  
To: Morgan Wright  
Reply-To: Jonathan   
Subject: Re:  
Sent: Jan 19, 2010 09:49

I'm going to need you both back before then.  
Mtg tomorrow with omb and treasury. Thursday with Larry Summers and Carol Browner. Friday with Rahm.  
Jonathan Silver



-----Original Message-----

From: "Morgan Wright" <>  
Date: Tue, 19 Jan 2010 13:54:12  
To: <Jonathan >  
Subject: Re:

Thursday night around 9pm. About to get on plane now. I can call you from Dallas. Between email and eFax we should be ok but I'll check flight schedules for tomorrow as well.

-----Original Message-----

From: Jonathan Silver  
To: Morgan Wright  
Reply-To: Jonathan   
Subject:  
Sent: Jan 19, 2010 08:44

When are you and Dan back?  
You may need to come back earlier. We have major White House briefings tomorrow and at the end of this week.  
Jonathan Silver





Jonathan Silver <Jonathan [redacted]>  
Reply-To: Jonathan [redacted]  
To: Morgan Wright [redacted]

20 January 2010 06:03

Don't bother now, I think. The key mtg is Thursday at 11 and I need the work done today. We'll manage, but, good reminder that three days for a conf is probably too much. Hope its useful.  
J

Jonathan Silver



-----Original Message-----  
From: "Morgan Wright" <[redacted]>  
(Quoted text hidden)

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Morgan Wright <[redacted]>  
To: Jonathan [redacted]

20 January 2010 10:28

The better lesson is probably don't go to conferences in locations without multiple direct flights available. The instant we got on the plane yesterday morning the earliest we could get back is 6:30 this evening. Either way our flights are changed and we get in tonight.

My fax is [redacted] Send me stuff if you can.

(Quoted text hidden)

---

Jonathan Silver <Jonathan [redacted]>  
To: Morgan Wright [redacted]

20 January 2010 10:32

Great, but not necessary now. The document is in production and the mtg is tomorrow at 11. Don't worry. If its useful, stay. If its not useful, come back.

Jonathan Silver



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From: Morgan Wright <[redacted]>  
Date: Wed, 20 Jan 2010 10:28:38 -0500  
To: <Jonathan [redacted]>  
Subject: Re: [redacted]  
(Quoted text hidden)



**Jonathan Silver**

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**From:** Peter O'Rourke [REDACTED]  
**Sent:** Tuesday, August 02, 2011 4:41 PM  
**To:** Jonathan Silver  
**Subject:** strong

Matt has said that Strong will not be eligible for 1703, per the WH and Poneman... this is going to be a disaster. They will delay so that we can't close by Sept 30, and it's not going to get 1703.

I'm really uncomfortable with how this is being handled, from a reputation and other standpoints.

---

**From:** Jennifer Zerwer  
**Sent:** Wednesday, September 01, 2010 4:15 PM  
**To:** Senior Management Team; Arthur Haubenstock; John Mulligan  
**Cc:** Keely Wachs  
**Subject:** Media: Delays Plague Solar Energy on Fed Lands/AP

Team,

An article in the Associated Press examines the delay in developing solar power plants on federal land, noting that in the last five years, BLM has approved more than 73,000 oil and gas leases but has yet to give final approval to one solar lease. BLM's solar leasing system was a free-for-all, allowing developers to lay claim to prime sites, which has made it difficult for the BLM to separate the serious projects from the speculative ones. For example, an AP review of BLM's applications database found Goldman-owned Cogentrix Solar Services, LLC, the subsidiary with no previous solar experience, has staked more development claims in the Southwestern deserts than any other company. Its active lease applications cover about 120,000 acres – the equivalent of more than eight Manhattans. Under the Obama administration, more BLM staff have been hired to help weed out dormant applications so developers better suited for the job can be found. Officials say the administration is trying to avoid future land rushes by identifying the best solar locations with the fewest environmental impacts. The article notes that in September, at least two of the "fast-track" projects – by BrightSource Energy and First Solar-owned Nextlight – are expected to get the first solar permits issued by BLM. Photos of BrightSource's Ivanpah project are also featured in the online article.

JZ

**AP IMPACT: Delays plague solar energy on fed lands**

By Jason Dearen  
Associated Press  
September 1, 2010



*Caption: Electric towers and power lines cross the proposed site of a BrightSource Energy solar plant near Primm, Nev. on July 14, 2010. The presence of existing towers make the area a prime site for solar development.*

ROACH DRY LAKE, Nev. — Not a light bulb's worth of solar electricity has been produced on the millions of acres of public desert set aside for it. Not one project to build glimmering solar farms has even broken ground. Instead, five years after federal land managers opened up stretches of the Southwest to developers, vast tracts still sit idle.

An Associated Press examination of U.S. Bureau of Land Management records and interviews with agency officials shows that the BLM operated a first-come, first-served leasing system that quickly overwhelmed its small staff and enabled companies, regardless of solar industry experience, to squat on land without any real plans to develop it.

At a time when the nation drills ever deeper for oil off its shores even as it tries to diversify its energy supply, the federal government has, so far, failed to use the land it already has — some of the world's best for solar — to produce renewable electricity.

Nowhere is this more evident than in Nevada, where a Goldman Sachs & Co. subsidiary with no solar background has claims with the BLM on nearly half the land for which applications have been filed, but no firm plan for any of the sites.

The Obama administration says it is expediting the most promising projects, with some approvals expected as soon as September. And yet, it will be years before the companies begin sending electricity to the Southwest's sprawling, energy-hungry cities.

"Clearly we spent a lot of time and effort on oil and gas, but those priorities have changed," Ray Brady, BLM's head of energy policy in Washington, told the AP.

Congress in 2005 gave the Interior Department a deadline: approve 10,000 megawatts, or about five million homes' worth during peak hours, of renewable energy on public lands by 2015. Reaching that goal was left to the BLM, which oversees federal land and knows oil, gas and mining leases but is new to solar.

The Bush administration, however, kept BLM's focus on oil. BLM's database of solar applications shows many languished for years while the agency approved more than 73,000 oil and gas leases in the last five years. BLM has yet to give final approval to one solar lease.

BLM's solar leasing system ended up allowing developers to lay claim to prime sites — many located in the deserts that span California, Nevada and Arizona. All developers had to do was fill out an application, pay a fee and file development plans.

But many were so vague that it was difficult for BLM to separate the serious projects from the speculative ones.

"People were making [solar] applications on federal lands not knowing what kind of technology to propose and ... how to develop the land," Brady said.

In the Southern California desert near Palm Springs, for example, San Diego-based LightSource Renewables filed an application in August 2008 for 2,500 acres, BLM records show. The small, two-person development firm knew enough to recognize the land's worth — it was close to transmission lines — but had no previous experience with such projects.

Co-founder Paul Whitworth said it is now focusing on getting private land, and is not pursuing plans for its BLM site. The agency, however, still considers the application active, meaning other interested firms cannot access it.

"We don't know what technology will win or lose, and certain sites cater to certain technologies, but a good site is a good site," Whitworth said when asked why they filed their application. The firm has never filed a development plan, records show.

While dozens of smaller firms like Lightsource joined in the rush, BLM records show two Goldman subsidiaries filed 52 of the 354 applications throughout the region, more than any other company.

"Those 52 applications are an example of the problem of clogging up the system," said V. John White, executive director of the Sacramento, Calif.-based Center for Energy Efficiency and Renewable Technologies, a clean-energy advocacy group, in an e-mail. The system has limited access by experienced solar developers to the best sites.

"Some of these lease applications tied up more land than would be needed for a real project," he said.

For example, records show Goldman-owned Cogentrix Solar Services, LLC, the subsidiary with no previous solar experience, has a pending application for 13,440 acres in Nevada for a 1,400-megawatt solar plant. Another claim on land nearby asks for 22,400 acres for the exact, same-sized plant.

BLM records show other companies proposing the same type of solar plants were asking for 6,000-7,000 acres.

Over the years, BLM rejected applications or companies withdrew them, bringing the total active applications to 123.

Some of Goldman's California applications were withdrawn after U.S. Sen. Dianne Feinstein proposed last year that part of the Mojave Desert where some of the projects were proposed be declared a national monument. Now Goldman holds 10 of the 123, including eight that cover nearly half the land proposed for solar in Nevada.

An AP review of BLM's applications database found Cogentrix has staked more development claims in the Southwestern deserts than any other company. In Nevada alone, Cogentrix has applied for exclusive development rights on nearly as much federal land as all other companies combined. Its active lease applications cover about 120,000 acres — the equivalent of more than eight Manhattans.

"Goldman Sachs was one of the first applicants to dot the map with potential projects, and since then they haven't moved on any of them," said Gregory Helseth, the BLM's new renewable energy project manager in southern Nevada. "You can't hold the land forever. You can't be a prospector and hope somebody down the road wants to buy."

A Goldman representative defended the firm's solar investments, saying the Wall Street titan has since gained experience through its 2009 purchase of an aged solar facility in San Bernardino, Calif., that it was moving forward in good faith and was not blocking anyone. The company also announced this month it had reached a deal to build a small, 250-acre project in Colorado on private land.

"While we continue to pursue development of projects utilizing public lands in the Southwest, we have not held land reservations if they are determined not to be viable for future solar development," company spokesman Ed Canaday said in an e-mail.

The Obama Administration has identified 14 promising "fast-track" projects targeted for approval by year's end so they can qualify for stimulus funding. None of Goldman's claims are among them.

When completed, these facilities could generate 6,000 megawatts, enough electricity for several million homes during peak hours. There is a ready market for big plants, with California's strict climate change laws creating a huge demand among utilities for solar power.

Companies that hold BLM solar development applications are prohibited from selling them, but the companies themselves can be sold along with the potentially lucrative applications.

Tempe, Ariz.-based First Solar, an industry leader and a maker of solar panels, bought two smaller companies, including the companies' land rights and power agreements with utility companies. First Solar paid about \$400 million for

OptiSolar and \$285 million for NextLight. Analysts say the safe value of both companies likely was increased because they held BLM solar development applications.

First Solar spokesman Alan Bernheimer said the acquisitions were valued on the companies' signed agreements with utilities not on their BLM land positions.

In September, at least two of the "fast-track" projects — by Oakland, Calif.-based BrightSource Energy and by First Solar-owned Nextlight — are expected to get the first solar permits issued by BLM. Bringing plants online however will likely take years.

These fast-tracked sites are located on either side of the dormant Goldman lease near Roach Dry Lake, located about 35 miles south of Las Vegas, and will utilize the same Southern California Edison transmission lines that pass over Goldman's site.

Goldman spokesman Canaday said the company is still trying to work out a deal with a utility.

And BLM's Helseth said he still is seeking final plans from Goldman and Cogentrix. He said the agency's main problem was that there were too few employees available to work on the applications.

Under Obama administration, more BLM staff like Helseth have been hired to help weed out dormant applications so developers better suited for the job can be found. Officials say the administration is trying to avoid future land rushes by identifying the best solar locations with the fewest environmental impacts, rather having a free-for-all.

Critics say BLM should have done this in the first place and help avoid years of delay.

"BLM let people file applications willy nilly wherever they wanted," said Johanna Wald, a land-use attorney with the Natural Resources Defense Council.

###

Jennifer Z. Rigney  
Corporate Communications  
BrightSource Energy

p: [REDACTED]  
c: [REDACTED]  
e: [REDACTED]

<< image001.jpg (37.2KB)  
(37.2KB)  
>>

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**From:** John Woolard  
**Sent:** Wednesday, October 13, 2010 10:51 PM  
**To:** Keely Wachs; Joshua Bar-Lev; Arthur Haubenstock; John Mulligan  
**Cc:** Natalie Schaefer; Jack Jenkins-Stark  
**Subject:** Re: Event - Secretary of Energy

Let's use Jonathan - speaking in front of 500 people about our project will put him in a great negotiating position for last minute issues -

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**From:** Keely Wachs  
**To:** John Woolard; Joshua Bar-Lev; Arthur Haubenstock; John Mulligan  
**Cc:** Natalie Schaefer; Jack Jenkins-Stark  
**Sent:** Wed Oct 13 15:04:03 2010  
**Subject:** FW: Event - Secretary of Energy

Fyi - my feeling on the matter is we should try to leverage this to get an absolute with the Gov. He's a tentative yes and his people are pushing hard for his participation.

I'd love to have the Secretary there, but all of the invites are out with 160 participants already confirmed. If this were Obama or Biden, we'd have to do it, but I am not sure that this is the case in this instance. Thoughts?

Pls don't share externally.

Thanks,  
Keely

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**From:** Taylor, Sonia [REDACTED]  
**Sent:** Wednesday, October 13, 2010 2:54 PM  
**To:** Keely Wachs  
**Subject:** Event - Secretary of Energy  
**Importance:** High

The Secretary of Energy says he can come out there if the event is on 10/25 or 10/22. I know you already sent out invites, and I know this is not ideal, but unfortunately, this is what I can offer. If you don't move the date of the event, Jonathan will come.

Thanks!

Sonia Taylor  
Loan Programs  
U.S. Department of Energy  
1000 Independence Ave., SW  
Washington, DC 20585  
Room: [REDACTED]  
(O) [REDACTED]  
(C) [REDACTED]

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**From:** Carlos Aguilar  
**Sent:** Monday, June 07, 2010 9:12 PM  
**To:** 'andrew [REDACTED]'; Dana DuFrane; John Woolard; Joshua Bar-Lev; Charles Ricker; Keely Wachs  
**Subject:** Re: President Visit and Renewable Energy/Climate Change

Correct we saw it in the news here. Oil spill angst.

Carlos F Aguilar  
BrightSource Energy/Tel. [REDACTED] Cel. [REDACTED]

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**From:** Andrew Dyer [REDACTED]  
**To:** Dana DuFrane; John Woolard; Joshua Bar-Lev; Charles Ricker; Carlos Aguilar; Keely Wachs  
**Sent:** Mon Jun 07 14:06:51 2010  
**Subject:** Fw: President Visit and Renewable Energy/Climate Change

fyi - reply from the US Ambassador. The President cancelled his trip here over the weekend due to the ongoing issues in the Gulf.

But, looks like Jeff is out there pitching for us. NBLF = National Business Leaders Forum here in Australia - [www.nblf.com.au](http://www.nblf.com.au)

AD

----- Forwarded Message -----

**From:** "Bleich, Jeffrey L." [REDACTED]  
**To:** Andrew Dyer [REDACTED]  
**Sent:** Mon, June 7, 2010 9:21:54 PM  
**Subject:** RE: President Visit and Renewable Energy/Climate Change

Dear Andrew,  
Thank you for the nice note and materials, and congratulations on the DOE loan approval. I just gave a talk at the NBLF on U.S. investment in this technology and I agree that there is a good deal of information to share between our governments. I'm sorry that I'll miss you July 5-7; Diane is correct that I'll be on the road then. But I do hope we'll catch up soon.  
All the best,  
Jeff

---

**From:** Andrew Dyer [REDACTED]  
**Sent:** Friday, June 04, 2010 10:22 AM  
**To:** Bleich, Jeffrey L.  
**Subject:** President Visit and Renewable Energy/Climate Change

Dear Jeff

I trust this email finds you and Becky both well and that everyone is now settled in and enjoying our country.

Just following up from our recent discussion in Ballarat - I think there is a terrific opportunity with the President's proposed visit to Australia for him to promote to our Prime Minister and others the very direct action the US Government is taking to facilitate investment and action on large scale renewable power generation.

The US Federal DOE loan guarantee programs, coupled with the investment tax credit grant programs, are enabling companies like BrightSource Energy to confidently proceed with projects beyond a scale ever contemplated before to deliver reliable solar power to the US power grid.

Not only are these actions building critical assets to underpin the future sustainability of the US, they are also creating new industries, employment and bringing in significant foreign investment into the US.

Australia is still struggling to get such projects off the ground, amid times of uncertainty with ETS/CPRS, the RET and changes to resources rent taxes. Yet, much could be learned and achieved by adopting similar programs to what the Obama administration has put in place, such as the DOE loan guarantee program, creating the ability to progress a wider portfolio of projects in parallel.

Here is the link to the recent announcement by the US DOE regarding the conditional approval of a \$US1.4bn loan guarantee to help finance the BrightSource Energy Ivanpah project, a 400MW large scale solar thermal plant located in the Mojave desert:

<http://www.energy.gov/news/9675.htm>

Also, I have attached the recent press release announcing a further \$US150m of capital raised by BrightSource to help develop additional projects and assist with its overseas expansion into markets including Australia. A major component of these additional investment funds came from Alstom, a global provider of power systems and services, based in Europe, and further direct evidence of confidence in both the environment created in the US for renewable projects, along with confidence in the BrightSource management team and execution ability.

Other key investors in BrightSource include Chevron, Google and Vantage Point Venture Partners. Bechtel is the selected construction firm for Ivanpah and is an equity investor in that project. Further information on BrightSource can be found at [www.brightsourceenergy.com](http://www.brightsourceenergy.com)

Let me know if this topic and the offer to share US best practices with Australia could be worthy of discussion during the President's visit here and if we can provide more details to support the brief. The Australian Government has certainly indicated its strong desire to see projects of the scale of Ivanpah be developed here and BrightSource would be delighted to develop/support such projects in Australia if the right mechanisms are in place.

Look forward to catching up again at some stage soon. I will be in Canberra next on July 5-7th, but understand from Diane you will be in the US. Hopefully we will be able to find another time either in Canberra or Melbourne.

Best wishes to you both.

Andrew Dyer



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**From:** John Woolard  
**Sent:** Sunday, December 20, 2009 8:37 PM  
**To:** 'smcbee'; Joshua Bar-Lev  
**Subject:** Re: BrightSource

Sure - 3pm pacific works for me but could do earlier if it helps. Jw

----- Original Message -----

**From:** Steve McBee  
**To:** Joshua Bar-Lev; John Woolard  
**Sent:** Sun Dec 20 11:39:49 2009  
**Subject:** Re: BrightSource

Do u guys have time this aft for a quick call?

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**From:** Joshua Bar-Lev  
**To:** Steve McBee; John Woolard  
**Cc:** Angela Becker-Dippmann; Matt Brown; Gabe Horwitz; Jeff Markey  
**Sent:** Sun Dec 20 14:36:33 2009  
**Subject:** Re: BrightSource

Do all of you think we should have vantage point insist on a mtg with chu or silver or roddgers? Should john or I try to fly out for something similar? Looking for some game changer but perhaps we've done all we could. Is dc shut down by the snow or is there some impact we could make? Joshua

-----  
Sent using BlackBerry

----- Original Message -----

**From:** Steve McBee  
**To:** John Woolard; Joshua Bar-Lev  
**Cc:** Angela Becker-Dippmann; Matt Brown  
; Gabe Horwitz; Jeff Markey  
**Sent:** Sun Dec 20 09:07:45 2009  
**Subject:** FW: BrightSource

**From:** Steve McBee  
**Sent:** Sunday, December 20, 2009 12:07 PM  
**To:** Ward, Stephen (Bingaman); 'Simon, Bob (Energy)'; Carr, Michael (Energy)  
**Subject:** BrightSource

Guys, hope you're successfully digging out of the snow!

Wanted to let you know that the BrightSource application appears to be moving apace at OMB and has a fighting chance of getting over to DOE in time for consideration in front of the CRB (responsible for final approval) in time for their last meeting of the year on the 22nd.

DOE is another story. We are hearing that despite a strong push by Silver, Spinner, Rogers and others internally, the process is getting sideways by any number of bureaucratic hold ups and that there is now real potential for consideration of the project to slip until next year.

At this point, the end game gets entirely to the integrity of the LPG program. If the project slips, not only will the groundbreaking slip to 2011 but the strong likelihood is that the project (at this point the largest solar project in the world) will be redeployed to China as any further delay at this point will strand capital and long lead assets that have already been acquired based on an initial deadline by DOE for approval/non-approval by Labor Day. Not only will this be a huge blow to the US competitive position in this market vertical, but project collapse means the loss of the thousand-plus construction jobs associated with the project and compromises PGE and So Cal Edison from meeting their state-based RPS requirements.

ANYTHING you guys would be willing to do with DOE in terms of moving the process would be deeply appreciated. We believe the project stands on its own and are prepared to accept whatever decision the DOE makes. Key for us is getting a decision made so the company can move forward or move on.

I know you guys are super busy and that you don't have a stake in the outcome - but I know you have a huge stake in the integrity and reliability of the program processes. I think in that respect this project represents a threshold moment for the program given its visibility in Silicon Valley and the broader clean-tech industry.

Any inputs you'd be willing to provide tomorrow along these lines to the DOE would be hugely appreciated. Tuesday (the day of the CRB mtg) represents the end-game so tomorrow is the last chance for input. Will give you a holler tomorrow to discuss directly.

THANK YOU very much. You guys have been awesome over the past several weeks on this matter during what I know is a super busy time. Best, Steve

steve mcbee president

T [REDACTED] F [REDACTED]

Washington, DC 20004

[REDACTED]

[REDACTED] - [REDACTED]

WWW.MCBEESTRATEGIC.COM <<http://www.mcbeestrategic.com/>>

Email secured by Check Point

**From:** Roger McDaniel - [REDACTED]  
**Sent:** Tuesday, November 16, 2010 10:43 PM (GMT)  
**To:** 'jim McCrea' - [REDACTED]  
**Subject:** RE: RPS

---

As Jonathan requested, I'll draft something explaining the RPS issue.

Roger McDaniel  
Contractor  
United States Department of Energy  
[REDACTED]

-----Original Message-----

From: jim McCrea [REDACTED]  
Sent: Tuesday, November 16, 2010 5:38 PM  
To: 'Silver, Jonathan'; 'Winters, Matthew'; 'Barwell, Owen'  
Cc: 'Otness, Chris'; Roger McDaniel  
Subject: RE: RPS

Out of Credit Committee pre brief on Agua. Went well. RPS meeting tomorrow is fine. The pre-brief I was referring to is of S2 on Agua on Monday afternoon in advance of the currently scheduled Tues next week CRB.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]

-----Original Message-----

From: Silver, Jonathan [REDACTED] [mailto:[jsilver@hq.doe.gov](mailto:jsilver@hq.doe.gov)]  
Sent: Tuesday, November 16, 2010 5:22 PM  
To: [REDACTED]; Winters, Matthew; Barwell, Owen  
Cc: Otness, Chris  
Subject: Re: RPS

If pre brief is for agua, rps trumps, since without, its not fast track. Let me know and I'll have it rescheduled.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

----- Original Message -----

From: [REDACTED]  
To: Silver, Jonathan; Winters, Matthew; Barwell, Owen  
Cc: Otness, Chris

Sent: Tue Nov 16 16:34:30 2010  
Subject: Re: RPS

There was a pre-brief of S2 scheduled for next Mon afternoon. Will work to pull something together on RPS and to review the Aldy work.

Jim  
Sent via BlackBerry by AT&T

-----Original Message-----

From: "Silver, Jonathan" <[REDACTED]@hq.doc.gov>  
Date: Tue, 16 Nov 2010 16:20:16  
To: [REDACTED]; Winters, Matthew <[REDACTED]@Hq.Doc.Gov>; Barwell, Owen <[REDACTED]@hq.doc.gov>  
Cc: Otness, Chris <[REDACTED]@Hq.Doc.Gov>  
Subject: Re: RPS

I doubt the crb will take place next tuesday.  
Do not set a briefing.  
Let's do a text piece that explains the rps issue in more detail. To the extent we can cite one of the projects aldy used, so much the better.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

----- Original Message -----

From: jim McCrea <[REDACTED]>  
To: Silver, Jonathan; Winters, Matthew; Barwell, Owen  
Cc: Otness, Chris  
Sent: Tue Nov 16 15:51:24 2010  
Subject: RE: RPS

It is pretty simple. Agua Caliente is a good example. The total subsidy is 56% using 5% for RPS. If we deduct 5% and add 16% we are at 67% and do not meet the 65% fast track requirement. As to the merits of 16%, we have no clue of the value of the RPS and believe that it varies from state to state, project to project, etc. It is a huge time sink to try to develop such values. To date, the fast track process is consuming significant man hours and expense and is not yielding any benefit.

16% is a very large number that plays havoc against a standard like Treasury is imposing. Further, it presumes that the project and therefore, the developer is getting the benefit. In fact, the benefit of the RPS gets spread around and the developer, at best, keeps only a piece of it. The rest of the RPS benefit goes to the utility, the rate payers and other parties. I used to see the same question in leveraged leases where everyone seems to think that the leveraged lease equity get a ton of tax benefits. In fact, leveraged lease equity is competitively bid and the bulk of the tax benefits are transferred to the seller in the form of a lower implicit rate for the financing. Same thing happens with RPS.

On a related topic, I have heard nothing from Jud today and do not know whether we are on a fast track process or not for Agua Caliente. Kelly is asking that we set up a briefing but it is my understanding from the part of the WH meeting that I was in that fast track would not include any briefings. I do not want to set a briefing and in doing so inadvertently concede that this is not fast track. Hence, I am holding off on responding to OMB.

If we do not get confirmation that we are on a fast track process shortly, there will be no reason to expect a CRB to take place next Tuesday.

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC  
[REDACTED]

JM\_00152716

-----Original Message-----

From: Silver, Jonathan ([REDACTED]@hq.doe.gov)

Sent: Tuesday, November 16, 2010 3:26 PM

To: [REDACTED]; Winters, Matthew; Barwell, Owen

Cc: O'neiss, Chris

Subject:

We are going to need to analyze the 16% credit subsidy work that aldy did.  
Can you all pull some preliminary thoughts together and let's sit down tomorrow and pull together a plan of attack.

Jonathan Silver

Executive Director

Loan Programs

U.S. Department of Energy

[REDACTED]

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**From:** John Woolard  
**Sent:** Wednesday, March 09, 2011 5:09 AM  
**To:** Jack Jenkins-Stark; Joshua Bar-Lev; Natalie Schaefer; John Mulligan  
**Cc:** Arthur Haubenstock; Dan Judge  
**Subject:** Re: DOE UPDATE

Fully agree - ceremony too soon has more downside than upside. Seems like we have good momentum. JW

---

**From:** Jack Jenkins-Stark  
**To:** Joshua Bar-Lev; Natalie Schaefer; John Mulligan  
**Cc:** Arthur Haubenstock; John Woolard; Dan Judge  
**Sent:** Tue Mar 08 19:52:02 2011  
**Subject:** RE: DOE UPDATE

While I agree that a ceremony can help drive things forward, I think such a ceremony next week is premature. I think we can get the same impact by starting the planning now and working with the DOE next week to drive a ceremony either the last week of March or the first week of April. This insures things are done and doesn't expose us for not being able to deliver equity on time (much less the debt) and also keeps the distraction factor down for all participants. I also think that a ceremony next week is patently political and that a ceremony after the CR is extended will play better for all constituents. I know that these arguments can be flipped in the other direction, but all in all, would strongly suggest we not do it next week and instead target the last week of March, but with planning to start next week.

---

**From:** Joshua Bar-Lev  
**Sent:** Tuesday, March 08, 2011 3:39 PM  
**To:** Natalie Schaefer; 'Gabe Horwitz'; John Mulligan  
**Cc:** Jack Jenkins-Stark; Arthur Haubenstock; John Woolard; Dan Judge; 'Umanoff, Adam'; 'Bernie Toon'  
**Subject:** RE: DOE UPDATE

The third week of March is a recess week; politically its better to do it next week and take a victory lap even BEFORE the cps are satisfied. If its so pro forma to get the cps done the following week, and if deal team seems to be willing to close before all cps (which is what I thought you had said earlier), then why not let a signing ceremony of some kind "drive" this home so it becomes inevitable.

---

**From:** Natalie Schaefer  
**Sent:** Tuesday, March 08, 2011 3:30 PM  
**To:** Gabe Horwitz; Joshua Bar-Lev; John Mulligan  
**Cc:** Jack Jenkins-Stark; Arthur Haubenstock; John Woolard; Dan Judge; Umanoff, Adam; Bernie Toon  
**Subject:** RE: DOE UPDATE

Personally I don't think you want to have a signing ceremony until everything is said and done...we don't even know if we will sign next week at this point yet or not- all depends on what is happening with the government issues, sign, close AND initiate funding when ALL CP's are met by the end of March... [3<sup>rd</sup> week ☺]

Note - I have another concern I just discussed with Orrick (our equity counsel):

NRG met with Silver last week and was told by him: DOE will be ready by the 17<sup>th</sup>/18<sup>th</sup>, but its "OK" if equity is not, we don't need to fund until you are ready..... with a separate message to Tom Doyle from John (or Jack??) that said - we MUST CLOSE by the 18<sup>th</sup>...this is this mis-messaging that people get confused about and I find myself having to explain away the differences and sensitivities here to timing and what issues impact the various dates (running out of money vs. govt shut down and loss of appropriations)

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**From:** Gabe Horwitz [REDACTED]  
**Sent:** Tuesday, March 08, 2011 3:19 PM  
**To:** Joshua Bar-Lev; John Mulligan; Natalie Schaefer  
**Cc:** Jack Jenkins-Stark; Arthur Haubenstock; John Woolard; Dan Judge; Umanoff, Adam; Bernie Toon  
**Subject:** RE: DOE UPDATE

Yes – it can be organized and having JW suggest it is a perfect avenue. Key is whether DOE wants a big splash to tamp down the downward pressure as a result of the IG report and solyndra or if they want to just churn these out with much less fanfare. However, we should definitely lean into the option.

John can further reference the Hill meetings/conversations we have been having and note to Silver that there is interest from senior leaders on the Hill to take a victory lap along with the WH on this and have a collective talking point for both Obama and the entire Administration to use in the midst of unrest in Libya and need for further demonstration of domestic power.

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**From:** Joshua Bar-Lev [REDACTED]  
**Sent:** Tuesday, March 08, 2011 6:15 PM  
**To:** John Mulligan; Natalie Schaefer  
**Cc:** Jack Jenkins-Stark; Arthur Haubenstock; John Woolard; Dan Judge; Gabe Horwitz; Umanoff, Adam; Bernie Toon  
**Subject:** RE: DOE UPDATE

What about the "signing ceremony" that we've been discussing. May help drive this to close. Is it feasible to have some form of signing ceremony even if cp satisfied in the weeks after? Could that be organized? Would it be appropriate for JW to call Silver to suggest it? Joshua

---

**From:** John Mulligan  
**Sent:** Tuesday, March 08, 2011 3:02 PM  
**To:** Natalie Schaefer  
**Cc:** Joshua Bar-Lev; Jack Jenkins-Stark; Arthur Haubenstock; John Woolard; Dan Judge; Gabe Horwitz; Umanoff, Adam; Bernie Toon  
**Subject:** Re: DOE UPDATE

The quick response to your second Q is that there is some momentum around another short term cr getting done late next week. If that happens, it would likely be another ~2wks and a bridge to longer deal. Things still Quite fluid and well have a better sense as this week progresses. Will obviously monitor closely and keep this group updated.

Jpm

Sent from my iPhone

On Mar 8, 2011, at 5:46 PM, "Natalie Schaefer" [REDACTED] wrote:

In my mind – Deal team does not need to be there... we are on track to wrap up DOE Financing next week as I describe below= with 3<sup>rd</sup> party cps and deliverables outside of our control to come. Whether or not you have meetings next week is independent of the work to close – I think the only reason for a meeting is if we are finding them stalled in OMB or signing off on litigation –that is my 2 cents



My last point is one that has to do with getting guidance from you on the status of the CR and budget discussions to make certain decisions on signing the loan guarantee and paying facility fees in advance of a full closing (and subsequent funding)

May be best to convene on a call at some point - I don't think today

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**From:** Joshua Bar-Lev  
**Sent:** Tuesday, March 08, 2011 2:38 PM  
**To:** Natalie Schaefer; Jack Jenkins-Stark; Arthur Haubenstock; John Woolard; John Mulligan; Dan Judge; 'Gabe Horwitz'  
**Cc:** 'Umanoff, Adam'; Bernie Toon  
**Subject:** RE: DOE UPDATE

Nat, nice news, but I'm not sure I understand your last sentence below in caps. Can you pls explain.

We just had a political meeting and concluded that it is prudent for JW and possibly others to be in DC next Tuesday. We are working on mtgs with our key senators, and with the VP and WH offices, and of course with Jonathan Silver, and possibly others. The goal of these meetings is to either say 1) not done yet, what is holding us up and we need your help to bring this home 2) it looks good, cannot thank you enough or 3) a variation. I don't think we can afford NOT to have this meeting scheduled. Questions – should deal team plan to be there and park there until finished? Should JJS also plan to be there? Who else should be there? Should JW call Silver and say "I will be there next Tuesday and we're going to get this closed". Other ideas?

Is this like the Stanley Cup finals, seventh game, overtime, or what? Joshua

---

**From:** Natalie Schaefer  
**Sent:** Tuesday, March 08, 2011 1:46 PM  
**To:** Jack Jenkins-Stark; Arthur Haubenstock; Joshua Bar-Lev; John Woolard; John Mulligan; Dan Judge; 'Gabe Horwitz'  
**Cc:** Umanoff, Adam  
**Subject:** DOE UPDATE

Just got off a series of calls with DOE: Key Takeaways are POSITIVE:

Meeting in DC:

They are working to get a meeting set up tomorrow afternoon with Key people at DOE (Silver, Cestari, Schultz, Ken's boss, others) to listen to our messages on litigation with PC. They think this will be helpful (DUH!)

#### Litigation Memo and Update

The PC memo update we prepared and sent was helpful. THE MESSAGES THEY ARE NOW SENDING ARE POSITIVE. THEY ARE GIVING US EVERY INDICATION THAT WITH THIS ADDITIONAL INFORMATION WE HAVE PROVIDED, THE MEETING, THEIR OWN ANALYSES, THEY ARE GETTING MORE AND MORE COMFORTABLE. MY SENSE IS WE ARE HEADED TO THEM GETTING THERE BY ENXT WEEK TO DEEM WE HAVE SATISFIED OUR CP TO CLOSING ON LITIGATION. NOT CONFIRMED, BUT IT IS THE SENSE I AM GETTING OF WHERE WE ARE HEADED.

Presentation: Got their attention. They are moving, acting.

TIMING: We are continuing to work towards a 3/15 DOE Financing docs closure date, with moving to closing loan funding or having as many cp's met as possible by 3/18, fully recognizing that many 3<sup>rd</sup> party agreements, consents may still be trickling in the following week or so, as well as final agreements, certificates etc. We may find ourselves in a dilemma next week with wanting to close because of the CR issues and budget issues with the government, pay the facility fee, but not fund (until we are ready on all fronts), IF WE ARE 1) CERTAIN WE HAVE NO MORE RISKS/ISSUES ON LITIGATION HOLDING UP FUNDING AND 2) WE ARE WORRIED ABOUT WHAT IS HAPPENDING WITH THE GOVT AND LOSS OF FUNDS. I need to rely on all of your gov't wizzes on this one to make a fair assessment later this week. DOE also needs to assess if this is even possible from an inter-agency perspective

In any event – that is the quick update...much to do and I need to run, but happy to discuss later.  
Adam– Anything to add?

thanks

---

**From:** Natalie Schaefer  
**Sent:** Thursday, January 07, 2010 3:58 AM  
**To:** John Woolard; Jack Jenkins-Stark; Dan Judge; Israel Kroizer; 'smcbee [REDACTED]'; Joshua Bar-Lev  
**Subject:** RE: Key points for Silver meeting

See below from Jack and I IN CAPS (WE ARE IN A CAR TOGETHER)

-----Original Message-----

**From:** John Woolard  
**Sent:** Wednesday, January 06, 2010 4:39 PM  
**To:** Jack Jenkins-Stark; Dan Judge; Israel Kroizer; 'smcbee [REDACTED]'; Joshua Bar-Lev; Natalie Schaefer  
**Subject:** Key points for Silver meeting

Please add your comments:

**GENERAL NOTE: YOU WILL SEE COMING SHORTLY IN AN EMAIL FROM JACK A LONG LIST OF DELIVERABLES AND ACTION ITEMS (INCLUDING A PARSONS REVIEW OF THE NEW PROJECT STRUCTURE) THAT WE CONFIRMED WE MUST PROVIDE WITH DOE TODAY. THIS WILL AFFECT TIMING OBVIOUSLY FOR A CRB MEETING. NOTE THAT WE MUST GO BACK THROUGH CREDIT COMMITTEE. STILL NEEDS TO RUN THROUGH OMB AS WELL. YOU MAY ALSO WANT TO REMIND JONATHAN SILVER THAT HE MISSED THE WHOLE DISCUSSION ON PHASING AND "COME TO JESUS" MOMENTS THAT KELLY AND JIM EXPRESSED (POLICY FOLKS)**

**NOTE ALSO THAT WE CONFIRMED WITH KEN AND DOUG AND RICK JENNEY THAT NO ONE SEES THE NEED FOR ANY MATERIAL CHANGES TO TS (MAYBE JUST A FEW CLEAN UP ITEMS - BUT NO DEAL POINTS) GIVEN WHAT WE HAVE DISCUSSED OVER LAST 2 DAYS.**

Clarity of process - what are the next steps? We propose:  
Meet next week to resolve all outstanding issues. **DOUG CONFIRMED MEETING FOR WEDS AND THURSDAY OF NEXT WEEK. AUDIENCE AND AGENDA TO BE CONFIRMED BASED ON NEXT FEW DAYS OF GETTING THEM INFORMATION THEY REQUESTED. MIGHT WANT TO TELL JONATHAN (I AM GOING TO DO THE SAME TO DOUG) THAT THIS IS A PERFECT OPPORTUNITY FOR ANY ONE ELSE WITH CONCERNS TO COME AND JOIN THE MEETING**

When do you go to CRB?  
What else is needed for complete package? **SEE NOTE ABOVE. ASK - SCHEDULE CRB MEETING NO LATER THAN JANUARY 28. CREDIT COMMITTEE SCHEDULED BY JANUARY X....COMMIT TO DEDICATE ALL RESOURCES NECESSARY TO GET THIS DONE IN JANUARY. THEY CANT KEEP SPINNING WHEELS. SOMEONE NEEDS TO DRIVE THE PROCESS WITH ENOUGH POLITICAL POWER WITHIN DOE.**

Who is on the CRB? What are their key issues? Can we schedule a meeting to talk to them **(OR THEIR SECONDS)** directly if they have issues?

What are the big risks? Have we resolved major issues? Who else should we brief face to face?

**REMINJONATHAN WHAT WE TOLD DOUG TODAY: CANNOT CLOSE SERIES D UNTIL CONDITIONAL COMMITMENT IS RECEIVED AND OUR FUNDS SITTING IN ESCROW WILL EXPIRE JANUARY 29.**

Why get this done:

BSE has many large equity investors who have followed this process since July, signed a binding termsheet to invest in december, and the only CP is the DOE lgp termsheet. If not resolved, US projects that were negotiated in good faith based on DOE representations are unfinanceable, company will immediately move all efforts overseas and US solar thermal market is effectively dead. **OTHER MESSAGES: JACK BELIEVES THE RISK CONCERN RESIDES AT THE MOST SENIOR LEVELS (CRB MEMBERS). DONG, DEAL TEAM, JIM MCCREA ARE NOT RAISING ISSUES, THEY ARE TRYING TO BUILD A CASE TO SUPPORT AND COUNTER THE CRB MEMBERS CONCERNS.**

**JOHN – WE SHOULD PLAN TO GET ON A CALL AFTER YOUR MEETING TO DISCUSS NEXT STEPS AND PERHAPS TAKING ADVANTAGE OF YOUR BEING IN DC TO MEET WITH SOMEONE ON HILL?**

---

**From:** John Woolard  
**Sent:** Tuesday, August 24, 2010 12:51 AM  
**To:** Kris Courtney  
**Subject:** RE: Please schedule the following calls:

-----Original Message-----

**From:** Kris Courtney  
**Sent:** Monday, August 23, 2010 11:00 AM  
**To:** John Woolard  
**Subject:** RE: Please schedule the following calls:

Strategic partnerships? Is there any subject matter I can offer up?

-----Original Message-----

**From:** John Woolard  
**Sent:** Saturday, August 21, 2010 11:30 AM  
**To:** Kris Courtney  
**Subject:** Please schedule the following calls:

Jim Rogers - Duke - Duke - Brightsource relationship - Ivanpah Investment Jonathan Silver - Ivanpah Update and DOE issues Mike Brune - Sierra Club - I left message Bill Ritter - less urgent, can be further out...- Brightsource visit to Israel - follow up on conversation from Sundance/VPVP

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**From:** John Woolard  
**Sent:** Sunday, May 16, 2010 1:54 PM  
**To:** 'jonathan.silver' [REDACTED]  
**Subject:** Re: Mountain biking

Great ride - glad to do again tomorrow....see you at your panel. JW

----- Original Message -----

**From:** Silver, Jonathan <[Jonathan.Silver](mailto:Jonathan.Silver)> [REDACTED]  
**To:** John Woolard  
**Sent:** Sun May 16 05:51:13 2010  
**Subject:** Re: Mountain biking

Sorry, just saw this. Would have loved to and have my stuff, but didn't know what the plan was and am on a panel this am.  
Tomorrow am?

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[Jonathan.Silver](mailto:Jonathan.Silver) [REDACTED]

---

**From:** John Woolard [REDACTED]  
**To:** Silver, Jonathan  
**Sent:** Sun May 16 08:11:52 2010  
**Subject:** Mountain biking

Are you biking this am? Bike is ready and tires are pumped....

---

**From:** Arthur Haubenstock  
**Sent:** Monday, March 21, 2011 9:45 PM  
**To:** Black, Steve; Scott, Janea  
**Subject:** Update and new issue  
**Attachments:** 031511-FWLAcknowledge\_Request.PDF

Steve and Janea- first, many thanks for your assistance in supporting the DOE Loan Guarantee process. I understand that the DOE has come to a positive resolution on the issues that had been outstanding, and your help, along with Jack's, no doubt contributed to that result. Unfortunately, another issue has arisen due to FWS's issuance of the attached letter, which injects a new uncertainty- more minor than those we had been dealing with, but still something that must be addressed. Jim Abbot is seeking to coordinate with FWS in California, but I would like to talk with you when you have a moment about the apparent disconnect between BLM and FWS. Thanks, as always-  
Arthur

---

**From:** John Woolard  
**Sent:** Tuesday, December 08, 2009 8:56 PM  
**To:** Kris Courtney  
**Subject:** FW: Jonathan silver

Please update J silver contact info below -

-----Original Message-----

**From:** Joshua Bar-Lev  
**Sent:** Tuesday, December 08, 2009 7:18 AM  
**To:** John Woolard; 'smcbee [REDACTED]'; 'abeckerdippmann [REDACTED]';  
**Subject:** Re: Jonathan silver

I said we needed an appt today while you are in town. I think you should call asap and demand a mtg. Unless others disagree. I was very explicit about needing to get this out this week. His # is [REDACTED] Fax is [REDACTED]. Email is [jonathan.silver@\[REDACTED\]](mailto:jonathan.silver@[REDACTED])

-----  
Sent using BlackBerry

----- Original Message -----

**From:** John Woolard  
**To:** Joshua Bar-Lev; 'smcbee [REDACTED]'; 'abeckerdippmann [REDACTED]';  
**Sent:** Tue Dec 08 07:11:52 2009  
**Subject:** RE: Jonathan silver

I can come to where you are if he is there all day and we can grab 15-20 min in the hallway - that's really all we need. Otherwise, if he has left, I can place a call with his office again and try to schedule a meeting this afternoon. JW

----- Original Message -----

**From:** Joshua Bar-Lev  
**Sent:** Tuesday, December 08, 2009 6:16 AM  
**To:** 'smcbee [REDACTED]'; 'abeckerdippmann [REDACTED]'; John Woolard  
**Subject:** Jonathan silver

Grabbed him here at seia and told him situation and need for extreme expedition. He was unaware, to put it bluntly. He will "look into it right away" and get back to me. I asked for mtg today with all of us.

Shocking to say the least, that this not (apparently) on his radar screen. Joshua

-----  
Sent using BlackBerry



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**From:** Wilkins, Frank [REDACTED]  
**Sent:** Thursday, July 28, 2011 6:34 PM  
**To:** John Woolard  
**Cc:** Udi Hellman  
**Subject:** Re: Tex Wilkins Retiring from DOE

John

I would like to thank you for your support of CSP at DOE. Your meeting with Secretary Chu convinced him to include CSP in his SunShot initiative. CSP would be in much worse position relative to budget negotiations had we not been included in SunShot.

We just had a meeting at SMUD to discuss an analysis being done by Paul Denholm, NREL, the goal of which is to determine the value of thermal storage. Included in the discussion were CAISO, CPUC, CEC, utilities (PGE, SCE, SMUD, SDGE, APS), and CEERT. Udi Hellman represented the CSP industry and I want to thank you for enabling him to take on that role.

Udi can fill you in on the details of the meeting, but the main outcome was that the CPUC and utilities are anxious for the results of the analysis. They are aware that storage offers benefits, but at present they have no way of quantifying it. They agree that LCOE is an insufficient metric when evaluating solar projects. I agree. We need to give them the better metric.

I view this as a very important study and hope that it will be supported by the CSP industry. I hope Udi will be able to keep the industry informed of the study's progress.

Thanks and good luck in getting Ivanpah built.

Tex

Sent from Blackberry

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**From:** John Woolard [REDACTED]  
**Sent:** Tuesday, July 26, 2011 03:26 PM  
**To:** Wilkins, Frank  
**Cc:** tex.wilkins [REDACTED], [REDACTED]  
**Subject:** RE: Tex Wilkins Retiring from DOE

Sorry to hear you are leaving, but it must be a relief to let go of that Blackberry – it was a pleasure to work with you at DOE – hope you can find some time to visit Ivanpah on your travels. Best, John

---

**From:** Wilkins, Frank [REDACTED]  
**Sent:** Monday, July 25, 2011 1:39 PM  
**Cc:** 'tex.wilkins [REDACTED]  
**Subject:** Tex Wilkins Retiring from DOE

I am leaving DOE after 32 years, nearly all of which was working on solar energy.

I became interested in solar energy while in high school, so getting the job at DOE was a great opportunity. Being able to spend 32 years at it is a dream that came true.

There is part of the job, however, that was not in the dream. I will not miss the grind of budget development/defense, the three hour daily commute, or being plugged into a Blackberry 16 hrs a day. On the other hand I've enjoyed working on the technology and helping guide it through the ups and downs of public policy. I've enjoyed, and will miss most of all, working with people here at DOE, at other agencies, our National Labs, and industry. Many of those, as do I, look at renewable energy as important to the Nation's future and view the work more as a mission than a job. It's been challenging, rewarding, and fun (even with the ups and downs).

I am grateful for having had the opportunity to work with each of you. I hope to find a way of staying connected to concentrating solar power, so our paths may cross again. After July 29 you will be able to reach me at [Tex.Wilkins](mailto:Tex.Wilkins) [REDACTED]

Tex

**From:** James C McCrea [REDACTED]  
**Sent:** Monday, July 12, 2010 4:07 PM (GMT)  
**To:** 'Don Bennett' [REDACTED]  
**Subject:** Barons Article

---

Well, that was a lousy article. The Solyndra going concern opinion is not viewed as a big deal nor was it unanticipated. I don't know much about Solyndra but I do know Abound and their discussion about a nephew was a cheap shot. It was also news to me! As far as I am concerned, that transaction passed on its merits as the best structured solar transaction (far better than Solyndra) and if we were going to do anything in solar manufacturing, it had to be that transaction. Don't pass that one and the proper response would have been to reject all solar manufacturing transactions.

Jim

---

James C. McCrea  
**JAMES McCREA & ASSOCIATES LLC**

[REDACTED]  
Wilton, CT 06897

Phone: [REDACTED]

Fax: [REDACTED]

jimmccrea [REDACTED]

From: James C McCrea [REDACTED]  
Sent: Monday, July 12, 2010 3:42 PM (GMT)  
To: Brian Oakley [REDACTED]  
Subject: Solyndra article

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From Barons. Ugly!

## D.C. CURRENT

| SATURDAY, JULY 10, 2010

# Our Tough-Luck President

By JIM MCTAGUE | [MORE ARTICLES BY AUTHOR\(S\)](#)

*Solyndra, a key to White House's green-energy policy, pulls public offering due to an auditor's fear that it might not remain a going concern.*

WHAT ROTTEN LUCK! IF THE Oval Office were a ship, the crew would be forgiven for suspecting that a Jonah was on board. Look at a partial list of calamities thus far in the USS Obama's voyage: The Chicago "not" Olympics; gate-crashers Michaele and Tareq Salahi; the \$787 billion economic "where's the stimulus" package; the \$30 billion-and-counting BP oil spill; four-star General "Loose Lips" Stanley McChrystal; Solyndra...

You've never heard of Solyndra? That's strange, because it was supposed to be the cornerstone of Obama's vaunted green-energy future, but now is a king-size political embarrassment. Solyndra, recipient of a \$535 million Department of Energy loan guarantee, last month cancelled a \$300 million initial public offering because auditor PricewaterhouseCooper said its operating losses and negative cash flow raise doubts about its ability to continue as a going concern. Ouch!

It gets worse for Obama. When he toured Solyndra's Fremont, Calif., factory in May, he gushed that the company was "leading the way toward a brighter and more prosperous future."

MORE EMBARRASSING, SOLYNDRA was the first recipient of a loan guarantee under the dual auspices of the Recovery Act and Title XVII of the Energy Policy Act of 2005. The Department of Energy noted the loan guarantee was the first it had issued since the 1980s. On Sept. 4, 2009, the day of the award, Vice President Joe Biden crowed that it was "part of the unprecedented investment this Administration is making in renewable energy, and exactly what the Recovery Act is all about." DOE Secretary Steven Chu called it "part of a broad, aggressive effort to spark a new industrial revolution that will put Americans to work, end our dependence on foreign oil and cut carbon pollution."

To borrow the words that Biden used on another auspicious occasion, it was a big &#\*\*%! deal.

Taxpayers are on the hook for \$390.5 million—73% of the loans. Some observers questioned the wisdom of the government's deal from the start, saying the company was an inefficient, high-cost producer.

Chu announced the Solyndra guarantee within 60 days of taking over the DOE, which in hindsight seems rather rash. DOE spokesman Stephanie Mueller said a credit-review board run by DOE Deputy Secretary Daniel Poneman recommended it. The panel includes the department's deputy secretary of energy; undersecretary of energy; undersecretary for science; chief financial officer; general counsel; senior advisor to the secretary for the Recovery Act, plus Chu's chief of staff. They now must decide whether Solyndra will get an additional government-guaranteed loan of \$469 million to partially fund the second phase of its factory expansion.

Solyndra raised \$175 million in new debt from existing investors after withdrawing its IPO. But if Solyndra fails to get the new loan guarantee, it will have a difficult time finishing the second phase, in which case "...we may not be able to grow our business, realize the benefits of economies of scale or satisfy our customer requirements," it says in an Securities and Exchange Commission filing. Solyndra spokesman David Miller was considerably more optimistic in an e-mail Thursday, claiming, "Solyndra's viability is not in question" and that "the \$175 million provides ample liquidity to cover near-term cash needs; and over the long run we expect to seek additional capital through other financings, which may include an IPO."

One of Solyndra's biggest stakeholders is Argonaut Ventures I. Its majority owner is Oklahoma oil billionaire George Kaiser, who was a "bundler" of campaign funds for the Obama-Biden campaign. This means he collected contributions and sent them en masse to the candidates. Kaiser e-mailed us an emphatic "NO" when we asked if he played any role in the pursuit of the loan guarantees.

In November, Chu appointed venture capitalist Jonathan Silver to oversee the DOE's loan guarantee program and its Advanced Technology Vehicles Manufacturing Loan Program. Silver had been a managing partner at Core Capital Partners in Washington. Coincidentally, one of his colleagues there was Tom Wheeler, another Obama-Biden fund bundler. Silver is supposed to help Chu accelerate loan reviews. According to a November press release, "Silver will be responsible for staffing the programs, and leading origination, analysis, and negotiation, as well as managing the full range of the Department's alternative energy investments." The DOE said Silver was unavailable for comment.

WILL THE EXTRA LAYER OF bureaucracy help Chu protect taxpayers? Well, this month, the DOE awarded loan guarantees to Abengoa Solar, part of Abengoa, a Spanish outfit whose U.S. shares (ticker: ABGOY) trade in the pink sheets, and Abound, a Colorado-based photovoltaic-film maker.

Abengoa Solar got \$1.45 billion in guarantees to build plants in California and Arizona. Its profits depend heavily on subsidies from the government of economically troubled Spain.

Abound Solar received a \$400 million grant to ramp up production of cadmium telluride photovoltaic panels. Here's a coincidence: Russ Kanjorski, nephew of Pennsylvania Democratic Rep. Paul Kanjorski, is a marketing executive at Abound, which got a \$3 million federal grant in 2008. He previously had been a principal of Cornerstone Technologies, which got \$9.2 million in earmarks from Kanjorski and then went bankrupt. A spokesman for Abound says Russ Kanjorski had no role in the loan-guarantee negotiations.

Let's hope for the sake of American taxpayers that Obama's rotten luck changes soon.

Jim

---

James C. McCrea  
**JAMES McCREA & ASSOCIATES LLC**

Wilton, CT 06897

Phone: [REDACTED]

Fax: [REDACTED]

jimmccrea [REDACTED]

**From:** McCrea, Jim (CONTR) <Jim.McCrea [REDACTED]>  
**Sent:** Wednesday, March 7, 2012 12:58 PM (GMT)  
**To:** jimccrea [REDACTED]  
**Subject:** FW: Cash Flow Chronology  
**Attach:** Abound Solar - Cash Flow Chronology 030612c.pptx

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From: Frantz, David  
Sent: Wednesday, March 07, 2012 7:58:15 AM  
To: McCrea, Jim (CONTR)  
Subject: FW: Cash Flow Chronology  
Auto forwarded by a Rule

David G. Frantz  
US Department of Energy  
Director, Loan Programs Office  
Office: [REDACTED] Fax: [REDACTED]  
David.Frantz [REDACTED]

-----Original Message-----

From: Nwachuku, Frances  
Sent: Tuesday, March 06, 2012 4:17 PM  
To: Kauffman, Richard; Richardson, Susan; Kim, Dong; Wright, Morgan; Frantz, David; Hurlbut, Brandon  
Subject: FW: Cash Flow Chronology

FYI.

Frances

Frances I. Nwachuku  
Director,  
Portfolio Management Division  
Loan Programs Office  
US Department of Energy  
1000 Independence Avenue SW  
Washington, DC 20585

Direct: [REDACTED]  
Mobile: [REDACTED]  
Fax: [REDACTED]

-----Original Message-----

From: Janik, Katherine (Katie)  
Sent: Tuesday, March 06, 2012 3:08 PM  
To: Barwell, Owen  
Cc: Nwachuku, Frances; Flamenbaum, Michael (CONTR); 'rsass' [REDACTED]  
Subject: Cash Flow Chronology

Hi Owen -

Per the discussions at Risk Committee yesterday, please find attached a slide presentation with the information requested (or as we interpreted the request).

Please let us know if you would like to discuss.

Kind Regards,  
Katie

JM\_00533855

Katie Janik  
Senior Portfolio Manager  
Portfolio Management Division  
Loan Guarantee Program  
U.S. Department of Energy  
katherine.janik [REDACTED]  
office: [REDACTED]  
mobile: [REDACTED]

**From:** jim McCrea <[REDACTED]>  
**Sent:** Thursday, February 3, 2011 1:24 AM (GMT)  
**To:** 'Winters, Matthew' <[REDACTED]>@Hq.Doe.Gov>  
**Subject:** RE: Quantity vs. Quality

---

Gather there is some sort of fire drill about how we are all about quantity and not quality and that POTUS has had to be saved from us by the other agencies. Coming up in a meeting between S1 and POTUS tomorrow.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

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**From:** Winters, Matthew [mailto:[REDACTED]@Hq.Doe.Gov]  
**Sent:** Wednesday, February 02, 2011 8:11 PM  
**To:** [REDACTED]  
**Subject:** Re: Quantity vs. Quality

I'm actually not sure what you're referring to.

---

**From:** jim McCrea <[REDACTED]>  
**To:** Winters, Matthew  
**Sent:** Wed Feb 02 20:05:17 2011  
**Subject:** Quantity vs. Quality

Presume that you are in the midst of that exercise. I am working chained to my desk this evening. If you need anything don't hesitate to call.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]



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**From:** Joshua Bar-Lev  
**Sent:** Monday, March 14, 2011 9:19 PM  
**To:** John Woolard; Arthur Haubenstock  
**Cc:** Kris Courtney  
**Subject:** RE: what about a letter from Darbee?

Ok; I'll start draft letter that you would send to him as "model" after you talk to him.

---

**From:** John Woolard  
**Sent:** Monday, March 14, 2011 12:44 PM  
**To:** Joshua Bar-Lev; Arthur Haubenstock  
**Cc:** Kris Courtney  
**Subject:** RE: what about a letter from Darbee?

We have asked them for a ton, and I think we should hold him in reserve – but what I might want to do is use this as an excuse to approach Ron Litzinger, the new CEO at SCE, to ask him to write a letter. It actually helps us elevate the relationship and educate him on Ivanpah – which is good for us. If you agree, lets start drafting and while I am on plane please have Kris schedule a brief 10-15 min call with him tomorrow. JW

---

**From:** Joshua Bar-Lev  
**Sent:** Monday, March 14, 2011 11:36 AM  
**To:** John Woolard; Arthur Haubenstock  
**Subject:** what about a letter from Darbee?

Would be easy to adapt what we already have. But you would need to call him first. Joshua

**From:** James C McCrea <[REDACTED]>  
**Sent:** Monday, December 14, 2009 12:18 AM (GMT)  
**To:** 'Colyar, Kelly' <[REDACTED]>; 'boakley [REDACTED]>  
**Subject:** RE: BrightSource

---

OK. Understood. Just needed to be clear. Hear rumblings on the other side that everything is back to where it was three months ago before Credit Policy held everything up. That gives you a sense of the potential for mixed messages!!!!

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]  
Wilton, CT 06897

Phone: [REDACTED]

Fax: [REDACTED]

jimmccrea [REDACTED]

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**From:** Colyar, Kelly [REDACTED]  
**Sent:** Sunday, December 13, 2009 7:12 PM  
**To:** jimmccrea [REDACTED]; boakley [REDACTED]  
**Subject:** Re: BrightSource

He can't set the script here...our job to deliver the objective message.

----- Original Message -----

From: James C McCrea [REDACTED]  
To: Colyar, Kelly; boakley [REDACTED]; boakley [REDACTED]  
Sent: Sun Dec 13 19:09:07 2009  
Subject: RE: BrightSource

Agreed and I want to be sure that I understand exactly the message that both you and Jonathan want delivered. This one is pretty delicate given how we got to where we are. Perhaps, you might suggest to Jonathan that he be clear on the message so that everyone is working off the same script.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]  
Wilton, CT 06897

Phone: [REDACTED]

Fax: [REDACTED]

jimmccrea [REDACTED]

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**From:** Colyar, Kelly [REDACTED]  
**Sent:** Sunday, December 13, 2009 7:04 PM  
**To:** jimmccrea [REDACTED]; boakley [REDACTED]  
**Subject:** Re: BrightSource

Yes--I'm pretty sure he means an all out rush to brief every possible stakeholder before the big day. We'll need to make sure someone accompany Doug or the message won't be accurate.

----- Original Message -----

From: James C McCrea [REDACTED]

To: Colyar, Kelly; boakley [REDACTED]; [REDACTED]  
Sent: Sun Dec 13 18:51:34 2009  
Subject: RE: BrightSource

At some point, before that occurs, you, Brian and I should chat to make sure that Brian and I have clear direction from you as to how you want to approach this transaction in light of its twists and turns.

Any sense about what he means by using the same sort of approach as Vogtle?

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]  
Wilton, CT 06897  
Phone: [REDACTED]  
Fax: [REDACTED]  
jimmccre@ [REDACTED]

From: Colyar, Kelly [REDACTED]  
Sent: Sunday, December 13, 2009 6:49 PM  
To: boakley [REDACTED]; jimmccre@ [REDACTED]  
Subject: Fw: BrightSource

----- Original Message -----

From: Silver, Jonathan  
To: Schultz, Douglas; Frantz, David; Colyar, Kelly  
Sent: Sun Dec 13 18:42:56 2009  
Subject: Re: BrightSource

Great. Let's all hook up tomorrow to plan the same sort of approach we used with vogtle.  
J

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

Jonathan Silver [REDACTED]

----- Original Message -----

From: Schultz, Douglas  
To: Silver, Jonathan; Frantz, David; Colyar, Kelly  
Sent: Sun Dec 13 18:05:59 2009  
Subject: Re: BrightSource

Kelly, schedule sounds good and in terms of getting things out we should be good.

CC books are printed and was planning to distribute on monday morning.

Term sheet and paper went to preston at treasury last friday morning.

Thanks

Doug

----- Original Message -----

From: Silver, Jonathan  
To: Frantz, David; Colyar, Kelly  
Cc: Schultz, Douglas  
Sent: Sun Dec 13 12:28:01 2009

Subject: Re: BrightSource

This simply needs to get done.

Jonathan Silver  
Executive Director  
Loan Programs  
U. S. Department of Energy

Jonathan.Silver [REDACTED]

----- Original Message -----

From: Frantz, David  
To: Colyar, Kelly; Silver, Jonathan  
Cc: Schultz, Douglas  
Sent: Sun Dec 13 10:00:50 2009  
Subject: Re: BrightSource

Doubt monday will work as we are pressed to get the MEAG BOOKS out. This is the priority!

----- Original Message -----

From: Colyar, Kelly  
To: Silver, Jonathan  
Cc: Frantz, David; Schultz, Douglas  
Sent: Sun Dec 13 09:47:20 2009  
Subject: BrightSource

Given where we are on Vogtle and the competing demands for time with various stakeholders, I suggest the following schedule on BrightSource:

1. CC books distributed NLT COB Monday.
2. Term sheet and credit paper emailed to Preston Atkins (Treasury) NLT COB Monday
3. Credit Committee Friday.
4. Trusted Seconds Friday.
5. OMB Friday/Monday. I've teed it up, but don't want to lose their focus on Vogtle until that's finished.
6. CRB Dec. 22

**From:** Silver, Jonathan <Jonathan.Silver [REDACTED]>  
**Sent:** Thursday, February 4, 2010 11:23 PM (GMT)  
**To:** Westerheim, Ove < [REDACTED]>  
**Cc:** Frantz, David < [REDACTED]>; Seward, Luchlan  
< [REDACTED]>; James C McCrear < [REDACTED]>;  
Richardson, Susan < [REDACTED]>; Corrigan, Richard  
< [REDACTED]>; Kim, Dong < [REDACTED]>  
**Subject:** RE: Quarterly Compliance Certificates

---

This is a good beginning and I look forward to our kick-off discussion next week, but, as a frame of reference, these deals can blow up and melt down with a single quarter (particularly the "smaller", innovative ones) and when they do, we could have huge losses on our hands. We need to discuss how and what we are going to track, at what critical intervals and how.

I want to set up some kind of early warning system as well that will signal us when certain things are swinging out of covenant (even if they aren't there yet) and we also need to figure out how to involve a technical team who can go out into the field and independently review the technical progress being made (or not).

I know everybody on the Hill and in the Admin is focused on getting deals out the door and we are now starting to do that, but, believe me, the noise will be much, much larger, if one of these blows up.

J

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585  
Phone: [REDACTED]  
email: jonathan.silver [REDACTED]

-----Original Message-----

**From:** Westerheim, Ove  
**Sent:** Thursday, February 04, 2010 10:52 AM  
**To:** DL-CF-1.3; DL-CF-1.4 ATVMLP  
**Subject:** Quarterly Compliance Certificates

All,

As we move forward with transactions into documentation and closing (Nordic, etc.), please be sure to include a form of the attached Quarterly Reporting Certificate as part of the documentation and borrower obligations. The concept is we get one quarterly delivery from each of our borrowers addressing all reporting requirements, cross referencing the covenant/reporting sections of the definitive documentation, including relevant financial covenants (rather than piecemeal deliveries without context). The form also provides for the inclusion of key performance metrics. We developed the attached form with Morrison Foerster for the Solyndra transaction, but we should be able to adopt it for all deals.

Thanks and let me know if you have any questions.

Regards,  
Ove

Ove Westerheim  
Director, Project and Portfolio Management Loan Guarantee Program U.S.  
Department of Energy  
tel: [REDACTED] fax: [REDACTED]  
ove.westerheim [REDACTED]

**From:** McCrea, Jim [REDACTED]  
**Sent:** Thursday, February 17, 2011 12:19 AM (GMT)  
**To:** jimccrea [REDACTED]  
**Subject:** FW: US Geothermal

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**From:** Barwell, Owen  
**Sent:** Wednesday, February 16, 2011 7:19:10 PM  
**To:** Hurlbut, Brandon; Winters, Matthew  
**Cc:** Silver, Jonathan; McCrea, Jim; Richardson, Susan; Hodges, Sven; O'Brien, Meghan  
**Subject:** Re: US Geothermal  
Auto forwarded by a Rule  
Brandon, I was just on the phone with Kevin and co. They are going to send over revised #s so we can re-run cashflows.  
I would still like to confirm that we need to close on Friday morning though.

Cheers, Owen

Owen F Barwell  
Chief Operating Officer  
Loan Programs Office  
US Department of Energy  
(W) [REDACTED]  
(C) [REDACTED]

-----  
**From:** Hurlbut, Brandon  
**To:** Barwell, Owen; Winters, Matthew  
**Cc:** Silver, Jonathan; McCrea, Jim  
**Sent:** Wed Feb 16 18:59:57 2011  
**Subject:** Re: US Geothermal

I hear we are changing parameters at last minute and will have to do a notch?

-----  
**From:** Barwell, Owen  
**To:** Hurlbut, Brandon; Winters, Matthew  
**Cc:** Silver, Jonathan; McCrea, Jim  
**Sent:** Wed Feb 16 18:53:33 2011  
**Subject:** RE: US Geothermal

Brandon, what "stuff" from OMB? Are approved cashflows at risk? If we do not receive approved cashflows from OMB tonight, then we do not have sufficient time to close by Friday and therefore closing will roll into next week. Cheers,  
Owen

**From:** Hurlbut, Brandon  
**Sent:** Wednesday, February 16, 2011 6:47 PM  
**To:** Winters, Matthew  
**Cc:** Silver, Jonathan; Barwell, Owen; McCrea, Jim  
**Subject:** Re: US Geothermal

At wh let's discuss first thing tomorrow - heard some stuff from omb we need to sort out.

---

**From:** Winters, Matthew  
**To:** Hurlbut, Brandon  
**Cc:** Silver, Jonathan; Barwell, Owen; McCrea, Jim  
**Sent:** Wed Feb 16 18:42:31 2011  
**Subject:** US Geothermal

Now that we know POTUS is not going to make the Solopower/USGeo announcement in Portland on Friday – and we are instead going to announce Solopower w/Chu and Wyden at 4:30pm tomorrow – the question is what do we do with USGeothermal.

With appropriate pressure applied on OMB, this deal could still close on Friday. However, if we do not apply pressure, it could slip to next week. If we continue to tell them that we need to close the deal on Friday, then this could force them to address the outstanding issue – which is a programmatic issue – other than on the back of this transaction.

Question is: Should Owen continue to tell OMB that this transaction needs to close by Friday?

Thanks.

Matt

Matthew A. Winters

Senior Advisor, Loan Programs

U.S. Department of Energy

(o 

(c 




**From:** McCrea, Jim [REDACTED]  
**Sent:** Thursday, February 17, 2011 3:14 AM (GMT)  
**To:** jimccrea [REDACTED]  
**Subject:** FW: POTUS/LPO

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-----  
**From:** Hodges, Sven  
**Sent:** Wednesday, February 16, 2011 10:14:12 PM  
**To:** Barwell, Owen; Frantz, David; Richardson, Susan; McCrea, Jim; Winters, Matthew; O'Brien, Meghan; Marcus, Christine; Fox, Lucian; Giampietro, Bonnie; Stull, Janice; Brown, Cynthia; Tyler, Susan; Loyd, Rick; Klein, Kim  
**Cc:** Silver, Jonathan; Hurlbut, Brandon  
**Subject:** RE: POTUS/LPO  
Auto forwarded by a Rule  
Thanks, Owen. As per our discussion a few moments ago, the USG deal team will target a close on Wednesday (2/23).

-----  
**From:** Barwell, Owen  
**Sent:** Wednesday, February 16, 2011 9:26 PM  
**To:** Frantz, David; Richardson, Susan; McCrea, Jim; Winters, Matthew; Hodges, Sven; O'Brien, Meghan; Marcus, Christine; Fox, Lucian; Giampietro, Bonnie; Stull, Janice; Brown, Cynthia; Tyler, Susan; Loyd, Rick; Klein, Kim  
**Cc:** Silver, Jonathan; Hurlbut, Brandon  
**Subject:** Re: POTUS/LPO

All

I just talked w/Brandon. No announcement is required on Friday for USG, so please stand down folks to a pace that targets next week for closing. OMB is doing the same.

Thanks everyone for stepping up to the challenge - our "can do" attitude is awesome.

Cheers, Owen

Owen F Barwell  
Chief Operating Officer  
Loan Programs Office  
US Department of Energy  
(W) [REDACTED]  
(c) [REDACTED]

-----  
**From:** Barwell, Owen  
**To:** Frantz, David; Richardson, Susan; McCrea, Jim; Winters, Matthew; Hodges, Sven; O'Brien, Meghan  
**Sent:** Wed Feb 16 17:15:51 2011  
**Subject:** RE: POTUS/LPO

FYI, I have left v/mails with all CFO staff, and also Christine is calling folks at home/cell phones too so we have a POC for the transaction on the budget and a/c side.

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**From:** Barwell, Owen  
**Sent:** Wednesday, February 16, 2011 3:41 PM  
**To:** Isakowitz, Steve; Johns, Christopher; Loyd, Rick  
**Cc:** Frantz, David; Richardson, Susan; McCrea, Jim; Winters, Matthew; Marcus, Christine  
**Subject:** POTUS/LPO

Steve/Chris/Rick – no action, just FYI, we shall be working closely with Bonnie, Cindy, Kim and Susan to get US Geothermal to close on Friday for POTUS visit. Let me get with our team and then I shall give them a call to get organized. Cheers, Owen

---

**From:** Silver, Jonathan  
**Sent:** Wednesday, February 16, 2011 3:34 PM  
**To:** Frantz, David; Richardson, Susan; McCrea, Jim  
**Cc:** Winters, Matthew; Barwell, Owen  
**Subject:**

See below. POTUS will be in Portland on Friday (that is a close hold) and would like to announce both deals. So, you will not be surprised to learn that OMB has cleared both. We need to get our work done on US Geothermal. I realize it is unfair. Life in the big city. Thanks! This will be a great week for the program!

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy



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**From:** Hurlbut, Brandon  
**Sent:** Wednesday, February 16, 2011 3:32 PM  
**To:** Silver, Jonathan  
**Subject:** FW:

---

**From:** Ericsson, Sally C. [mailto:Sally\_C.\_Ericsson@omb.eop.gov]  
**Sent:** Wednesday, February 16, 2011 3:28 PM  
**To:** Hurlbut, Brandon  
**Subject:**

We're 99% there. So go ahead on both and tell them we're good to go.

Check with your folks. We're hearing that USGeothermal will not close until Monday; we're done with it.

**From:** Frantz, David [REDACTED]  
**Sent:** Monday, June 28, 2010 11:14 AM (GMT)  
**To:** Silver, Jonathan [REDACTED]; 'jimmccrea [REDACTED]  
**Subject:** RE: Draft UniStar Status Language for Rod

---

Yes, but I think we should include the dates that the activity has been underway. We have been at it for sometime now over a couple of weeks which is indicative of the complete re-underwriting which is taking place.

*David G. Frantz*  
US Department of Energy  
Director, Loan Guarantee Office  
Office [REDACTED]  
[REDACTED]

---

**From:** Silver, Jonathan  
**Sent:** Saturday, June 26, 2010 9:36 PM  
**To:** 'jimmccrea [REDACTED]; Frantz, David  
**Subject:** Re: Draft UniStar Status Language for Rod

This is good. Thanks.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

---

**From:** James C McCrea <jimmccrea [REDACTED]>  
**To:** Silver, Jonathan; Frantz, David  
**Sent:** Sat Jun 26 19:53:05 2010  
**Subject:** Draft UniStar Status Language for Rod

Here is a shot at it with the intent of explaining why the process is sufficiently complex that it is not yet completed, and in fact, may take some time to complete.

#### Draft UniStar Status Language

DOE has completed its analysis of the UniStar transaction for a conditional commitment. However, this is the first step toward a conditional commitment. The DOE analysis is sent to OMB for review and approval of the credit subsidy cost range and to Treasury for required consultation. While that process is underway with both agencies, DOE receives and responds to numerous detailed questions as the other agencies complete their reviews. The process can surface policy issues that require high level discussion among the agencies and perhaps with the White House depending on the nature of the issues raised. Once OMB develops a view of the transaction and all of its elements so that it can take a position on the credit subsidy cost recommended by DOE, DOE and OMB must address any issues before OMB will approve risk and recovery ratings for the transaction at which point, the cash flows can be prepared for the calculation of the actual credit subsidy cost range. Only upon receipt of the approved credit subsidy cost range from OMB and completion of the consultation with Treasury can DOE take the transaction to its Credit Review Board for a recommendation to the Secretary that he issue a conditional commitment.

I trust that this explanation gives you a better sense of the approval process and why it takes some time to complete the process.

Jim

---



**From:** McCrea, Jim [REDACTED]  
**Sent:** Tuesday, October 19, 2010 8:47 PM (GMT)  
**To:** jimccrea [REDACTED]  
**Subject:** FW: Quick question

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-----  
**From:** Winters, Matthew  
**Sent:** Tuesday, October 19, 2010 4:47:24 PM  
**To:** McCrea, Jim  
**Subject:** Quick question  
**Auto forwarded by a Rule**

Jim-

In Jonathan's absence, I have about one hour to write the first draft of a memo to the President describing our program, the interagency problems, and our proposed solutions (no problem, right?). I may need you to be on standby for the next couple hours as questions come up, if you're available.

First favor to ask: Could you write for me a 1-2 sentence description of Credit Subsidy so a layperson (the President) could understand it? Thank you.

Matt

Matthew A. Winters  
Senior Advisor, Loan Programs  
U.S. Department of Energy  
[REDACTED]

**From:** Silver, Jonathan [REDACTED]  
**Sent:** Sunday, October 10, 2010 10:51 PM (GMT)  
**To:** jimmccrea [REDACTED]  
**Subject:** Fw;

---

Before I rip his head off just for being a putz, can your team take a crack at a technical answer to this. Thanks.  
J

Guy creates an international incident and is completely oblivious. You can't make this stuff up.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

----- Original Message -----

From: Mas, Alex [REDACTED]  
To: Silver, Jonathan  
Cc: Aldy, Joseph E. [REDACTED]  
Sent: Sun Oct 10 18:27:06 2010  
Subject: Re:

Jonathan,

Why does the current arrangement create problems for EDF? A better understanding of why this is a problem for EDF would be helpful.

Alex

----- Original Message -----

From: Silver, Jonathan [REDACTED]  
To: Mas, Alex  
Sent: Sun Oct 10 08:42:37 2010  
Subject:

Alex, Joe,

Here is a brief outline of how we would propose to resolve what appears to be the one remaining issue. My sense is that this will work for them.

Background:

- Term sheet provided to UniStar on Friday is largely acceptable to EDF
- EDF interested in larger, controlling stake in UniStar, so in a position to decide on/accept term sheet
- EDF takes exception to condition precedent language tying required PPA prices to NERA Market Report dated February 2010

Overview of approach:

- Model used to generate cash flows for credit subsidy costs utilized NERA prices
- Debt Service Coverage Ratios ("DSCR") better define credit quality of transaction and rely on many factors in addition power prices
- Tying impact of required PPAs and other factors in model to DSCRs is more robust than requiring specific power prices
- Entire debate is about an estimate of credit subsidy cost ("CSC") which will be recalculated for final score at closing based on transaction parameters nearly two years in the future

Opportunity:

- Eliminating the pricing language which creates problems for EDF enables project to proceed AND protects USG more effectively;

Proposal:

- Use DSCRs from DOE Base Case model to set credit metrics for transaction such that they match whatever pricing is in required PPAs
- If, for example, PPAs contain lower pricing, other aspects of transaction would require improvement to maintain same level of risk as measured by DSCRs

Proposed Language:

10/10/10 Term Sheet, Section 20 (ee)(i) (legal review required)


(i) a power purchase agreement or agreements for fifty percent of the Project's electrical output, (STRIKE LANGUAGE INSIDE PARENS: at a price no lower than the base case prices specified in the Independent Consultant Market Report by NERA dated February 5, 2010), and having a term at least as long as the term of the Guaranteed Loan, from an offtaker or offtakers having an investment grade credit rating ADD THE FOLLOWING (the "Required PPAs". After giving effect to the Required PPAs (a) the DSCR at the end of each 6 month period during the repayment period of the Loan Facilities is projected to be equal to or greater than 1.37 to 1, (b) the average semi-annual projected DSCR following the projected Project Completion Date through the Maturity Date of the ECA loan is equal to or greater than 2.09 to 1, and (c) the average semi-annual projected DSCR following the projected Project Completion Date through the Maturity Date of the DOE loan is equal to or greater than 2.21 to 1, in each case, calculated using the Base Case Projections at Financial Closing and as agreed to by the DOE with input from the IE.)

We believe this works. It addresses the cdf concern and keeps the project tied to the pricing which locks in the repayments capability.

Let me know what you think.

J

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy



**From:** James C McCrea <[REDACTED]>  
**Sent:** Monday, January 4, 2010 2:43 PM (GMT)  
**To:** 'Miller, Bill' [REDACTED]  
**Subject:** RE: More on NINA/CPS. Gets Real Ugly

---

Bill --

That makes sense to me. I am down in DC this week and will stop by or see you at the Staff Meeting. I have some info to pass on to you.

Jim

---

James C. McCrea

[REDACTED]

-----Original Message-----

From: Miller, Bill [mailto:Bill.Miller@[REDACTED]]  
Sent: Monday, January 04, 2010 9:17 AM  
To: Corrigan, Richard; Bice, William; James C McCrea; Hulihan, Terrence; Arigbede, Kimberley; Sprow, John; Orme, James; Fitzpatrick, Timothy; barbian [REDACTED] drsever [REDACTED]  
Subject: RE: More on NINA/CPS. Gets Real Ugly

All -- I did talk with David J from CPS before the holiday. The basic answer is that applications for our program are applicant-specific, and not "transferable" or up for sale.

William G. Miller  
Loan Guarantee Program

[REDACTED]

-----Original Message-----

From: Corrigan, Richard  
Sent: Thursday, December 31, 2009 11:50 AM  
To: 'Bice, William'; James C McCrea; Miller, Bill; Hulihan, Terrence; Arigbede, Kimberley; Sprow, John; Orme, James; Fitzpatrick, Timothy; barbian [REDACTED] drsever [REDACTED]  
Subject: RE: More on NINA/CPS. Gets Real Ugly

Did Bill ever broach the request from CPS below in the week before Christmas?

"Bill,

I am just curious if you have made any inquiries into this? I realize that it is the holiday season and people may be off. I hope your holiday time is relaxing and enjoyable. Thanks in advance,

David

-----Original Message-----

From: Jungman, David C.  
Sent: Tuesday, December 22, 2009 3:34 PM  
To: 'Bill.miller' [REDACTED]  
Subject: CPS Energy

Bill,

Pursuant to our discussion this morning this morning, I would like for



you to explore with your legal and your management at DOE to determine if we were to sell either a part or all of our interests in STP 3 & 4 to a 3rd party, whether the 3rd party would be eligible for DOE loan guarantees. Or what the process would be for this 3rd party to become eligible for DOE loan guarantees. Thanks in advance,  
David Jungman\*

As background I had gotten a similar call from David Jungman while I was out of the office and deferred to Bill.

My initial response was that a partial sale might be possible but an outright sale would be difficult for a couple of reasons.

1. We would have to reopen our analysis of the transaction, in effect reopening the solicitation.
2. It would put DOE in an awkward position with the other non-selected applicants (remember we have never formally eliminated anyone - everyone has self selected out) whom we have kept involved given the possibility that one or more of the original selected parties might drop out of the application or NRC licensing process.

Jim and I have talked about this briefly but it appears to be another avenue for CPS to try to extract some value from its expenditures in STP 3&S which we understand may become even more valuable given the efforts to push the Tres Amigas project in eastern New Mexico that is being led by Governor Richardson.

Happy New Year!

Richard Corrigan  
Senior Advisor  
Department of Energy  
Loan Guarantee Program

-----Original Message-----

From: Bice, William [mailto:wbice@doe.gov]  
Sent: Monday, December 28, 2009 2:40 PM  
To: James C McCrea; Miller, Bill; Hulihan, Terrence; Arighbede, Kimberley; Corrigan, Richard; Sprow, John; Orme, James; Fitzpatrick, Timothy; barbian [mailto:barbian@doe.gov]; Jessever [mailto:jessever@doe.gov]  
Subject: RE: More on NINA/CPS. Gets Real Ugly

Litigation is rarely pretty.

Are folks still intending to provide comments to the term sheet issues list today?

---

From: James C McCrea [mailto:jimmccrea@doe.gov]  
Sent: Monday, December 28, 2009 10:15 AM  
To: Bill Miller; Terrence Hulihan; [mailto:terrence.hulihan@doe.gov]; Kimberley arighbede; [mailto:kimberley.arighbede@doe.gov]; Corrigan, Richard; J. Anthony Sprow  
Bice, William; Orme, James; Fitzpatrick, Timothy; barbian [mailto:barbian@doe.gov]

Paul had spotted this story and mentioned it. The CPS/NINA litigation is getting really ugly as the story below shows. The concern I have is that the numbers are so enormous that it begin to make it hard for there to be a settlement at substantially smaller numbers. The words from the new CPS Acting GM are rather harsh. While they are intended for public consumption, they do have consequences.

Web Posted: 12/24/2009 12:00 CST

CPS seeks \$32 billion in STP damages

Top of Form

Bottom of Form

Recommend

<[http://www.mysanantonio.com/news/local\\_news/CPS\\_seeks\\_32\\_billion\\_in\\_STP\\_damages.html](http://www.mysanantonio.com/news/local_news/CPS_seeks_32_billion_in_STP_damages.html)>

<[http://www.mysanantonio.com/news/local\\_news/CPS\\_seeks\\_32\\_billion\\_in\\_STP\\_damages.html](http://www.mysanantonio.com/news/local_news/CPS_seeks_32_billion_in_STP_damages.html)> 1

By Anton Caputo

<[http://www.mysanantonio.com/email\\_us?contentID=80039727](http://www.mysanantonio.com/email_us?contentID=80039727)> - Express-News

CPS Energy and its partner traded high-dollar blows Wednesday in the growing legal battle over the nuclear project.

Nuclear Innovation North America, CPS Energy's partner, claimed San Antonio's utility was in breach of contract and should lose the hundreds of millions it invested if it didn't agree soon to keep funding the deal.

NINA, which is a nuclear development joint venture between NRG Energy and Toshiba Inc., made the accusations in a response late Wednesday afternoon to a lawsuit CPS filed earlier this month.

Hours later, CPS shot back with new allegations against NINA, NRG and Toshiba, the project contractor.

In court documents, CPS claimed the companies engaged in "fraudulent, defamatory and illegal conduct" to "manipulate project costs for their collective benefit."

CPS asked the court to award it at least \$32 billion in damages.

"The message I want to send NRG and NINA is that we are not suckers,"

CPS Acting General Manager Jelynn LeBlanc-Burley said Wednesday night.

"A business solution will benefit both, the sooner we get out of the courts the better. But make no mistake. I am not afraid of having this issue resolved in the courts."

NRG spokesman David Knox said the company hadn't had enough time Wednesday night to comment on CPS' allegations.

NINA President Steve Winn said earlier in the day that his company also preferred to settle the lawsuit quickly out of court so it could continue with the development of two proposed reactors at the South Texas Project.

"I think there are probably 20 different ways where there might be a solution that allows the project to go forward and the appropriate long-term decisions to be made by CPS," Winn said. "Our goal right now is to get to a negotiated outcome as quickly as we can."

CPS' new allegations included the charge that NRG and Toshiba formed their partnership without disclosing their full financial relationship. The city-owned utility also accused NINA, NRG and Toshiba of a "conspiracy" by luring CPS into the project to help finance it and then "engaging in a coordinated public effort to disseminate false information about CPS Energy for the purpose of ousting CPS Energy."

"His (Winn's) history has been spent on Wall Street, and I don't want him to get the impression he can come to San Antonio, Texas, come to Commerce Street, and sell this community a bill of goods."

LeBlanc-Burley said.

In its lawsuit, CPS asked the court to clarify its rights if it pulls

out of the project.

Winn said the agreements between the companies are clear and "that they (CPS) lose everything." NINA claims CPS has "blocked the approval of several pending purchase orders" that are critical of the project and taken other steps to stall the project.

NINA also contended San Antonio's indecision on whether it will stay in the project put it in jeopardy. It asked the court to declare CPS actually has withdrawn from the project, which CPS denied, and no longer had any ownership or the ability to recover the approximately \$300 million it spent.

NINA also charged that CPS' "ongoing vacillation" put the project's federal loan guarantees at risk. Such loan guarantees are thought to be crucial for nuclear projects because of the billions of dollars needed and the fact that the federal government hasn't issued a permit to build a nuclear plant since the 1970s.

The federal government approved \$18.5 billion in loan guarantees, and, according to recent statements from Vice President Joe Biden's office, planned to issue those guarantees to two projects.

The South Texas Project is on a short list of four that could receive the guarantees. But Winn said it had fallen from first to second because of the delays, and soon could fall to third.

That move, he said, could prove fatal.

"If we don't resolve this soon, we may not need to resolve it at all,"

Winn said.

LeBlanc-Burley said that CPS was in contact with the Energy Department's loan guarantee office multiple times since Dec. 15 and informed it of CPS' timetable, which called for making a decision by mid-January. "Understanding that schedule, they have not indicated that we have placed any consideration at risk," she said.

CPS spent or approved spending about \$375 million on the project so far. If it stays in, that number would jump to \$1.2 billion before the scheduled 2012 construction begins. The ultimate cost of the project was still unknown and won't be set until then.

Toshiba was expected to deliver an official cost estimate next week.

LeBlanc-Burley said her staff would vet the estimate and present it to the public in mid-January when it makes a recommendation about San Antonio's role in the nuclear expansion.

CPS' board and the City Council would have the final say.

A preliminary cost update recently obtained by the San Antonio Express-News put the total cost of the project at \$18.2 billion. That was about \$5 billion more than the utility said the project would cost at community meetings this summer.

LeBlanc-Burley said that the number was an informal estimate provided to the board for planning purposes and not the official number.

She also said she believed the nuclear project is a valuable asset, but it might not be right for San Antonio.

"This particular deal remains to be seen," she said. "This particular project will be evaluated on its merits, and it may not be the best opportunity for this community."

Jim

---

James C. McCrea



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**Anything new**

5 email suggestions

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**Peter O'Rourke** <[REDACTED]>  
To: Morgan Wright <[REDACTED]>

Sat, Oct 8, 2011 at 6:36 AM

With all that fun stuff?? How's winters.

You see the spinner stories on cnn.com?

Peter O'Rourke

---

**Peter O'Rourke** <[REDACTED]>  
To: Morgan Wright <[REDACTED]>

Sat, Oct 8, 2011 at 9:03 AM

Why is Dave freaked?

That sounds like a plan at least

Peter O'Rourke

On Oct 8, 2011, at 8:07 AM, Morgan Wright <[REDACTED]> wrote:

Still a bit in flux. Everyone is acutely aware of the issue. Susan says Dave is freaked out and last night Brandon asked if I would be COO and Matt move up to Poneman's office and oversee Dave to minimize his responsibilities. Sound familiar? They're confident they can get a real new director shortly. I actually think this could work for a while since everyone's eyes are wide open.

[Quoted text hidden]

---

**Peter O'Rourke** <[REDACTED]>  
To: Morgan Wright <[REDACTED]>

Sat, Oct 8, 2011 at 10:03 AM

Yikes.

Peter O'Rourke

On Oct 8, 2011, at 9:33 AM, Morgan Wright <[REDACTED]> wrote:

I think it has become apparent to him that he doesn't have the confidence of the team.

[Quoted text hidden]

**From:** James C McCrea [REDACTED]  
**Sent:** Tuesday, May 25, 2010 2:22 AM (GMT)  
**To:** 'Silver, Jonathan' [REDACTED]@hq.doe.gov>  
**Subject:** RE: Follow-up questions re: Geothermal projects

---

I don't have to say anything. There is another response going out late this evening on Abengoa that will take it from 93% complete to 96 or so percent. I will simply send that to everyone.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

---

**From:** Silver, Jonathan [REDACTED]@hq.doe.gov]  
**Sent:** Monday, May 24, 2010 10:06 PM  
**To:** [REDACTED]  
**Subject:** Re: Follow-up questions re: Geothermal projects

If I did, I changed my mind.

I have to believe they asked to cut the list because they must have an inkling that's this is over the top.

Don't say I asked you to send it if you've already sent, just refine or add a question and send it over saying its updated. Then send to everyone.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

---

**From:** James C McCrea - [REDACTED]  
**To:** Silver, Jonathan  
**Sent:** Mon May 24 22:02:03 2010  
**Subject:** RE: Follow-up questions re: Geothermal projects

I had asked you about that last week and you had said to leave the White House off the Abengoa response. I would be glad to add them.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

**From:** Silver, Jonathan [REDACTED]@hq.doe.gov  
**Sent:** Monday, May 24, 2010 9:51 PM  
**To:** [REDACTED]  
**Subject:** Re: Follow-up questions re: Geothermal projects

I noticed that they have shrunk the email list. Let's be sure our abengoa responses and these go to the full list.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

---

**From:** James C McCrea [REDACTED] <[REDACTED]>  
**To:** Silver, Jonathan  
**Sent:** Mon May 24 21:48:47 2010  
**Subject:** RE: Follow-up questions re: Geothermal projects

I don't know that forum well enough to have a fair view. I keep going back to ask the question of why all these questions are necessary to approve the credit subsidy cost range that we submit? Perhaps we send the questions and responses on these three deals to the 7<sup>th</sup> floor and tell them that in light of this support from OMB/Treasury, our maximum monthly production will be capped at 3 deals. We simply do not control our destiny. I particularly loved the question about lessons learned from the DOE's geothermal lending program of the 1970's and 1980's. We are using lessons learned not from that program but from commercial geothermal lending in the 1990's and 2000's plus the state of the knowledge about geothermal has advances significantly since that time. Would you want to make decisions based on 1970's down well data technology or from current down well technology? I think that we are going to have some fun answering that question.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]

---

**From:** Silver, Jonathan [REDACTED]@hq.doe.gov  
**Sent:** Monday, May 24, 2010 9:35 PM  
**To:** [REDACTED]  
**Subject:** Re: Follow-up questions re: Geothermal projects

I wonder whether we should put together a package of these and the abengoa questions to share with orszag at the thursday meeting.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

---

**From:** James C McCrea [REDACTED] <[REDACTED]>  
**To:** Silver, Jonathan  
**Sent:** Mon May 24 21:07:33 2010


**Subject:** FW: Follow-up questions re: Geothermal projects

These just arrived from OMB & Treasury. Thought that you might want to see the level of questioning that we are facing. Some of these questions are not bad questions but they are way in excess of what is needed to establish the credit subsidy cost. The questions are getting more and more rigorous and going further and further into re-underwriting the transactions. Most are not bad questions but OMB/Treasury seems to think that it is serving as Credit Committee and CRB all rolled into one. If this level of questioning keeps up, we will definitely have to cut production.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC



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**From:** McCrea, Jim [REDACTED]@Hq.Doe.Gov]  
**Sent:** Monday, May 24, 2010 8:33 PM

**Subject:** FW: Follow-up questions re: Geothermal projects

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From: Saad, Fouad P. [REDACTED]@OMB.EOP.GOV]  
Sent: Monday, May 24, 2010 8:33:05 PM  
To: McCrea, Jim; Frantz, David  
Cc: Colyar, Kelly T.; Carroll, Kevin; Mertens, Richard A.;  
[REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov;  
[REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov;  
[REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov  
**Subject:** Follow-up questions re: Geothermal projects

Auto forwarded by a Rule

Thank you for the materials and briefings you provided to us last week on the two geothermal transactions. Please find attached follow-up questions from OMB and Treasury regarding the Blue Mountain and US Geothermal (Neal Hot Springs) projects.

If you have any questions on these, please let us know.

Regards,  
Fouad

JM\_00076958



**From:** McCrea, Jim <[REDACTED]@Hq.Doe.Gov>  
**Sent:** Thursday, June 24, 2010 1:17 PM (GMT)  
**To:** jimccrea [REDACTED]  
**Subject:** FW: Credit Subsidy Cost for Title XVII Loan Guarantees

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From: Silver, Jonathan  
Sent: Thursday, June 24, 2010 9:16:33 AM  
To: Corrigan, Richard; Frantz, David  
Cc: McCrea, Jim; Hulihan, Terrence; Whitcombe, Nicholas  
Subject: RE: Credit Subsidy Cost for Title XVII Loan Guarantees  
Auto forwarded by a Rule  
No emails on this please.  
Let's get together to discuss.  
Chris is out today. I can do something after 2pm.

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585  
[REDACTED]

-----  
**From:** Corrigan, Richard  
**Sent:** Thursday, June 24, 2010 8:44 AM  
**To:** Silver, Jonathan; Frantz, David  
**Cc:** McCrea, Jim; Hulihan, Terrence; Whitcombe, Nicholas  
**Subject:** FW: Credit Subsidy Cost for Title XVII Loan Guarantees

NEI called last night and indicated they plan to release the attached whitepaper and cover letter to the White House and to selected members of Congress. They wanted to know if we had any objections to or comments on the study itself that they might incorporate into the white paper. They are looking for a response from us in the next day or so.


I had already circulated a copy of the letter to Jim, Terry and Nick. I reviewed it again last night and except for a few nits I do not find it objectionable and, in fact, it incorporates many of the arguments that we had originally advanced in the early rounds of discussion on subsidy models. The approach they are recommending, which when distilled to its essence, argues that different types of credit classes have different drivers that should influence the risk profile and the pricing for that risk. This approach is consistent with the methodology other USG guarantee programs use for their credit subsidy calculations (OPIC, for example, has at least 4 subsidy models for different project types and sizes).

Let me know how you would like to handle this, but I will not go back to Richard Myers until I have heard from you.

Richard Corrigan  
Senior Advisor  
Department of Energy  
Loan Guarantee Program  
1000 Independence Ave, SW  
[REDACTED]

  
National Interest Advanced Solutions, an IBM company

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**From:** MYERS, Richard [mailto:@nei.org]  
**Sent:** Thursday, June 17, 2010 10:04 AM  
**To:** Silver, Jonathan  
**Cc:** Frantz, David; Corrigan, Richard; 'Joe Hezir'; KASS, Leslie  
**Subject:** Credit Subsidy Cost for Title XVII Loan Guarantees

Jonathan -


As you know from our previous discussions, the nuclear energy industry is concerned about a number of issues associated with the credit subsidy cost of Title XVII loan guarantees. Specifically, we are frustrated over the lack of transparency associated with the process of developing the credit subsidy cost; and we are concerned about some of the key assumptions and inputs – particularly regarding probability of default and recovery rate – used in the Credit Subsidy Calculator to estimate credit subsidy costs.

In the letter attached, we propose a number of steps to improve the transparency and accuracy of the process by which credit subsidy costs are calculated. Also attached is an advance copy of a White Paper prepared by NEI that examines the relevant historical data on default probabilities and recovery rates for projects like the nuclear power projects eligible for Title XVII loan guarantees. We believe the findings in the White Paper raise questions about the assumptions employed by the DOE and the OMB to calculate credit subsidy costs. We suspect the assumptions on default probability and recovery rate are either unrealistic or lack a factual basis, which inflates the calculation of credit subsidy cost well beyond the level required to compensate the federal government for the risk taken in providing the loan guarantee.

We appreciate your consideration of these recommendations, and welcome your review of the White Paper. We obviously intend to use the White Paper with a broader audience, and would welcome any comments on it before we distribute it more broadly.

I will be in touch with your office next week to discuss next steps.

Regards - Richard

RICHARD J. MYERS  
*Vice President, Policy Development*  
NUCLEAR ENERGY INSTITUTE  
1776 I Street N.W.  
Washington, D.C. 20006  


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Sent through [outbound mailwise.com](https://mailwise.com)



Peter O'Rourke &lt;[REDACTED]&gt;

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**Beacon**

3 email subjects

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**Peter O'Rourke** <[REDACTED]>  
To: **Morgan Wright** <[REDACTED]>

Tue, Nov 1, 2011 at 8:02 AM

At least corzine's mess kept it a pretty small story. You speak with David K?

Peter O'Rourke

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**Morgan Wright** <[REDACTED]>  
To: **Peter O'Rourke** <[REDACTED]>

Tue, Nov 1, 2011 at 8:23 AM

First smart thing they did was file at 2pm on Sunday during football on a holiday weekend. I did talk to David. Wasn't quite as pointed as you thought. He has a bug about SunPower and talks to Stearns staff occasionally. CVSR came up in one of those talks. No intention of participating in a hearing or anything. How you doing? Bored yet?

[Quoted text hidden]

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**Peter O'Rourke** <[REDACTED]>  
To: [REDACTED]

Tue, Nov 1, 2011 at 9:15 AM

Not too bored. Having some interesting talks.

Peter O'Rourke

[Quoted text hidden]



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**Follow-on to bright source**[1 email subject](#)

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**Peter O'Rourke** <[REDACTED]>

Thu, Apr 12, 2012 at 6:55 PM

To: Jonathan Silver &lt;[REDACTED]&gt;

**Subject:** RE: Brightsource cancels IPO

It's not public knowledge yet but First Solar will be closing its plants in Germany and Vietnam and shuttering its Ohio facility for at least the next 3 years. I think they're going to have to give back some of their German grant money.

---

**Peter O'Rourke** <[REDACTED]>

Thu, Apr 12, 2012 at 8:58 PM

To: Jonathan Silver &lt;[REDACTED]&gt;

It's worth discussing, but I think it remains very attractive. The difference is that tax equity is for projects not corporate finance. The first solar projects still will perform, and so the te will still hit their returns.

The bigger issue is that with brightsource and now this, there may be some interesting larger acquisition opportunities. A broker dealer could facilitate. It would be nice to have the mezz fund in place...

I have a partner in china who called today about brightsource.

Peter O'Rourke

On Apr 12, 2012, at 8:44 PM, Jonathan Silver <[REDACTED]> wrote:

Wow. Te industry is falling apart. You think we should rethink the timing on the tef?  
What makes folks want to do tax equity, given what Ed said, in this kind of environment?

Jonathan Silver

[REDACTED]

On Apr 12, 2012, at 3:55 PM, Peter O'Rourke <[REDACTED]> wrote:

**Subject:** RE: Brightsource cancels IPO

It's not public knowledge yet but First Solar will be closing its plants in Germany and Vietnam and shuttering its Ohio facility for at least the next 3 years. I think they're going to have to give back some of their German grant money.

---

**Jonathan Silver** <[REDACTED]>

Fri, Apr 13, 2012 at 10:50 AM

To: Peter O'Rourke &lt;[REDACTED]&gt;

Of course, but only if people conclude that they should do the projects in the first place. Who does projects with 2 dollar gas?

Jonathan Silver

[REDACTED]

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**From:** Peter O'Rourke <[REDACTED]>  
**Date:** Thu, 12 Apr 2012 20:58:06 -0400  
**To:** Jonathan Silver <[REDACTED]>  
**Subject:** Re: Follow-on to bright source

[Quoted text hidden]

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**Peter O'Rourke** <[REDACTED]>  
To: Jonathan Silver <[REDACTED]>

Fri, Apr 13, 2012 at 11:07 AM

Gas prices are a bit of a double edged sword. Makes doing renewable projects more affordable on aggregate, as overall utility costs are lower b/c of gas prices. There's obviously the counter that why would utilities pay for renewables. But, that's largely driven by things like RPS's -- even with gas where it is now, there are still plenty of solid PPAs out there.

All of that said, without the ability to do projects, I don't believe there is any GB. Not sure if you view the same, but that's the major part of the market for the next 5 years. At least in my opinion. The TE industry isn't falling apart, it's the corp market that's crashing. Projects are still happening -- Brightsource, First Solar, etc.... But we could have a huge pullback on TE and still there's a big gap needing to be filled.

I'm around to discuss if you want to.

Also, have an update from Plowe -- he's trying to come up with a compromise solution, given eventualities on how he leaves the Bank.

[Quoted text hidden]

**From:** McCrea, Jim (CONTR) <[REDACTED]@Hq.Doe.Gov>  
**Sent:** Wednesday, March 14, 2012 12:24 PM (GMT)  
**To:** jimmccrea@[REDACTED]  
**Subject:** FW:

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From: Frantz, David  
Sent: Wednesday, March 14, 2012 8:24:00 AM  
To: McCrea, Jim (CONTR)  
Subject: FW:  
Auto forwarded by a Rule

FYI

David G. Frantz  
US Department of Energy  
Director, Loan Programs Office  
[REDACTED]

-----Original Message-----

From: Kauffman, Richard  
Sent: Tuesday, March 13, 2012 10:03 PM  
To: Whitcombe, Nicholas; Frantz, David  
Subject: Re:

Nick,

I'm only a part-timer loan person with a short tenure so far, but I have been involved enough to feel some of your pain about the abuse directed against LPO and the unfairness of attacks on the professionalism and integrity of its people.

I didn't watch the hearing because I was at the tax equity seminar so I don't know the context of Allison's remarks. I did hear from others that he generally did an excellent job in defending a number of points, including subordination. From his report, Allison is sympathetic to the need to provide sufficient funding to support management of the portfolio over its tenor (it was his first recommendation). Hence, I would be careful not to infer too much into his comments about the current quality of staff. I don't think you or I would object to a statement that suggested that it will be difficult to attract or retain talent if the program has no new lending authority nor sufficient funds to support management of the portfolio.

However, let me read the transcript and if I feel that his comments are out of line, I will tell him when the Secretary and I speak with him on Thursday.

It is cold comfort, I know, but I feel terrible for the attacks on LPO and I will always respect the team for its sacrifices in a mission that is as important to our country as anything our military does.

Richard

----- Original Message -----

From: Whitcombe, Nicholas  
Sent: Tuesday, March 13, 2012 09:04 PM  
To: Frantz, David; Kauffman, Richard  
Subject:

As you may know, working at LPO is quite possibly toxic to a career. It is an issue I struggle with every day. Herb Allison's comments to the Senate today that quality staff are not attracted to work at LPO because of the possible tenor of the program should be completely insulting to staff. It implies that current staff is of low quality. Nothing less than a complete apology or clarification is in order - quickly.

Nick Whitcombe  
US Department of Energy  
[REDACTED]

JM\_00532657

**From:** James C McCrea <jimmccrea@[REDACTED]>  
**Sent:** Monday, December 14, 2009 4:27 AM (GMT)  
**To:** 'Colyar, Kelly' <Kelly.Colyar@[REDACTED]>; 'Brian Oakley' <boakley@[REDACTED].com>  
**Subject:** RE:

---

I am sure it will get rough. Just reviewed the revised version of the CP deck. I think it looks great. I think the Summary works under the circumstances. Conclusion is that it is highly speculative. That is a fair assessment.

I am headed to bed. The alarm is early or I won't make the flight.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Colyar, Kelly [mailto:[REDACTED]@hq.doe.gov]  
Sent: Sunday, December 13, 2009 11:20 PM  
To: James C McCrea; Brian Oakley  
Subject: RE:

We may have one dissenting vote (hold that tight). Fasten your seatbelt, this will get rough.

-----Original Message-----

From: James C McCrea [mailto:jimmccrea@[REDACTED]]  
Sent: Sunday, December 13, 2009 10:46 PM  
To: 'Brian Oakley'; Colyar, Kelly  
Subject: RE:

I agree with Brian, both regarding the paper bag and the equity investors. This is a difficult and thin transaction, it may be difficult to raise equity and plenty of potential for things to go wrong especially given the tight sequencing. I think we make the issues clear and let them do what they want to do. Just factual and unemotional as you said earlier. Certainly, the political stakes appear to be rather high!!!!

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Brian Oakley [mailto:boakley@[REDACTED].com]  
Sent: Sunday, December 13, 2009 10:34 PM  
To: Colyar, Kelly; James C McCrea




Subject: RE:

I'm breathing into a paper bag right now, but I do think we can take comfort in the fact that most equity investors will struggle with this.

Brian Oakley  
Scully Capital




-----Original Message-----

From: Colyar, Kelly [mailto:@hq.doc.gov]  
Sent: Sunday, December 13, 2009 10:35 PM  
To: James C McCrea; Brian Oakley  
Subject: RE:

Jim--I can't string you out on this. The politics are too strong. If anyone goes down, it's me--what do I have to lose. I will take the lead in delivering message on this.

-----Original Message-----

From: James C McCrea [mailto:jimmccrea@.net]  
Sent: Sunday, December 13, 2009 10:31 PM  
To: Colyar, Kelly; 'Brian Oakley'  
Subject: RE:

Oh my!!!


Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC



-----Original Message-----

From: Colyar, Kelly [mailto:@hq.doc.gov]  
Sent: Sunday, December 13, 2009 10:27 PM  
To: James C McCrea; Brian Oakley  
Subject: FW:

fyi--hold this tight.

-----Original Message-----

From: Silver, Jonathan  
Sent: Sunday, December 13, 2009 10:26 PM  
To: Schultz, Douglas  
Cc: Colyar, Kelly  
Subject:


Doug,

Can you come see me first thing tomorrow morning. I would like to review the bright source schedule and see if there is any chance at all of

JM\_00122644

getting it into this week's crb. If we did, and it got approved, potus could discuss both it and vogle together. Big play for the igp. Let's try to touch base around 8. Kelly, join us if you can.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy



**From:** jim McCrea <jimmccrea@[REDACTED]>  
**Sent:** Thursday, February 3, 2011 1:23 AM (GMT)  
**To:** 'Silver, Jonathan' <[REDACTED]>  
**Subject:** RE:

---

SWIP is a very useful example of how we have been "saved"

DOE Gate 2 submittal BB 65% pre completion 75% post completion credit subsidy range 4.48%-8.90%

OMB approved Gate 2 BB- 55% 75% CSC range 7.05% - 11.19%

DOE submittal at closing BB 65% 75% This submittal was approved by OMB without change and resulted in a credit subsidy cost of 1.55%

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]]  
Sent: Wednesday, February 02, 2011 8:05 PM  
To: jimmccrea@[REDACTED]  
Subject: Re:

Any stats that might be useful?

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

----- Original Message -----

From: jim McCrea <jimmccrea@[REDACTED]>  
To: Silver, Jonathan  
Sent: Wed Feb 02 20:03:04 2011  
Subject: RE:

Well, that is icing on the cake! Let me know if there is anything I can do to help. However, I have to say that I have not been saved yet!

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Silver, Jonathan [mailto: [REDACTED]]  
Sent: Wednesday, February 02, 2011 8:01 PM  
To: jimmcera@ [REDACTED]  
Subject:

Fire drill on how to show the quality (not volume) of our work for clu's mtg with potus tomorrow. Potus hears from his folks that we don't know what we are doing and they are saving him from us.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

**From:** James C McCrea [REDACTED]  
**Sent:** Thursday, September 3, 2009 12:22 PM (GMT)  
**To:** 'Roger McDaniel' [REDACTED]; 'Don Bennett'  
[REDACTED]; Bernard P. Roesch  
[REDACTED]  
**Subject:** AREVA Update

---

I got an e-mail from David Schmitzer late yesterday which contained the following:

You may have heard that the DOE is now looking to take this project to the credit committee at the end of October, not September, and Areva has been so notified (happened while I was out of the office). Areva still wants to pursue an aggressive schedule so we should proceed with speed to be ready for a September Board in case we get called.)

In discussion with him, I let him know that this was the first that we had heard of the delay. It appears that this is largely a political decision which relates to the continued effort by the DOE to grapple with the USEC matter. At any rate, these kinds of issues take place above us and should not influence how we do our work other than impacting the schedule that we are on and for that, we take guidance from David as he has given. I think that David is right to take the possibility of a September CRB meeting seriously. Although David did not mention it, AREVA's Board meeting has not changed and I suspect that there is a real possibility of high level pressure (perhaps even above Sam Shakir) being put on the DOE to meet the September timetable. I think that David's intention is to be ready if that occurs and to not be put in a position where he and Team North is then the problem or the excuse for not being on the September CRB.

By now, you have all seen David's e-mail exchange from yesterday with AREVA re the Weds. meeting next week. Here is what I believe is on tap for next week and how we should approach it:

- **Tues:** David want to really scrub the CRB presentation and to get it into largely final form to the extent that is possible. We also have to address the IE draft and our views of the AREVA markup of the terms sheet. We should get both the IE draft and the mark up this week. Roger, Don and I will be at DOE next week. At this point, my view remains that it would be better for both Bernard and John to work from their offices and to be patched in as appropriate. The concern I have is that there will be scenarios that need to be run of credit analysis and research that will be much more effectively completed with Bernard and John in their offices rather than at the DOE.
- **Weds:** Term sheet negotiations with AREVA and their counsel
- **Thurs:** AREVA effort will be catch up on things that are still outstanding. I suspect that there will be additional work on the credit paper. Roger and I will still be in DC however, I am tied up most of the day in meetings with NINA, CPS, JBIC and NEXI as that project kicks into high gear.
- **Fri:** There may well be another term sheet session with AREVA.

Several other points:

- We are going to need to incorporate the Parsons view of the world into the model assumptions. We may be able to get that information entirely out of the Parson's report but I suspect not. We should on the Fri call with Parsons, alert Parsons of that effort on our part and find out who should be the Parsons point of contact as questions arise. Bernard may be chasing this stuff down by himself on next week and in doing so, it will be important to keep detailed notes on the model changes for discussion with Roger and the rest of the team.
- I am thinking that David Schmitzer is likely to have a good number of questions about the various credits, especially AREVA that may result in additional research or modification to written sections to address these questions. We should be ready for this effort.

John -- Could you let us know where you stand on the AREVA credit analysis and when we might see a draft of it. David inquired as to your status on that piece which puts some pressure on us as a team to work through a draft. I told him that we had tasked you with the offtake contracts first and that you were deep in the midst of the AREVA work currently.

John -- Could you prepare an overview paper on the offtake credits summarizing the results of the work that you and Don have done? I think that would be helpful.

All -- We should review as soon as possible (which may mean over the weekend as it will in my case) the offtake credit analyses that John and Don have prepared and circulate our comments. My thought is that responsibility for addressing the comments is likely to fall on John and task will be on his plate for next week as well.

All -- As transactions go to the credit committee, OMB and CRB, they undergo review from Kelly Colyar (Acting Director, Credit Policy) and her staff. Kelly is also the one who takes the transactions through the OMB process. John and I are working for her as reviewers on some transactions currently. As part of that process, there will likely be a bunch of questions and interaction with the team that Kelly has assigned to the AREVA transaction. That team includes Brian Oakley of Scully Financial and a woman named Renee. I am not sure of her last name which from her e-mail might be Sass. I also am not sure of her affiliation but think it might be Scully as well. At any point, I wanted to alert you in case you get calls or e-mail from Kelly, Brian or Renee as responding should be a priority in order to keep things on track. Please copy both David Schmitzer and me on any e-mails.

Don -- I have reviewed the ETC writeup that you prepared and have no issues with it. Would you be comfortable with it being shared with David? I think it would be important for him to see the extent of the ETC issue at this time.

All -- comments or thoughts? Anything I missed?

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC



**From:** James C McCrea <jimmccrea@[REDACTED]>  
**Sent:** Wednesday, June 23, 2010 3:07 AM (GMT)  
**To:** 'Silver, Jonathan' <[REDACTED]@hq.doe.gov>  
**Subject:** RE: new manufacturing solicitation

---

Agreed re staff driven. Unfortunately, his staff is protectionist at all costs rather than helping the EOP achieve any objectives at all. Further, their view is that a non decision is safe as you can't be wrong forgetting that non decisions have their own perils.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
Sent: Tuesday, June 22, 2010 11:00 PM  
To: jimmccrea@[REDACTED]  
Subject: Re: new manufacturing solicitation

He has become staff driven as well, the result of being stretched too thin and, he has a vested interest in "his team", forgetting that we are all on the same team.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]@hq.doe.gov

----- Original Message -----

From: James C McCrea <jimmccrea@[REDACTED]>  
To: Silver, Jonathan  
Sent: Tue Jun 22 22:41:47 2010  
Subject: RE: new manufacturing solicitation

That is ugly. Unfortunately, I am coming to believe that Jeff is as much of a problem as the rest of them over there. They really have no concerns as to whether we are able to meet our statutory requirements nor whether we help advance the strategy increasingly being enunciated by the President as part of his response to the Gulf.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
Sent: Tuesday, June 22, 2010 9:59 PM  
To: jimmccrea@[REDACTED]  
Subject: Fw: new manufacturing solicitation

Fyi  
Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]@hq.doe.gov

----- Original Message -----

From: Lieberman, Jeffrey B. <[REDACTED]@omb.eop.gov>  
To: Silver, Jonathan  
Sent: Tue Jun 22 21:36:51 2010  
Subject: RE: new manufacturing solicitation

Based on a quick read, I don't think this works. I'll have my folks look at it carefully though and then get back to you with a considered reply.

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
Sent: Tuesday, June 22, 2010 7:58 PM  
To: Lieberman, Jeffrey B.  
Subject: new manufacturing solicitation

Jeff,

When we spoke about the new manufacturing solicitation in the principals meeting two weeks ago, Peter indicated that he was comfortable with it going out the door as long as we did not permit the applicants to "double dip" by using 48c money as part of their equity contribution. At the meeting, we generally said that, a project that received a 48C tax credit under Section 1302 of the Recovery Act, should not be permitted to apply for a loan guarantee under the new solicitation.

We've now looked at this issue in detail and, not surprisingly, there are some challenges with that blanket approach. We can definitely still achieve what Peter wants (no double dipping by applicants in the new solicitation), but I'd like to suggest a modification to the "blanket approach" for a number of reasons.

First, we should be clear that 48C is a tax credit that accrues to the benefit of the Sponsor (and, if applicable, other equity investors) only if and when they have taxable income to be offset by the credit. It does not result in any cash to the Borrower, and does not in any way offset or reduce the obligation of the Sponsor/equity investors to make a substantial equity investment in the project. Nor does DOE take the potential receipt of the credit into account in any way in its credit analysis, or rely on its receipt for any future performance.

We have, in fact, already issued conditional commitments for projects which have qualified for 48c credits. In no case, does the DOE analysis rely on the 48c in determining the prospect of repayment or the capability of the various parties to fulfill their obligations.

Similarly, a number of innovative technology applicants that are already well along in our process have also qualified for 48C tax credits. We would like to avoid inconsistent treatment of potential candidates for loan guarantees based on technology or timing of the solicitation.

We all agree that we should not permit double dipping from both the 48C tax credit and the loan guarantee program. However, there is a less blanket approach that achieves these ends without frustrating program goals with an outright ban on applicants who have qualified for the tax credit.



Consistent with Title XVII, DOE policy and the Final Rule applicable to Section 1703, the draft Commercial Technology Manufacturing Solicitation requires that the face value of the debt guaranteed by DOE be limited to no more than eighty percent of total eligible project costs. We would propose applying the 80% cap to the sum of the amount of the loan guarantee PLUS the value of the expected 48C tax credit. For this purpose, applicants would be required to provide DOE with an acceptable computation of the value of the expected 48C tax credit. In this way, we eliminate the VALUE of the double dip, while not prohibiting projects that qualify from receiving the tax credit.


We considered numerous other options on how to address this issue, including: (1) reducing the amount of the loan guarantee that DOE would otherwise be prepared to offer at financial close by the net present value of the amount of the tax credit benefits; and (2) requiring the borrower (or the project sponsor(s) - either directly or by injecting equity into the borrower) to make a mandatory prepayment equal to the amount of 48C tax benefits received in any year during the term of the loan guarantee. Neither is as simple, efficient or cost effective as the approach we are suggesting. Importantly, what we are proposing has the added advantage of being easy to calculate with little room for confusion.

If you and Peter are comfortable with this, we are ready (and eager!) to launch.

Thanks,

Jonathan

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585



**From:** jim McCrea <jimmccrea@[REDACTED]>  
**Sent:** Friday, December 10, 2010 5:18 AM (GMT)  
**To:** 'Silver, Jonathan' <[REDACTED]@hq.doe.gov>  
**Subject:** RE: OMB Policy Decision on Recovery Rates

---

Yes, that is the one I was thinking of.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
Sent: Friday, December 10, 2010 12:16 AM  
To: jimmccrea@[REDACTED]  
Subject: Re: OMB Policy Decision on Recovery Rates

With the french ambassador.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]@hq.doe.gov

----- Original Message -----

From: jim McCrea <jimmccrea@[REDACTED]>  
To: Silver, Jonathan  
Sent: Fri Dec 10 00:14:17 2010  
Subject: RE: OMB Policy Decision on Recovery Rates

Great. I can fill you in at your convenience.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
Sent: Friday, December 10, 2010 12:12 AM  
To: jimmccrea@[REDACTED]  
Subject: Re: OMB Policy Decision on Recovery Rates

3:30  
Jonathan Silver  
Executive Director

Loan Programs  
U.S. Department of Energy

[REDACTED]@hq.doe.gov

----- Original Message -----

From: jim McCrea <jimmccrea@[REDACTED]>  
To: Silver, Jonathan  
Sent: Fri Dec 10 00:05:18 2010  
Subject: RE: OMB Policy Decision on Recovery Rates

We should talk about the interagency review promised in advance of a meeting that I believe you have scheduled for tomorrow. It is possible that you will be asked about it and I have some thoughts for you on the meeting in general. Don't know what time the meeting is but I do need to talk with you briefly in advance of it.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
Sent: Thursday, December 09, 2010 11:38 PM  
To: Hurlbut, Brandon  
Subject: Fw: OMB Policy Decision on Recovery Rates

One more thing.

It also doesn't mean anything. These guys don't decide real policy. If we decide we care -and at this point, its not my focus- I assume we can always engage at the low, chf, rouse level.

We should also see what happens with the cbo analysis. But, do they think this hurts us in some way? Its a kind of childishness I just haven't seen in my professional life in many years.

One other thing. Since aldy personally promised the cdf management group that he would lead an inter-agency review of this topic, we should tell him that he should be the one to call and deliver the news. They will undoubtedly ask for omb's analysis...and we know there isn't one.

Who would have thought there would be such slavish devotion to an arbitrary number? It would be funny if it weren't tragic.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]@hq.doe.gov

----- Original Message -----

From: Barwell, Owen  
To: Silver, Jonathan  
Sent: Thu Dec 09 22:11:41 2010  
Subject: OMB Policy Decision on Recovery Rates

Jonathan

I did not have the chance to de-brief a short call I received from Rick Mertens, around 5pm today.

He, and Aldy, Mas, and Nabors had met (not sure when) and made a policy decision on recovery rates (the term "policy decision" seemed to have some formal significance, though I am not sure what). We had conveyed an alternative approach to recovery rates

JM\_00059392

beyond the 55% with notching. They believed there were issues with our proposal (though as I did not have our proposal, I could not argue one way or another) such that it was not any better than status quo. The current method would therefore prevail for 2012 budget purposes.

However, Rick did accept that the 55% with notching method was not perfect, and he would like to see this method improved. His suggestion was to understand the characteristics and attributes of what kind of project would lead to a recovery rate of 55%. I.e. try to improve the underpinning behind what has started out and remains an arbitrary number. He thought this would avoid having to re-litigate on the recovery rate and notching as projects were presented to OMB. I offered that this would only work (amongst other things) if there was an openness to our justification for any notching. He thought OMB's approach would help in this regard.

I asked that I run this past you, as I was not familiar with what we had proposed and its history (though I guess the driver was Constellation).

How would you like to play it? OMB's approach seems logical, but without a little more of the background, I do not know how we come out of this proposal. At the very least, there seems to be a willingness to improve the method, as well as some wriggle room for puts and takes.

Happy to lead.

Cheers, Owen

Owen F. Barwell  
Chief Operating Officer, Loan Programs Office U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

**From:** Julie Stewart <stewartjulie@[REDACTED]>  
**Sent:** Friday, November 19, 2010 3:31 PM (GMT)  
**To:** jim McCrea <jimmccrea@[REDACTED]>  
**Subject:** Re: SWIP- Fast Track

---

Wow.. discouraging for the SIOs/IOs and staff. ☐ And I'm trying not to get discouraged, by remembering the mantra "am just a consultant".....

Guess that is one way to get what you want.... the only transactions that will get done will be the grants which was advocated as the best program, even though it does not meet the goals of bringing innovative energy products to the market. ☐ Someone will be able to make them selves look like the hero, that they are brilliant etc.☐

SIGH!!!

Julie Stewart | Contractor - Loan Guarantee Program Office  
United States Department of Energy  
[REDACTED] | [stewartjulie@\[REDACTED\]](mailto:stewartjulie@[REDACTED])

On 11/19/2010 9:16 AM, jim McCrea wrote:

Basically, they are going to fight us on transactions if they don't meet these criteria. ☐ That means that not much is likely to come through the process. ☐ We will now declare victory at Credit Committee approval, support the interagency process as best we can, hope for an outcome but not count on it and then, when someone needs a photo op or the applicant screams loud enough, an occasional transaction will be spit out into a conditional commitment. ☐ I know this is a harsh comment but it is also realistic unfortunately.

☐  
Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

☐  
**From:** Julie Stewart [[mailto:stewartjulie@\[REDACTED\]](mailto:stewartjulie@[REDACTED])]  
**Sent:** Friday, November 19, 2010 9:02 AM  
**To:** jim McCrea  
**Subject:** Re: SWIP- Fast Track

☐  
So are you saying that Treasury and the WH is now saying if the SNI or the IRR is within their fast track limits, the deal is dead?☐ I'm shaking my head in disbelief.

<!--[if !supportLineBreakNewLine]-->  
<!--[endif]-->

Julie Stewart | Contractor - Loan Guarantee Program Office  
United States Department of Energy  
[REDACTED] | [stewartjulie@\[REDACTED\]](mailto:stewartjulie@[REDACTED])

On 11/19/2010 7:33 AM, jim McCrea wrote:

Well, Treasury and the WH has set the screen so tight for fast track that almost none of the transactions we have looked at to date would get through so it is useless. ☐ Then, on top of that, they insist that the same criteria will be the criteria by which they judge transactions. ☐ Don't expect to see many conditional commitments coming soon!

☐  
Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC



☐

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**From:** Heimert, Kimberly [mailto: [REDACTED]@hq.doe.gov]

**Sent:** Friday, November 19, 2010 12:30 AM

**To:** 'jimmccrea@[REDACTED]'; 'StewartJulie@[REDACTED]'; 'rsass@[REDACTED]'

**Subject:** Re: SWIP- Fast Track

☐

Actually... I did bring up the concept of fast track... Forgetting that it was only intended to help get to conditional commitment, not closing. I guess I was hoping that their second bite at the apple would be as efficient in that instance as their first is supposed to be.

K  
☐

---

**From:** jim McCrea <jimmccrea@[REDACTED]>

**To:** Heimert, Kimberly; Julie Stewart <StewartJulie@[REDACTED]>; Renee Sass <rsass@[REDACTED]>

**Sent:** Thu Nov 18 23:32:11 2010

**Subject:** RE: SWIP- Fast Track

Kimberly --

☐

Exactly and I know full well that you have been. ☐ I did not think that the idea that you could take weeks off the process was coming from you given your experience!!!!

☐  
Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC



☐

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**From:** McCrea, Jim [mailto: [REDACTED]@Hq.Doe.Gov]

**Sent:** Thursday, November 18, 2010 6:32 PM

**To:** jimmccrea@[REDACTED]

**Subject:** FW: SWIP- Fast Track

☐

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From: Heimert, Kimberly  
Sent: Thursday, November 18, 2010 6:31:37 PM  
To: 'stewartjulie@[REDACTED]'; Stamos, John  
Cc: 'sashulman@[REDACTED]'; 'rmele2@[REDACTED]'; Hammel-Smith, Carol,  
Montgomery, Joseph; McCrea, Jim; 'rsass@[REDACTED]';  
'grazianoj@[REDACTED]'; Mele, Raymond  
Subject: Re: SWIP- Fast Track  
Auto forwarded by a Rule  
I have been through the closing process twice, so know the process in detail...

---

**From:** Julie Stewart <stewartjulie@[REDACTED]>  
**To:** Stamos, John  
**Cc:** Heimert, Kimberly; Stephen Shulman <sashulman@[REDACTED]>; 'Ray Mele' <rmele2@[REDACTED]>; Hammel-Smith, Carol; Montgomery, Joseph; McCrea, Jim; Renee Sass <rsass@[REDACTED]>; 'Graziano, Joseph A.' <grazianoj@[REDACTED]>; Mele, Raymond  
**Sent:** Thu Nov 18 18:27:15 2010  
**Subject:** Re: SWIP- Fast Track

All -

I checked with Jim and the fast track process is only for those transaction entering into the approval process to get to conditional commitment. It can not be used for closing transactions. As those that have gone through a closing already can tell us, it is quite detailed with OMB and FFB (down to the penny type of detail). Any questions, please let Renee or me know.

Thanks-

Julie

<!--[if !supportLineBreakNewLine]-->

<!--[endif]-->

Julie Stewart | Contractor - Loan Guarantee Program Office  
United States Department of Energy  
[REDACTED] | stewartjulie@[REDACTED]

On 11/18/2010 9:47 AM, Stamos, John wrote:

When: Thursday, November 18, 2010 10:00 AM-10:30 AM (GMT-05:00) Eastern Time (US & Canada).  
Where: 48-127 (301-903-9177)

Note: The GMT offset above does not reflect daylight saving time adjustments.

I have booked the room/phone number for 10:00 - 11:00 each Thursday, in case we have to go beyond 10:30.

We will use the attached calendar for a discussion on the timing for getting to closure on SWIP-S.

**From:** Julie Stewart <stewartjulie@[REDACTED]>  
**Sent:** Wednesday, June 23, 2010 7:24 PM (GMT)  
**To:** Fridell, Monique <[REDACTED]@hq.doe.gov>; Renee Sass <reneesass@[REDACTED]>; Jim McCrea <jimmccrea@[REDACTED]>  
**Cc:** Leong, Alvin <[REDACTED]@hq.doe.gov>  
**Subject:** Re: Merchant "primer" presentation question

---

Monique

There currently is nothing scheduled but if and when there is it is anticipated to be with the Seconds. Jim can elaborate further on any expected timing.

Renee and I have been working on a PPT for this which we hope to have out to the larger group shortly.

Hopefully this time that vacation of yours does happen.

Julie

-----Original Message-----

From: Fridell, Monique  
To: Renee Sass  
To: Julie Stewart  
To: Jim McCrea  
Cc: Leong, Alvin  
Subject: Merchant "primer" presentation question  
Sent: Jun 23, 2010 3:03 PM

Credit Team,

Do you have a sense of when/to whom we are supposed to make this presentation on merchant plants/PJM, per R Edwards' request?

I only ask because I'll be out between 6/30 and 7/8, so I'm not sure if we would have to do the presentation before I'm out or not until deal is given political green light to be presented to CRB (date unknown at this writing).

Jim, basically, do I need to worry about this now or not?

Monique

Julie Stewart  
Credit Consultant  
[REDACTED]  
E-mail: stewartjulie@[REDACTED]



**From:** McCrea, Jim (CONTR) <[REDACTED]@Hq.Doe.Gov>  
**Sent:** Tuesday, August 23, 2011 5:10 PM (GMT)  
**To:** jimccrea@[REDACTED]  
**Subject:** FW: Sage

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From: Fridell, Monique  
Sent: Tuesday, August 23, 2011 1:09:49 PM  
To: Shikany, Ann; Winters, Matthew; McCrea, Jim (CONTR); Crowell, Brad  
Subject: RE: Sage  
Auto forwarded by a Rule

This is shocking news to me. The project team has been killing itself for weeks to get this deal into the credit approval process. The client was informed at 10 am today that we were launching into the credit approval process.

It should be noted that it is due to Sage's lobbying efforts that LGP has \$170 million available for 1703.

Please advise what I am supposed to tell the client and what J. Silver should advise Senator Franken at 1:30 pm when they speak.

-----Original Message-----  
From: Shikany, Ann  
Sent: Tuesday, August 23, 2011 12:50 PM  
To: Crowell, Brad; Winters, Matthew; McCrea, Jim (CONTR)  
Cc: Fridell, Monique  
Subject: RE: Sage

I'm looping in the SIO for the project, Monique.

-----Original Message-----  
From: Crowell, Brad  
Sent: Tuesday, August 23, 2011 12:45 PM  
To: Winters, Matthew; McCrea, Jim (CONTR)  
Cc: Shikany, Ann  
Subject: RE: Sage

If we've told Sage otherwise, then we need to correct that asap.

-----Original Message-----  
From: Winters, Matthew  
Sent: Tuesday, August 23, 2011 12:38 PM  
To: McCrea, Jim (CONTR)  
Cc: Shikany, Ann; Crowell, Brad  
Subject: Sage

Please do NOT send Sage into the interagency review process.

We are NOT sending 1703 projects over for review - as we have not yet identified the criteria that will be used to select them.

**From:** James C McCrea <jimmccrea@[REDACTED]>  
**Sent:** Tuesday, September 1, 2009 12:33 PM (GMT)  
**To:** 'Don Bennett' <benncons@[REDACTED]>; 'Roger McDaniel' <rogermdaniel@[REDACTED]>  
**Subject:** RE: etc warranty

---

That is not good but I have wondered about ETC. I think that we will need to address it in the term sheet. We may need to add something that is a place holder that flags that further due diligence is being done. One solution is that if they are too small for the size of the warranty, and I suspect that is what we will conclude, that we may need to require AREVA backstopping if ETC does not put up an LOC to support its warranty. I await your further analysis.

Re the rushed process, I agree. What makes it far worse is that we are doing our analysis, preparing the term sheet etc. (not ETC!!) before the project has really gelled. In the commercial finance world, this transaction would not be ready for real financing discussion/term sheet preparation for at least a year.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

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**From:** Don Bennett [mailto:benncons@[REDACTED]]  
**Sent:** Tuesday, September 01, 2009 8:11 AM  
**To:** James C. McCrea; Roger McDaniel  
**Subject:** etc warranty

After spending most of yesterday analyzing and thinking about ETC, I think I'm more concerned, rather than less so.

We need to find out exactly the name of the ETC entity that intends to provide the warranty. In the original application form, the term ETC and Enrichment Technology Company LLC both are used, but I saw nothing of a US-based subsidiary.

You'll see why I'm concerned a little later with my ETC credit write-up (based solely on a review of the past three annual reports, which is the only info that I've been able to uncover so far). ETC is not a large entity in itself, and seems to operate through 6 geographically separated LLC's, one of which is US. By not large - I mean 95 MM euros of equity, 16 MM euros net income, 210 MM euros of property and equipment, all at consolidated level. Subsidiary info is not divulged. I think we'll want to think about the size of the warranty compared to the financial capability of the ETC holding company, as well as the US subsidiary.

I'm writing up the credit report this morning, will have questions directly related to that, as well as some thoughts on issues related to the warranty and our term sheet. (This strikes me as something that is worthy of discussion in a term sheet - I hope it's not too late to consider points like this. If it's a problem, I would say it's another symptom of a process that's overly and artificially rushed.)

So treat this as an early alert, and let me know if you have any further insights, or anything additional that I should be thinking about in this regard.

Don

**From:** Toennissen, Annika (CONTR) <[REDACTED]@hq.doe.gov>  
**Sent:** Monday, April 2, 2012 8:32 PM (GMT)  
**To:** 'Jim McCrea' <jimmccrea@[REDACTED]>  
**Subject:** RE: QFRs for Secretary Chu's March 13, 2012 SENR Committee Hearing

---

Got it. Thanks Jim! I'm just swimming in these right now. Appreciate the feedback.

---

**From:** Jim McCrea [mailto:jimmccrea@[REDACTED]]  
**Sent:** Monday, April 02, 2012 4:30 PM  
**To:** Toennissen, Annika (CONTR)  
**Cc:** Wright, Morgan  
**Subject:** RE: QFRs for Secretary Chu's March 13, 2012 SENR Committee Hearing

Annika –

Not sure I have the answers to these. I don't know what S1 had in mind with respect to a self paid program that would also stimulate the most innovative projects. Personally, I am a huge fan of self pay and not a fan of fully appropriated credit subsidy cost as making the Sponsor responsible for some level of credit subsidy cost keeps them focused on the risk that they are trying to have the DOE bear as it feeds back to a credit subsidy cost. Absent that feedback loop, some applicants may be somewhat indifferent to the risks that they are seeking to have the USG take such as from higher leverage, lower debt service coverage, longer tenors, etc. However, I don't speak for the DOE on this topic and the views expressed are solely mine as an interested observer.

I would note that the reference to \$6B of appropriated credit subsidy may have been correct at the outset of 1705 (not sure) but a chunk got pulled to fund Cash For Clunkers and when all was said and done, as I recall we were working with about 2.25 or 2.5B of appropriated credit subsidy for 1705. I don't think that the \$6B reference was aimed at ATVM but I could be wrong. In responding, we might want to nicely but the facts on the table. Morgan would have the details.

Re the Bilbray questions, I don't know much if anything about the criteria that we will be using to select among the applicants for the \$170MM appropriate credit subsidy. Morgan, who has been involved in the discussions is likely to have a better sense of how to respond to those questions.

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

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**From:** Toennissen, Annika (CONTR) [mailto:[REDACTED]@hq.doe.gov]  
**Sent:** Monday, April 02, 2012 4:07 PM  
**To:** 'Jim McCrea'  
**Cc:** Wright, Morgan  
**Subject:** RE: QFRs for Secretary Chu's March 13, 2012 SENR Committee Hearing

Jim,

Any input you can give on these would also be greatly appreciated. I'm not sure if they are within your purview. I understand that I'm throwing a lot your way so if you respond by end of day Wednesday, I'd

appreciate it. Let me know if you can't provide input on any of these.

Senator Murkowski

Q4. At a clean-energy forum hosted by the *Washington Post* last year, you stated that "we can design a program that is actually self-paid and still stimulate the most innovative industries." I was particularly interested in your reference to a self-paid program, which is not what the stimulus bill's Section 1705 loan guarantees relied upon. As you know, those loan guarantee applicants were granted access to \$6 billion appropriated to cover their credit subsidy costs.

Q4a. In hindsight, do you believe that credit subsidy costs should be self-paid?

A4a. DOE does not believe that these projects would have moved forward as quickly, and many would not have moved forward at all, without loan guarantees and credit subsidies. Several factors, including the long term nature of the financing required, the size of projects, the limited capacity of the credit markets, and the economic terms on which financing, if available at all, would have been provided limited these projects' ability to secure private capital. That result would have been inconsistent with the Congressional intent of ARRA.

Q4b. Do you think it was wise to appropriate \$6 billion in the stimulus to pay for applicants' credit subsidy costs?

A4b.

Q4c. How would you design a self-paid loan guarantee program?

A4c.

The Honorable Brian Bilbray

Q2. With limited funds available, does DOE anticipate prioritizing applicants who are willing to forego credit subsidies in order to maximize the total amount of loan subsidies?

A2.

Q3. In the independent consultant's report, he identified a category of loans which were inherently low risk. Will the Department use category risk (e.g. projects backed with a PPA) level as a criteria to help expedite applications? What other criteria will be considered?

A3.

---


**From:** Jim McCrea [mailto:jimmccrea@ ]  
**Sent:** Monday, April 02, 2012 10:52 AM  
**To:** Toenniessen, Annika (CONTR)  
**Cc:** Wright, Morgan  
**Subject:** RE: QFRs for Secretary Chu's March 13, 2012 SENR Committee Hearing

I was planning to do total 1803/total 1705 project cost (not DOE loan).

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC



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**From:** Toennissen, Annika (CONTR) [mailto: [REDACTED]@hq.doe.gov]  
**Sent:** Monday, April 02, 2012 10:49 AM  
**To:** 'Jim McCrea'  
**Cc:** Wright, Morgan  
**Subject:** RE: QFRs for Secretary Chu's March 13, 2012 SENR Committee Hearing

Thanks, Jim,

I copied Morgan here. I think the approach we should take is to answer what we can from a DOE level. For example, we can't answer for the states and should just say that. For the last question, traditionally we do not say what the project cost is for specific projects so you can just provide the average across all 1705 projects.

Thanks,  
Annika

---


**From:** Jim McCrea [mailto:jimmccrea@ [REDACTED]]  
**Sent:** Monday, April 02, 2012 10:33 AM  
**To:** Toennissen, Annika (CONTR)  
**Subject:** RE: QFRs for Secretary Chu's March 13, 2012 SENR Committee Hearing

No problem. I can pull that together, likely tomorrow. See some comments embedded below. You might want to check with Morgan on these points.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC



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**From:** Toennissen, Annika (CONTR) [mailto: [REDACTED]@hq.doe.gov]  
**Sent:** Monday, April 02, 2012 10:26 AM  
**To:** 'jim McCrea'  
**Subject:** FW: QFRs for Secretary Chu's March 13, 2012 SENR Committee Hearing  
**Importance:** High

Hi Jim,

Hope you're doing well. We're working on a slew of QFRs right now and Morgan thought you could answer the

following coming from Murkowski. Let me know otherwise. These are technically due Friday and we need to get them moving through concurrence. It would be great if you could answer them by end of day tomorrow.

Thanks,  
Annika

#### 8) ADDITIONAL SUBSIDY

According to a memo written by administration officials Carol Browner, Ron Klain, and Larry Summers in October 2010, "Project sponsors for all power generation projects under the 1705 program have indicated that they intend to claim a 1603 grant once they enter into service."

How many projects ultimately selected by DOE for Section 1705 loan guarantees have also claimed a 1603 grant (or will be eligible to do so before the 'Placed in Service' and 'Begin Construction' deadlines of October 1, 2012)?

No issue. Call look at the project materials and pull this together.

What is the total government subsidy (federal and state) for Section 1705 loan recipients, including 1603 grants, in dollars? Please provide this on a project-by-project basis and as an average across all projects.

Can provide expected 1603 per DOE records. Don't have good records on state level subsidies and don't know how to get that.

What is the total government subsidy for Section 1705 loan recipients, including 1603 grants, as a percentage of project cost? Please provide this on a project-by-project basis and as an average across all projects.

Can provide for 1705. Don't know what they mean for "total government subsidy" as this can sometimes include depreciation, etc.

---

**From:** Parker, Tanisha  
**Sent:** Wednesday, March 28, 2012 7:18 PM  
**To:** Toenniessen, Annika (CONTR); Wright, Morgan  
**Cc:** Owen, Lil; Green, Angela; Crowell, Brad; Secreto, James  
**Subject:** FW: QFRs for Secretary Chu's March 13, 2012 SENR Committee Hearing  
**Importance:** High

The due date is noon, Friday, April 6.

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**From:** Parker, Tanisha  
**Sent:** Wednesday, March 28, 2012 7:03 PM  
**To:** Toenniessen, Annika (CONTR); Wright, Morgan  
**Cc:** Owen, Lil; Green, Angela; Crowell, Brad; Secreto, James  
**Subject:** QFRs for Secretary Chu's March 13, 2012 SENR Committee Hearing  
**Importance:** High

Attached are questions for your office's response from the above hearing.

Your office is responsible for drafting a response, obtaining the proper principal officer signoff (within your office), and for coordinating appropriate concurrences with DOE staff and program offices. Concurrences must be obtained from CI, GC, PI and CF, and any other office that is mentioned or that oversees a program activity that is referenced in a QFR response. All concurrences must be listed on the concurrence trailer and obtained prior to submission to CI-see the attached sample. Note: If the concurrence requirements are not met, the QFRs will be returned to LPO for concurrence completion.

If an assigned question does not fall within the purview of your office, please inform me immediately via email and suggest the appropriate office for reassignment.

Please provide your responses to me w/cc to Lil and Angela by noon, Wednesday, March 28, 2012.

Thanks in advance, Tanisha (6-1562)

Attachments:

1. QFRs in MS Word for copying
2. Sample Format for QFRS

**From:** boakley@ [REDACTED]  
**Sent:** Tuesday, January 11, 2011 1:57 PM (GMT)  
**To:** jim McCrea <jimmccrea@ [REDACTED]>  
**Cc:** rsass@ [REDACTED]  
**Subject:** RE: Draft Powerpoint Presentation

---

Thanks. We'll incorporate / address the comments. Given the number of solar PV firms in the system, it would be good to have some more selective criteria. Stion is far worse and yet it's still moving along.

-----Original Message-----

From: jim McCrea [mailto:jimmccrea@ [REDACTED]]  
Sent: Monday, January 10, 2011 11:36 PM  
To: boakley@ [REDACTED]  
Cc: rsass@ [REDACTED]  
Subject: RE: Draft Powerpoint Presentation

I ran through this, made some changes in red and added a bunch of comments.

This is a completely uninspiring transaction. There is just not a compelling story on it and nothing in the presentation gives you a sense that this is real as opposed to completely wishful thinking. If I were on Credit Committee, no way would I vote for this one. I don't know what to do about that but the more I see of this space, the less I like it and I hated it to begin with!!!

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: boakley@scullycapital.com [mailto:boakley@ [REDACTED]]  
Sent: Monday, January 10, 2011 9:10 PM  
To: jim McCrea (jimmccrea@ [REDACTED])  
Cc: rsass@ [REDACTED]  
Subject: FW: Draft Powerpoint Presentation

Jim,

Here is the latest powerpoint. Generally, we're in good shape and will have a draft final paper to you tomorrow. Unless you see something that alarms you, we should be okay for Wednesday.

Regards,  
Brian

-----Original Message-----

From: Gheri, Emilio [mailto: [REDACTED]@hq.doe.gov]  
Sent: Monday, January 10, 2011 7:31 PM  
To: [REDACTED]; Leong, Alvin; Stephens, Scott; 'Mike Ratliff'; [REDACTED]; Renee Sass; Chou, Matthew  
Subject: RE: Draft Powerpoint Presentation

Renee, Brian,

Find attached my first set of comments. I will comb the PPT again and provide you with additional comments if any. thanks

Regards,

Emilio J. Gheri

Senior Investment Officer  
Loan Guarantee Program  
US Department of Energy

JM\_00320978



[REDACTED]  
Email: [REDACTED]@hq.doc.gov

-----Original Message-----

From: boakley [mailto:boakley@ [REDACTED]]  
Sent: Monday, January 10, 2011 5:18 PM  
To: Leong, Alvin; Gherst, Emilio; Stephens, Scott; 'Mike Ratliff';  
[REDACTED] Renee Sass  
Subject: Draft Powerpoint Presentation

All,

Please find attached the draft consolidated presentation for Solopower.  
There are a few bracketed items that remain to be addressed.

For editing purposes, I suggest highlighting changes in a different color  
ink. I can consolidate comments on my end.

Thanks,  
Brian

**From:** McCrea, Jim <[REDACTED]@Hq.Doc.Gov>  
**Sent:** Thursday, July 1, 2010 8:47 PM (GMT)  
**To:** jimccrea@[REDACTED]  
**Subject:** FW: can u help answer?

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**From:** Westerheim, Ove  
**Sent:** Thursday, July 01, 2010 4:47:22 PM  
**To:** Hurlbut, Brandon; McCrea, Jim; Silver, Jonathan; Arigbede, Kimberley; Richardson, Susan  
**Cc:** Otness, Chris  
**Subject:** Re: can u help answer?  
Auto forwarded by a Rule  
Yes, on Monday.  
-Ove

---

**From:** Hurlbut, Brandon  
**To:** Westerheim, Ove; McCrea, Jim; Silver, Jonathan; Arigbede, Kimberley; Richardson, Susan  
**Cc:** Otness, Chris  
**Sent:** Thu Jul 01 16:35:15 2010  
**Subject:** RE: can u help answer?

Have we heard from Treasury?

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**From:** Westerheim, Ove  
**Sent:** Thursday, July 01, 2010 4:24 PM  
**To:** McCrea, Jim; Silver, Jonathan; Hurlbut, Brandon; Arigbede, Kimberley; Richardson, Susan  
**Cc:** Otness, Chris  
**Subject:** RE: can u help answer?

Jim beat me to the punch, but that is the case. The estimate reflected the finite nature of the orders for the receivers to complete the Solana project only.

-Ove

---

**From:** McCrea, Jim  
**Sent:** Thursday, July 01, 2010 4:19 PM  
**To:** Silver, Jonathan; Westerheim, Ove; Hurlbut, Brandon; Arigbede, Kimberley; Richardson, Susan  
**Cc:** Otness, Chris  
**Subject:** RE: can u help answer?

The jobs are permanent if the market for the product is there but Abengoa Solana itself is not an on-going market. Presumably, follow on projects from Abengoa and others will make use of the production capacity allowing the jobs to be retained. Further, the existence of the production capacity and the in-place, trained workforce makes it easier and cheaper to sell future capacity assisting in the process of making the jobs long term and permanent. At the same time, the Solana project helps demonstrate the technology which also increases demand having the same impact on the manufacturing jobs.

Jim

James C. McCrea  
Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

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**From:** Silver, Jonathan  
**Sent:** Thursday, July 01, 2010 4:07 PM  
**To:** Westerheim, Ove; Hurlbut, Brandon; Arigbede, Kimberley; McCrea, Jim; Richardson, Susan  
**Cc:** Otness, Chris  
**Subject:** Re: can u help answer?

This raises more questions than it answers. What happens after that year? The question was about permanent jobs.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

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**From:** Westerheim, Ove  
**To:** Hurlbut, Brandon; Arigbede, Kimberley; McCrea, Jim; Richardson, Susan  
**Cc:** Otness, Chris; Silver, Jonathan  
**Sent:** Thu Jul 01 14:33:40 2010  
**Subject:** RE: can u help answer?

Further to the follow on question from this morning, for the Schott receiver plant, the Solana project will employ approximately 200 people for about one year to manufacture the receiver tubes necessary for the Abengoa project.

Hope this helps.

Regards,  
Ove

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**From:** Hurlbut, Brandon  
**Sent:** Thursday, July 01, 2010 9:19 AM  
**To:** Westerheim, Ove; Arigbede, Kimberley  
**Cc:** Otness, Chris  
**Subject:** RE: can u help answer?

Great – thanks!

---

**From:** Westerheim, Ove  
**Sent:** Thursday, July 01, 2010 8:49 AM  
**To:** Hurlbut, Brandon; Arigbede, Kimberley  
**Cc:** Otness, Chris  
**Subject:** Re: can u help answer?

Both figures are per annum. It is 70,000 homes per year and 475,000 tons of greenhouse gases avoided per year.

Let us know if you need anything else.

Regards,

Ove

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**From:** Hurlbut, Brandon  
**To:** Westerheim, Ove; Arigbede, Kimberley  
**Cc:** Otness, Chris  
**Sent:** Thu Jul 01 08:42:00 2010  
**Subject:** FW: can u help answer?

Can you help me answer the 2 questions below for the President's speech?

---

**From:** Oxhorn, Elizabeth A. [mailto:██████████@ovp.eop.gov]  
**Sent:** Wednesday, June 30, 2010 7:19 PM  
**To:** Hurlbut, Brandon  
**Subject:** can u help answer?

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**From:** Keenan, Cody  
**Sent:** Wednesday, June 30, 2010 7:18 PM  
**To:** Oxhorn, Elizabeth A.  
**Subject:** RE: summary

Hey, one thing on this – and an answer tomorrow is totally fine – do you know the timeframe for these numbers? 70,000 homes per year? 400,000 tons over a decade? Etc.

Once completed, Solana will have a capacity of 280 megawatts and is expected to provide clean, green electricity to power 70,000 homes, while avoiding over 400,000 tons of greenhouse gases.

JM\_00204545

**From:** jim McCrea <jimmccrea@[REDACTED]>  
**Sent:** Wednesday, December 1, 2010 1:37 AM (GMT)  
**To:** 'Julie Stewart' <stewartjulie@[REDACTED]>  
**Cc:** 'Renee Sass' <rsass@[REDACTED]>  
**Subject:** RE: STP update

---

I heard at dinner that Terry had informed Paul this evening that Crane is also trying to see the VP.

We also chatted about contingent equity and I agree with your position. As Paul and I discussed, it is not really a liquidity issue. Rather it is a credit issue given the weak credit. I told him that we had tried real hard to get an LOC for Darling (1/2 of the Sponsor group in Diamond Green Diesel) and could only get a segregated account for 27% of the equity contribution. In the absence of a LOC, I have told everyone that I will simply adjust (the work I use if "whack") the credit subsidy cost. In DGD, that has no impact on the Sponsor but I told Paul that I have no issue making a similar adjustment to NRG!!!

Very helpful summary except t=for the part that seems to have somehow been translated into Greek or Russian in a couple of paragraphs!

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]

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**From:** Julie Stewart [mailto:stewartjulie@[REDACTED]]  
**Sent:** Tuesday, November 30, 2010 8:11 PM  
**To:** 'James C McCrea'  
**Cc:** Renee Sass  
**Subject:** STP update

Jim -

Renee and I wanted to give you an update on STP and would like to set up a call for tomorrow to discuss. First, we understand that David Crane of NRG is coming in to meet with Jonathan regarding STP next Monday. The deal team is in the middle of the negotiations with NRG regarding the contingent equity requirements (as a result of the new EPC arrangements) and they will be preparing a briefing for Jonathan. Apparently, NRG is coming in so that they "can avoid the problems of Unistar on the Credit Subsidy Process" and there is a concern that Crane is also here to negotiate key outstanding points in the Term Sheet (which are discussed below).

Regarding the negotiations, as we see it, there are currently two key issues.

- the amount of contingent equity ("Overrun Equity Commitment") required; and
- the timing of/security for that commitment and for the Debt Service Reserve (\$800 million, 12 months).

Amount

The original contingent equity was a 'to be negotiated' amount of up to \$500 million. We looked at it as \$500 million to fill any holes in the EPC at Closing, NRG looked at it as something they would have tried to

otiate to zero as the final pricing of the EPC was locked down.

DOE's advisors have very different opinions of the new EPC arrangements. The lawyers think it is worse than the original EPC, the IE thinks it is okay. Thus – their views regarding the required amount of contingent equity are not on the same page.

ΔΟΕ σταρτεδ της νεγοτιασιου βη ασκινγ φορ 31.5 βιλλιον, ωριχη οιασ βασει ον της τοταλ ρεδυχτιον ιν της λιμτ οφ λιαβιλιτυ φορμ της οριγιναλ ΕΠΧ ανδ νοτ τακινγ ιντο αχχουντ ανη στηρη φαχτορσ ιν της νεω ΕΠΧ. Τηση ημασε σιχυε λοουρεδ τηερ ασκ το 31 βιλλιον βασει ον θυαλιτατισε ρεασιον λικε Σηαωσ ρελυτατιον. The rationale for the \$1 billion has not been fully laid out in a way which we think is fully supportable and, obviously, gets influenced by the various negotiating positions of NRG.

Our Credit message to the team has been - we are not agreeing or disagreeing to \$1 billion, but we have communicated several times that the justification for \$1 billion has to be stronger.

#### Timing/security

Τη φερστ παρτ οφ τηισ ισσυε αδδρεσσεσ της φαχτ τηατ ιν μοστ χασεσ, της φυνδινγ οφ ανη χοστ σπερρυοντ ωιλλ βε λατερ (νοτ εαρλιερ) ιν της χονστρυκτιον προχεσσ ανδ αλσο τηατ της Δεβτ Σερβιτς Ρεσερβεσ ισινετ νεεδεδ υντιλ Χομπλετιον. However, while we agree that the potential funding of these amounts is not required until later in the process, we do need an assurance that these funds will be there when needed (since 50% of the equity will be NRG credit, which is BB-). As with any equity obligation, we believe there needs to be an investment grade guarantee or LC in place.

The deal team is trying to find solutions such that the \$1.8 billion (\$1 billion of contingent equity and \$800 million of DSR) does not all have to be in place at Financial Close, because the Sponsor is saying that it will be too costly for them and ruins their returns if it is required to be in place at Financial Close. We are not sure where we will come out between the deal team, NRG and what credit is comfortable with. We are trying to work with them and be creative, but today told them that we believe that at Financial Close, there needs to be security of at least \$1 billion in place to cover these two obligations (and that the balance can not go below \$800 million). A BB- credit is not good enough to secure this obligation. An LC, cash or an investment grade guarantee is needed. If this level of support is not in place, then the Risk/Recovery of the Analysis of the transaction will be impacted significantly.

We reminded the deal team that they should negotiate the best deal they can, and then bring it back to Credit to rate. However, we are all trying to keep the deal as strong as possible, so that the current rating of BB+ 60/65 remains flat or goes up, but does not go down. As I explained, if we don't have LC's for NRG's contingent equity commitments, we will then have to look at those obligations as BB-. Theoretically, the risk of a higher credit subsidy rate should influence the Sponsor to want to strengthen the deal, not worsen the deal.

Overall, we just want you to be informed of the issues as they currently stand. We believe that on the timing issue, requiring an LC or Investment Grade security for at least \$1 billion is very justifiable; however, the overall rationale for the \$1 billion of contingent equity may need more work (both to show Credit that it is enough and to show NRG that it is not too much).

Talk to you tomorrow.

Renee and Julie

--  
Julie Stewart | Contractor - Loan Guarantee Program Office  
United States Department of Energy

JM\_00061651

[REDACTED] | stewartjulie@ [REDACTED]

JM\_00061652

**From:** James C McCrea <[REDACTED]>  
**Sent:** Thursday, July 15, 2010 3:10 AM (GMT)  
**To:** 'Silver, Jonathan' <[REDACTED]@hq.doe.gov>; 'Frantz, David' <[REDACTED]@hq.doe.gov>; 'Richardson, Susan' <[REDACTED]@hq.doe.gov>; 'Seward, Lachlan' <[REDACTED]@hq.doe.gov>  
**Subject:** RE: Principals Meeting

---

Here is one which we should think about but which we might conclude is not for this one but rather for discussion in the future. The calculation of credit subsidy cost on 1603 transactions is very complex and difficult using the OMB mandated methodology. We never got OMB to admit that the 1603 cash flows are inherently less risky than the underlying project cash flows. Life would be a lot easier if we just put the cash flows in one model and let it plug and chug to the CSC for a 1603 transaction. This would over estimate the CSC given that the 1603 cash flows are inherently less risky but so what. That overstatement would be worth it for the simplified calculation process and would help build us a cushion of aggregate CSC transaction by transaction.

Downside is that it might well reopen a can of worms, trigger "policy" debate about 1603 with Treasury (double dipping) with all of that occurring before a lame duck. It might be a lot better to tackle something of this magnitude before a fresh OMB director.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: Silver, Jonathan [mailto:[REDACTED]@hq.doe.gov]  
Sent: Wednesday, July 14, 2010 10:37 PM  
To: Frantz, David; jimccrea@[REDACTED]; Richardson, Susan; Seward, Lachlan  
Subject:

There will be one more principals mtg with chu and orszag before he goes. Need our agenda items. Things that can be solved in a mtg. Manufacturing solicitation and 48c. Others?

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]



**From:** McCrea, Jim <[REDACTED]@Hq.Doe.Gov>  
**Sent:** Thursday, June 10, 2010 4:39 AM (GMT)  
**To:** jimccrea@[REDACTED]  
**Subject:** FW: Abengoa -- Final DOE Responses --OMB and the Recovery Rating

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From: Isakowitz, Steve  
Sent: Thursday, June 10, 2010 12:39:06 AM  
To: McCrea, Jim  
Subject: Re: Abengoa -- Final DOE Responses --OMB and the Recovery Rating

Auto forwarded by a Rule

Thanks, Jim. We ought to consider how we might break this logjam. For example, what if we had a blue ribbon review team come in to assess the quality of our process and based on the review get OMB to let go.

Steve

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**From:** McCrea, Jim  
**To:** Isakowitz, Steve  
**Sent:** Wed Jun 09 23:48:52 2010  
**Subject:** FW: Abengoa -- Final DOE Responses --OMB and the Recovery Rating

Steve --

At CRB today we had a brief discussion about what is going on with OMB and the recovery ratings. The e-mail at the bottom shows what they give us on the credit subsidy cost analysis and the way in which we are forced to respond and document our differences. Red text is our rebuttal. They simply do not seem inclined to be bound by the agreed upon process but rather want to put a heavy and arbitrary thumb on our risk rating and our recovery ratings. Abengoa is one of the very few where they did not want to downward adjust the credit rating that comes out of the Internal Risk Rating model which we strictly apply. There is no grade inflation in the risk and recovery scores from Credit. Our Recovery Ratings are almost without exception adjusted downward. It is rather astounding that the DOE Credit team with an average of 25 years of energy project finance and heavy duty credit experience can so consistently be wrong and the adjustments required to correct our work are always downward.

The process of documenting things as we did in the e-mail below is essential because another thing that happens all the time is that OMB compares one transaction to another in a search for consistency. If we do not challenge their review of Abengoa but simply accept the 45% recovery ratings, when the next transaction come along that is worse than Abengoa, we will be at 40% and comparative consistency to Abengoa will require that. It is truly a humbling experience for the entire Credit team. We have never in our lives been so wrong and done such consistently poor work! AREVA was a shocking wake up call on Credit Subsidy Cost. There was absolutely no overlap between the DOE credit subsidy cost range and the OMB range. In fact, the low end of the OMB range was more than \$2 million higher than the upper end of the DOE range and since they lowered both risk rating and recovery ratings, the OMB range was wider than the DOE range. Their work simply cannot be justified and does not withstand even modest scrutiny. At some point, especially on a 1703 transaction that must withstand public scrutiny, GAO and or the Hill, goaded by an irate applicant, will have a field day and no one will be able to defend credit subsidy cost results because the agreed upon process has been thrown out the window and an ad hoc arbitrary method is used to adjust the ODE numbers which are prepared strictly by the mandated process.

If you have questions, please let me know.

Jim

JM\_00212340

Jim McCrea  
Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

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**From:** McCrea, Jim  
**Sent:** Wednesday, June 09, 2010 12:49 AM  
**To:** 'Colyar, Kelly T.'; Frantz, David; Kittell, Matthew; boakley@[REDACTED]; anthony.curcio@[REDACTED]  
**Cc:** Saad, Fouad P.; Silver, Jonathan; Poneman, Daniel  
**Subject:** RE: Abengoa -- Final DOE Responses

Kelly & Fouad

DOE has run the cash flows for credit subsidy cost purposes using your methodology and will present those Credit Subsidy Cost numbers to CRB tomorrow. However, this does not represent DOE agreement with your approach and methodology. As you know, DOE and OMB spent significant amounts of time dealing with the Recovery Rating Matrix and the 55% base line recovery rating was the result of that intense process. The model was specifically intended to make it very difficult to notch up, hence the requirement in each tab for an 8.0 or higher score for a 5% notch up. Likewise, the model was equally designed to avoid arbitrary notching downward by requiring a 2.0 or lower score for a -5% notch. We do not think that it is appropriate that either agency start making arbitrary notching decisions outside of the model methodology given its history and the interagency agreement. All of the DOE recovery ratings have been generated by the strict application of the model and DOE will not accept the validity of recovery ratings not generated through the strict application of the model. However, as stated above, for the purposes of the Gate 2 credit subsidy cost we will use the cash flows generated using the OMB values of BB/45%/45%. Although you did not specify, DOE assumes that you intended to convey to us an OMB view that the recovery rating was 45% in both the pre and post completion periods.

Our specific responses are embedded in the e-mail below in red and bold as is our practice.

As a result of some computer issues, the required cash flow files as well as the amortization schedule referenced in response to Technical Questions below will be sent shortly attached to a separate e-mail.

Jim

Jim McCrea  
Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

**From:** Colyar, Kelly T. [mailto: [REDACTED]@omb.eop.gov]

**Sent:** Tuesday, June 08, 2010 11:11 AM

**To:** McCrea, Jim; Frantz, David; Kittell, Matthew; boakley@ [REDACTED] anthony.curcio@ [REDACTED]

**Cc:** Saad, Fouad P.

**Subject:** RE: Abengoa -- Final DOE Responses

Jim/Dave,

Thanks for the additional information on the Abengoa Solana project. We appreciate DOE's efforts to address these questions. DOE's responses have largely addressed most of our concerns. However, I wanted to follow up on a few items so that we can close out the Gate 2 estimate for this project. Specifically, OMB suggests the following:

#### **DEFAULT RATING**

OMB concurs that DOE's proposed default rating of BB is reasonable at this stage. However, the current conditions in Europe and potential changes to the Spanish renewable energy subsidies warrant ongoing monitoring given the project's reliance on Abengoa S.A for the parent guarantee. Material changes in the parent company or European market more broadly may require an adjustment at a later stage. We look forward to discussing the current status with DOE prior to closing.

**DOE agrees that ongoing monitoring of Abengoa S.A.'s financial situation should be conducted and revisited prior the closing. DOE would (and will) do this in the ordinary course as this is a normal part of the DOE continuing due diligence between conditional commitment and closing.**

#### **RECOVERY ESTIMATE**

1. **Contractual Foundation: (NOTCH DOWN 5%)** As DOE notes, in limited recourse financing, a project's contractual framework and foundation of the financing represents an important consideration for a lender. This is particularly true under a stressed situation since the lender may only look to the project's cashflows and other collateral pledged for satisfaction of the obligation. In the case of Abengoa, the specific nature and structure of the project warrants consideration.

As compared with a typical project finance structure, the Leveraged Lease structure introduces an additional layer of complexity with the inter-relation of the project contracts, which increases the opportunity for misalignment among those contracts. The structure also reduces the overall transparency in the project. Rather than looking to one entity for executing DOE's step-in rights in a workout situation, DOE would need to look to the various contracts and obligations of two entities, complicating, and in all probability delaying, recovery in the event of a default. Further, in the case of Abengoa, many of the project contracts are with company affiliates which limit the degree of risk transfer and could reduce recoveries under a default situation. Each of these factors individually warrants consideration. We propose incorporating both through a single notch to 'contractual foundation' in the recovery estimate.

**DOE does not disagree with your assessment of the transaction structure and its attendant complexities. However, as you are well aware, by design, the Recovery Matrix does not change easily based on one to two specific attributes. While the items outlined above will lower the score under "Contractual Foundation," we do not believe these attributes will result in a downward notch under this category and therefore such notching will not be substantiated by our agreed upon methodology.**

2. Sponsor Equity Contribution: (NOTCH DOWN 5%) While we agree that the overall capitalization of the project meets the basic requirements of the program, the composition of the equity contribution warrants consideration. During both the pre- and post-COD phases of the project, the sponsor has a limited equity contribution in the project (10.4% during construction, 15% post COD). Both DOE and OMB agree that under a default situation, the interests of tax equity and DOE as the senior lender would likely diverge. While the tax equity contribution may be necessary to finance the project, the limited sponsor equity contribution should be captured in the credit subsidy estimate. Consistent with other categories, OMB proposes a 5% notch for this factor.

**DOE notes that there is not a tab in the recovery matrix called "Sponsor Equity Contribution" and therefore, it appears that OMB is proposing an arbitrary notching that is not consistent with the agreed upon methodology. Is OMB proposing to revise the recovery matrix to add a new tab?**

#### TECHNICAL ISSUES

Per our conversation Thursday, we look forward to seeing DOE's proposal on language to include in the term sheet to bound the potential cost of a modification. As we also discussed, it would be helpful to see the analysis DOE conducted in developing the revised cashflows so that we can get develop a mutual frame of reference for how conservative the revisions are along with the baseline assumptions that would be included in the estimate (per A-11). I think we both agree that avoiding appropriations risk is the best outcome. We appreciate DOE's efforts to date to develop an appropriate path forward. If we need an additional call this week to close this out, let me know.

**As we discussed, DOE believes that the Term Sheet language as currently written will avoid the need for a modification. The change in the amortization schedule post LLCD is contemplated in the Term Sheet and will be further detailed in the financing documents as part of the closing process. As we shared in our last correspondence, DOE believes that the average life limitation of 16.3 years effectively limits the cost of the option to change the amortization at the Leveraged Lease Commencement Date.**

With regard to the analysis supporting our assessment that changes to the amortization schedule will not result in an increased cost to the government, DOE has conducted further analysis. DOE will run the Gate 2 subsidy utilizing the amortization in the attached Excel file. This amortization schedule results in a post LLCD average life 21.6 years which is 5 years longer than the average life in the current model that is before OMB. To the extent the final financing documents and commitments reduce the uncertainty related to the reoptimization of the amortization schedule, DOE intends to revisit this issue as part of the Gate 3 process.

Thanks again for the quick turn around on responses. Please let me know if you have any questions.

---

**From:** McCrea, Jim [mailto: [REDACTED]@Hq.Doe.Gov]

**Sent:** Tuesday, May 25, 2010 6:59 PM

**To:** Colyar, Kelly T.; Saad, Fouad P.; Carroll, J. Kevin; Mertens, Richard A.; Lyberg, Sarah A.; Stein, Nora; Frantz, David; Westerheim, Ove; Angbede, Kimberley; Kim, Dong; Gorman, Patrick; john.ashburne@[REDACTED]; Kittell, Matthew; 'boakley@[REDACTED]'; 'anthony.curcio@[REDACTED]'; Aldy, Joseph E.; Browner, Carol M.; Ericsson, Sally

C.; Farrell, Diana; Liebman, Jeffrey B.; Poneman, Daniel; Silver, Jonathan; Zichal, Heather R.;

[REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov;

[REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov;

[REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov;

Preston Atkins ([REDACTED]@do.treas.gov); [REDACTED]@do.treas.gov

**Subject:** Abengoa -- Final DOE Responses

OMB, Treasury & FFB Colleagues --

DOE is pleased to provide its final responses to the two sets of questions that it received from you. DOE has now provided 100% of the necessary responses. As before, revisions are highlighted in yellow and include [REVISED]. In this response, DOE has responded to term sheet questions 25 and 26, revised and amplified its previous response to term sheet question 28 and amplified its response to term sheet question 30.

Paula -- I believe that I have the full complement at Treasury/FFB per your instruction.

Jim

James C. McCrea

Senior Credit Advisor

Loan Programs

U.S. Department of Energy

[REDACTED]

**From:** McCrea, Jim <[REDACTED]@Hq.Doe.Gov>  
**Sent:** Tuesday, June 29, 2010 8:53 PM (GMT)  
**To:** jimmccrea@[REDACTED]  
**Subject:** FW:  
**Attach:** Treasury consultation memo.docx; Treasury Consultation Talking Points.docx

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From: Silver, Jonathan  
Sent: Tuesday, June 29, 2010 4:52:51 PM  
To: McCrea, Jim; Frantz, David  
Auto forwarded by a Rule

You asked for a set of these at the brown bag today...

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585  
[REDACTED]

## OVERVIEW

The Loan Guarantee Program (LGP) is required to consult with Treasury on all loan guarantee transactions. Treasury, principally through the small policy shop in the office of the Assistant Secretary for Financial Markets, has taken an increasingly expansive view of the largely undefined requirement for consultation. As a result, Treasury consultations (which often mirror the work OMB does) are causing serious delays in moving loans through the approvals process. Treasury's review now rivals OMB's in the time it takes to complete and the intensity of the review. As more and more projects move through the system, this delay is only likely to get worse.

## CONSULTATION REQUIREMENT

Under Section 1702 of the EPCA of 2005, the Secretary is empowered to make guarantees "...on such terms and conditions as the Secretary determines, after consultation with the Secretary of the Treasury..." The Final Rule in §609.7 on Programmatic, Technical and Financial evaluation of Applications, states "Concurrent with its review process, DOE will consult with the Secretary of the Treasury regarding the terms and conditions of the potential loan guarantee." and §609.9 (d)(4) states that prior to, or on, the Closing Date DOE will ensure that "The Department of the Treasury has been consulted as to the terms and conditions of the Loan Guarantee Agreement." No further elaboration is provided.

## BRIEF HISTORY of THE DOE-TREASURY CONSULTATION PROCESS

In October, 2009, the original loan guarantee team met with senior management of the Federal Financing Bank (FFB) to design an appropriate consultation process. (The FFB is the agency at Treasury that handles all the cash flows for the loans.) By mutual agreement, the LGP began to provide Treasury/FFB with copies of the credit paper and term sheet for each transaction and followed that up with a conference call to answer any questions. Treasury then sent an email stating that the consultation requirement had been met. This process took about an hour for each transaction.

Beginning in Q1 2010, at OMB's request, Treasury/FFB began for the first time to attend the full briefings that LGP conducts for OMB on each transaction. As a result, the Treasury team began requesting additional materials. (Later, Treasury stopped attending the OMB meetings, a de-linking that has generally been helpful to the LGP, but requested their own briefing.)

Currently, at Treasury's request, we deliver the full package of materials that we deliver to OMB to 13 different individuals at Treasury/FFB, including:

- 1) credit paper
- 2) briefing presentation
- 3) term sheet
- 4) transaction financial model
- 5) independent engineer's report
- 6) market consultant's report
- 7) rating agency credit assessment
- 8) LGP internal risk rating workbook
- 9) LGP recovery rating workbook.

This package is followed up with a full briefing subsequent to which Treasury/FFB now issues the LGP a set of written questions much like the questions LGP receives from OMB. LGP replies with detailed written responses.

Where Treasury determines that there are potential policy concerns (and, to date, they have had concerns on nearly every project), Treasury staff, and often OMB and the NEC, get involved. Further briefings and discussions ensue.

Once the policy discussions conclude (and there is no timetable for that), Treasury issues a notice of consultation. These notices now come heavily caveated and recent notes have required DOE to re-consult if there are material changes to a transaction or about specific topics Treasury finds of interest. (Note that there is no legislative or statutory language that authorizes or requires a re-consult.) The dialogue with Treasury/FFB does not have an agreed upon timeline and can take an extended time.

#### RECENT EXAMPLES

The following are examples of recent issues surfaced by Treasury which have had a significant adverse impact on the timing of LGP transactions:

Abengoa: Treasury debated the use of a traditional leveraged lease transaction in spite of confirmation by DOE's outside counsel that the transaction was standard. (Similar leveraged lease structures have been used to finance many large scale power plants, and many of the features which Treasury objected to are used to finance the majority of the large commercial aircraft in the US commercial aviation fleet.) For a long time, Treasury pushed for the LGP to obtain a Private Letter Ruling from the IRS, despite the fact that the last PLR issued on a leveraged lease transaction took place in 1991. Treasury later "allowed" the transaction to proceed with a "will" opinion, which will require some level of restructuring of the transaction in the final documents before such an opinion can be obtained.



First Wind: Treasury would not provide the FFB spreads required to calculate the cash flows and final credit subsidy number in a timely fashion, which caused the company to miss a unique announcement opportunity. Treasury apparently has instituted a new policy emanating out of the Assistant Secretary's office that requires FFB to calculate spreads, get them approved by the FFB board and THEN be re-reviewed by the policy team in the Assistant Secretary's office.

New Manufacturing solicitation: Concern over "double dipping" by permitting an applicant to obtain a 48c grant (a tax credit provided after, but only after, a company is profitable) has stalled release of the solicitation. There is a simple solution to this issue which LGP has suggested but which for reasons that are still unclear, do not appear to assuage Treasury.

There are many, many more examples.

#### PROPOSED ACTION

LGP and Treasury should enter an MOU which defines Treasury's consultative role. Specifically, Treasury should ensure that LGP has completed its work in a thorough and professional manner against a checklist of items to be mutually agreed upon. Treasury should review the credit paper for potential policy items but does not need, and should not have, access to any other materials and should have 3 business days to surface any potential policy issues. Absent a finding that there are legitimate policy issues, Treasury will be deemed to have been consulted. There will be no further consultation post the initial review.

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**From:** John Woolard  
**Sent:** Tuesday, December 08, 2009 9:07 PM  
**To:** Natalie Schaefer; 'Steve McBee'; Jack Jenkins-Stark; Joshua Bar-Lev  
**Subject:** RE: Bobby K. please read.

5:45 should work

-----Original Message-----

**From:** Natalie Schaefer  
**Sent:** Tuesday, December 08, 2009 1:06 PM  
**To:** John Woolard; Steve McBee; Natalie Schaefer; Jack Jenkins-Stark; Joshua Bar-Lev  
**Subject:** RE: Bobby K. please read.

Great- when should we move our McBee call to?

-----Original Message-----

**From:** John Woolard  
**Sent:** Tuesday, December 08, 2009 1:05 PM  
**To:** Steve McBee; [REDACTED]@brightsourceenergy.com; Jack Jenkins-Stark; Joshua Bar-Lev  
**Subject:** FW: Bobby K. please read.  
**Importance:** High

Just got scheduled with Chu at 5:15 today for a call - JW

-----Original Message-----

**From:** Kris Courtney  
**Sent:** Tuesday, December 08, 2009 12:02 PM  
**To:** John Woolard  
**Subject:** Bobby K. please read.  
**Importance:** High

Call Bobby when you have a moment.

He spoke with Carol Browner, who spoke with DOE and DOE promised a call back to you/BSE within 24 hours. He also spoke with Ed Markey. Wants you to call him so he can brief you.

k

**From:** James C McCrea <jimmccrea@[REDACTED]>  
**Sent:** Friday, May 7, 2010 10:28 PM (GMT)  
**To:** 'Sandra Claghorn' <sandra.claghorn@[REDACTED]>  
**Subject:** RE: First Wind - Fitch

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Been in meetings all day including pre brief of Dep Sec on AREVA and Abengoa and then AREVA stuff that just finished. My 8PM Shuttle got canx and I am now on the 9PM. Between you and me, OMB is really really wondering what the heck is going on on FW and sending something over with that caveat is a huge issue. JS can't figure why we can't get the docs done in the next couple of days so they can be given to Fitch. He is heading to a meeting on Monday with all of us to address that. I may call in or I may come down. Time not set yet but will be PM most likely.

Monique overdrove this and the OMB concern is now at the Liebman (Deputy Director) level. Jonathan has told them clearly that the FW ball is in the DOE court. Sending that Fitch report over will kill us. My fear is that FW gets put on the agenda for the first meeting between meeting in a week or so between Chu and Orszag as they sit down bi-weekly to referee the relationship.

More to come over the weekend.

Jim

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James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

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**From:** Sandra Claghorn [mailto:sandra.claghorn@[REDACTED]]  
**Sent:** Friday, May 07, 2010 5:37 PM  
**To:** Jim McCrea  
**Subject:** First Wind - Fitch

Hi again-

The letter came in today with a big caveat that Fitch had not yet reviewed the financing docs. Monique called and asked what to do (because I hadn't been clear earlier, I guess...). Anyway, we decided that it was important to explain exactly what docs need to be substantively negotiated before we submit to FFB. With that in mind, I'm going to prepare a spreadsheet outlining in general what terms are in what documents. Monique noted that we don't want to send the Common Agreement and assume that we are "done" when the Sponsor Guaranty, the Collateral Agency Agreement and the Security Agreement have not yet been negotiated. Monique noted that they have only negotiated the Common Agreement and will be negotiating key docs "right up to the night before closing".

Anyway, in the interest of bridging this communication gap, I will send you an outline of which terms are in which documents and we can hopefully then all agree on which docs need to be substantively completed and reviewed by Fitch before we can submit to OMB.

Thanks again-  
Sandy

Sandra Claghorn

JM\_00078063

Credit Consultant  
LGPO / ATVM



**From:** Roger McDaniel <rogermcdaniel@[REDACTED]>  
**Sent:** Tuesday, March 2, 2010 4:19 PM (GMT)  
**To:** Anthony Curcio <anthony.curcio@[REDACTED]>; Brian Oakley <boakley@[REDACTED]>  
**Cc:** Jim McCrea <jimmccrea@[REDACTED]>  
**Subject:** OMB scoring

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It is very possible that the OMB approach could result in a lower CSC than the approach that we are working on. Here's an example, using First Wind (\$89 million project loan, \$28 million 1603 tax grant loan):

Our approach

\$89 mm project loan, 18 years, BB rating: Subsidy cost of 1.7% = \$1.5130 mm.  
\$28 mm 1603 tax grant loan, 5 years, A rating: subsidy cost of, say, 0.4% = \$0.112 million  
Total subsidy cost of \$1.625 million.

OMB approach (using the correct rating for the 1603 tax grant loan)

Re-amortization of 1603 tax grant loan loss = \$0.112 million.  
Resulting adjusted project loan: \$89.112 million.  
If the minimum DSCR has not changed "materially" (see below), the credit rating should not change, so the subsidy cost would be 1.7% x \$89.011 million = \$1.515 million.

In this example, the OMB approach has a credit subsidy cost that is about \$110,000 lower.

"Materially"

One element of the complexity of OMB's approach is their notching. For example, if the minimum DSCR after re-amortization is between 1.25 and 1.35, they would reduce the rating by one notch. But if, say, the minimum DSCR was originally 1.30 and the adjusted minimum DSCR is 1.27, there shouldn't be any notching. Even accepting their approach, it's not the resulting minimum DSCR that should be considered but the change in the DSCR. If there's not a material change in the minimum DSCR, there should be no notching even if it's a low minimum.

Of course, the minimum is only one part of DSCR analysis. It's more important in some projects than others. In many projects, the average (properly construed) will be more important, and in some projects (e.g., AREVA) it's the sensitivity cases that are more important.

Roger

**From:** James C McCrea <jimmccrea@[REDACTED]>  
**Sent:** Friday, June 4, 2010 4:19 AM (GMT)  
**To:** 'Roger McDaniel' <rogermcdaniel@[REDACTED]>; 'Brian Oakley' <boakley@[REDACTED]>  
**Subject:** FW: USRG Interest Rate  
**Attach:** FIPP Interest Rate Calculation.xlsx

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Roger –

Unless someone shows me an error in your calcs (which I doubt there is), I am in complete agreement with you. This is exactly what Treasury and OMB were asking about in their attempt to see what was happening within Hancock when the Blue Mountain transaction got placed in their managed funds. Therefore, we know it is on their radar screen. Bloom is another example (control of IPO proceeds) that it is on very high level radar screens.

The second point that is worth making and keeping in mind is that we see a lot of very quantitative people at OMB and Treasury. It is really only a matter of time before they figure out some similar form of analysis. This will be a logical result of them mulling over the question as they are already doing. If they come to their analysis and we have not controlled things, there will be hell to pay, up to and including putting all transactions on hold til things are sorted out. In short, the risks associated with proceeding with transactions structured such as USRG are pretty high.

I am copying Brian on this as I would like him to review your methodology and comment on it. That way there is a greater prospect that we have caught any methodological errors and issues. I recognize that at least Peter and Morgan are pretty insensitive to the concerns that you and I have. However, their insensitivity is a result of not having had to deal with OMB, Treasury and the WH which has in turn allowed them to continue to wear their commercial world blinders, the blinders which we have all had painfully ripped from our heads!

Jim

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James C, McCrea  
JAMES McCREA & ASSOCIATES LLC

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**From:** Roger McDaniel [mailto:rogermcdaniel@[REDACTED]]  
**Sent:** Thursday, June 03, 2010 1:18 PM  
**To:** 'Jim McCrea'  
**Subject:** RE: USRG Interest Rate

FYI:

This may not be specifically your responsibility, but your antennae are the most finely tuned, so you should be up on this issue.

I had a call on this subject with Peter and Morgan this morning, with Jonathan dropping in. I don't want to be oversensitive to this issue, and I would appreciate your views, but here's a brief summary, using the rough all-in rate of 7% quoted by USRG (approximately T+350) and the T+150 quoted by Hancock for Blue Mountain guaranteed portion:

If you unbundle 7% using T+150 for the 80% guaranteed piece, USRG will get T+1100 for its unguaranteed piece. They

are proposing to turn this piece into a first-loss position, so we can probably get close enough to justify the rate as subordinated debt, although I still expect OMB/Treasury to react.

Here's the rub that I have identified but that our audiences may not bring up:

Since we guarantee 80% of the total, we'll be guaranteeing T+350 on 80%. But the AAA holders will only receive T+150. The extra 200 bp goes to USRG, and that's what gets it to the 1100 bp spread. So far, so good.

However, since that extra 200 bp is guaranteed, part of USRG's 1100 bp is guaranteed.

When I unbundle the 20% USRG share, I get 13% of it covered by the 200 bp skim (assuming T+150, since it's guaranteed).

That means that on the 7% that is really at risk, USRG gets T+2000 [sic].

(13% @ T+150 blended with 7% @ T+2000 = ~T+1100 bp)

T+ 2000 is in the neighborhood of a 24% coupon.

My concern is (a) 24% for even a subordinated debt position is awfully high, but Jonathan and CRB may not ask my opinion, and (b) if a number that high becomes known, it will be very hard to defend to CRB, OMB, Treasury or the White House. Jonathan may choose not to present this analysis, but he certainly needs to know about it and to know what the answer is if someone asks.

I'll be putting together a summary of this that will attempt to be understandable. I'm trying for tomorrow.

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**From:** Roger McDaniel [mailto:rogermcdaniel@[REDACTED]]  
**Sent:** Wednesday, June 02, 2010 9:25 PM  
**To:** "Peter O'Rourke"; 'Jim McCrea'; Morgan Wright ([REDACTED]@hq.doe.gov)  
**Subject:** RE: USRG Interest Rate

In anticipation of our meeting tomorrow morning, I have attached a spreadsheet on my point 2 below. Here's what I found, using approximate Blue Mountain numbers (approximate, because I assumed annual amortization rather than quarterly).

In Blue Mountain, the 80% guaranteed interest rate is assumed to be 5.49% (assumed 3.54% T-rate plus blended spread of 1.95%). But because only 1.50% of spread is assigned to the AAA-rated guaranteed portion, part of the unguaranteed portion is effectively guaranteed. If we allocate a guaranteed spread of 1.50% to that portion, the remainder (the portion really at risk) has an effective spread of 3.82% (if my numbers are right)—cell F58 on the Blue Mountain tab of the attachment. The nominal unguaranteed spread was 3.75%, so that's not much of a bump to be concerned about.

But with USRG's numbers, the story is more dramatic. As I mentioned below, if the blended rate is 7% and the guaranteed rate is T+150, with a 3.54% Treasury rate (Blue Mountain assumption), USRG's unguaranteed spread is over 1100 bp.

But that's not the end of the story. If we do the same analysis as above and DOE is guaranteeing a blended rate of 7% on 80% of the loan, about 57% of the 20% unguaranteed portion gets the excess of the guaranteed interest rate. If we assign T+150 to that payment stream, the remaining 43% gets a total interest rate of 24.4%, for an effective spread on USRG's dollars at risk of almost 21% (USRG tab, cell F59).

We can justify a lot, but numbers like that are hard to get over. And I would not be surprised if USRG had examined a calculation much like this one.

Roger

**From:** rogermcdaniel@ [redacted] [mailto:rogermcdaniel@ [redacted]]  
**Sent:** Sunday, May 30, 2010 2:21 PM  
**To:** O'Rourke, Peter; James C. McCrea  
**Subject:** Re: USRG

I'm writing from Cape Cod, at least.

I may not be in DC this week unless needed for CRB or the 17 floor briefing on this, so please let me know when you get a sense of when that briefing is likely to be scheduled.

Two other thoughts:

1. I didn't ask USRG-but meant to-how they expect to finance small projects efficiently when no one else is able to do so. In fact, where a project is \$25 mm in the commercial market, in a major respect it is a \$5 mm (unguaranteed) project for them-which makes it even more inefficient. Of course, this will help justify their spread.
2. The way FIPP is structured leads to the following interesting result (example: Blue Mountain): The guaranteed piece is priced at T+150, but because it's a blended rate that is guaranteed, there's an 80% guarantee of T+195. So when Hancock strips it internally and assigns T+150 to the guaranteed piece, a portion of the interest on the unguar piece gets the benefit of the guarantee.

We didn't analyze this in detail for Blue Mtn, but if USRG puts 1100 bp on the unguar piece before this effect, imagine what its rate of return will be after this effect.

Sent via BlackBerry from T-Mobile

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**From:** "O'Rourke, Peter" < [redacted]@Hq.Doe.Gov>  
**Date:** Sun, 30 May 2010 09:21:16 -0400  
**To:** 'Roger McDaniel' <rogermcdaniel@ [redacted]>; 'James C McCrea' <jimmccrea@ [redacted]>  
**Subject:** RE: USRG

Probably some over and some under... ☺

1. Agree completely.
2. Would enjoy discussing that some more, as I think it has bearing on your point 3.
3. This is my main concern too, and the point of most discussion. Relative to DOE, we will be doing the 'socializing' internally and I think this point needs to be front/center in all discussions. I do still disagree that this is really rich pricing.
4. It will delay, but think that we're dealing with now is better than later. And thanks again to you for making it an issue now vs. later.
5. Good idea.

Most important, why are you /me not enjoying memorial weekend?

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**From:** Roger McDaniel [mailto:rogermcdaniel@ [redacted]]  
**Sent:** Saturday, May 29, 2010 3:36 PM  
**To:** O'Rourke, Peter; 'James C McCrea'  
**Subject:** RE: USRG

I'm not sure whether we're overanalyzing this or underanalyzing it.

1. Whether a project can handle a 7% interest rate (or whatever it is) is part of the credit analysis that applies to any



project. It's a separate question from the equity-rate-of-return question.

2. What the relationship of FIPP to the credit markets should be is a good question. It could probably stand some re-evaluation based on actual experience and the development of the credit markets, but that's a broader question.
3. The point I was focusing on is optics and policy. Is DOE comfortable supporting really rich pricing for the lender in a FIPP project? That's not a decision at our level, but I brought it up because I didn't want Jonathan, CRB or the Secretary to be blindsided. I referred to OMB and Treasury, but first it's a question for DOE. If the DOE powers-that-be are fully informed and are comfortable with it, they will be in a position to defend it when challenged by OMB, Treasury or anyone else.
4. Timing is a separate question. As Jim indicates, this issue could easily delay the approval process for at least the first transaction.
5. If it's determined to be a problem, an alternative would be for USRG to put some leverage into its capital structure, so that the weighted average cost of capital would be brought down into a more acceptable range and they wouldn't require such high pricing.

Roger

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**From:** O'Rourke, Peter [mailto: [REDACTED]@Hq.Doe.Gov]  
**Sent:** Saturday, May 29, 2010 8:33 AM  
**To:** 'James C McCrea'; 'Roger McDaniel'  
**Subject:** RE: USRG

Jim, Roger:

Thanks for both emails. In terms of Roger asking those questions yesterday (esp in front of USRG), that's exactly the sort of issue we need to be asking now and with USRG present. So, I'm very happy this is being raised at this point.

Regarding the policy issues, I hear what you're saying. I think there are two fundamental issues, however. First, can Project X support an interest rate of Y%? That is a standard, reasonable issue that is asked in every type of transaction. Second, what will fly with Treasury/OMB? Part of the discussion that I'd like to have is if it makes sense to separate the two issues entirely. I know it would seem like putting on blinders to the reality of the process, but we also should be structuring deals that are based on solid project finance fundamentals. And it seems that even if we're structuring deals with the specter of OMB in mind, we still get burned... it's a game of find a rock. They ask for a rock, and we bring them a rock. They say, no not that kind of rock, one with a bit more smoothness to it. Next rock is too smooth, and so on.

Regarding 7 or 8 or 9% being too high, and the concern that banks make a profit of the DOE guarantee, what's the point of FIPP? Isn't the whole concept to engage with the private sector? And if Hancock won a competition for Blue Mountain and that helped to establish the rate, then great. Did we run the competition, or did the project? Assuming it was the latter, then I'll also assume that any projects brought to us by USRG (or whomever) also have gone through a process of selecting a lender and have chosen USRG. Roger heard yesterday that there are 30+ projects they've identified to bring to us. If those 30+ projects have other options that are priced better, don't have a hassle of the loan guarantee (nepa, etc.), and can close in <3 months, they will take those options.

This isn't something the three of us will resolve, I understand. But, I would like to see about having a larger discussion about whether it makes sense to keep playing find a rock, or whether we're supposed to help structure solid deals (not that the current deals aren't solid, as I'm sure they are) and then let policy fights occur at another level.

peter

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**From:** James C McCrea [mailto:jimmccrea@ ]  
**Sent:** Friday, May 28, 2010 10:26 PM  
**To:** 'Roger McDaniel'; O'Rourke, Peter  
**Subject:** RE: USRG

I have not been through all of this and so don't have a well developed view yet. However, the extent to which others are profiting from DOE guarantees is a large, ongoing, and growing topic in the approval process at OMB, WH and Treasury.

Witness Bloom and Blue Mountain where we spent a lot of time dealing with the possibility that John Hancock would make a spread putting the transaction into the various funds it manages. Roger asked questions about Blue Mountain before it got into approval and people were not happy with him asking the questions and then the exact same questions came up during our briefing on OMB and Treasury.

I think that you really have to ask what is the appropriate rate for the paper that is guaranteed and 7% seems high as it is no longer project risk at all.

We are having the devil of a time on Abengoa which has a very conventional leveraged lease. There are a lot of questions as to whether we should be encouraging leveraged leases as they reduce taxes. It looks like there will be a CP on Abengoa that a IRS ruling must be obtained. That will likely kill the deal and cause a firestorm but it gives you a sense of the sensitivity.

My quick take on the numbers below is that they will cause the transaction to hang in the approval process.

Jim

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James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC



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**From:** Roger McDaniel [mailto:rogermdaniel@ ]  
**Sent:** Friday, May 28, 2010 10:13 PM  
**To:** 'O'Rourke, Peter'  
**Cc:** 'Jim McCrea'  
**Subject:** RE: USRG

Peter:

Seven percent, or T+350, would be just fine if this were totally unguaranteed. The issue is that a spread of 1110 bp is extremely high. A few years ago there were some ethanol projects priced at 1000, but that was in a bad market with oversupply of ethanol. In normal markets project finance lenders would reject projects with appropriate pricing higher than 350 or so as too risky. Maybe that should be expanded to, say, 500 or even 600 bp, but 1100 is hard to justify. The justification based on their cost of capital would be that they are the only game in town.

Blue Mountain is a \$98.5 million geothermal project, within the size range that USRG is targeting. Hancock won the deal competitively. Geothermal projects are at least as risky as the wind and solar projects that are in USRG's sweet spot. BM is 19.5 years, in the same general ballpark as the 20-25 years that we can expect from USRG. BM has completed construction, while USRG's projects will include construction financing.

Those differences don't justify a 750-bp difference in rates.

However, if USRG were to beat out Hancock and others for \$100 mm deals, that would be good competition, but the rate would probably come in lower.

I'm not trying to cause problems, but it's better for us to identify potential issues early. At best, this may be an optics problem, and it feels like something that will cause problems with OMB, at least. We're trying to adjust our process with OMB to make it more efficient, but we still have to keep them in mind as an audience.

If we decide to go with this pricing, we should have our eyes open about how it looks and be prepared when people react. We probably won't socialize their approach to pricing in advance (with the 7<sup>th</sup> floor, for example), but we might consider it.

Can we avoid looking at the guaranteed and unguaranteed spreads separately? No. It will be part of our analysis of the rate (there won't be any comparables for 80%-guaranteed project finance paper, so we'll need to look at guaranteed paper and unguaranteed paper) and Treasury will specifically want to know how the guaranteed piece is priced.

By the way, the T+150 is from the Hancock deal. Of course, if it were lower, the unguaranteed portion pricing would be even higher. If it were, say, T+200 and a blended rate of 7%, the unguaranteed piece would still be 932 bp.

Roger

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**From:** O'Rourke, Peter [mailto:██████████@Hq.Doe.Gov]  
**Sent:** Friday, May 28, 2010 7:26 PM  
**To:** 'Roger McDaniel'; Jim McCrea  
**Subject:** RE: USRG

Good summary Roger.

I would like to have an internal discussion, most likely including Jonathan, regarding the rate spread issue. I have far less concern about this than others on our side. I have been on the project side of this equation before, and I can tell you a 7% rate is exceedingly reasonable over the past many years (well before the recent capital constraints).

I'd like to know what the policy drivers are shaping our opinions, where the main external concerns/pressure will come from, and how we might look at solutions to this. I don't know the Blue Mountain particulars well enough, but it is not representative of what a typical project in these size ranges face in the debt market. And if we're going to look at this thoroughly, we should look at USRG's cost of capital, nepa costs, etc.

I'm quite concerned that if we believe a 7% rate for these projects is too high, then we will be attracting only the one-off Blue Mountain and not much more.

Peter

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**From:** Roger McDaniel [mailto:rogermcdaniel@██████████]  
**Sent:** Friday, May 28, 2010 6:02 PM  
**To:** Jim McCrea  
**Cc:** O'Rourke, Peter  
**Subject:** USRG

Jim:

We had a good 2 ½ hour meeting with USRG today. Audience included Jonathan (for an hour or so), Susan, Doug, Morgan Wright, Matt Winters, Whitcombe, Codrington (by phone) and Corrigan, in addition to Peter O'Rourke and me. Peter, Nick, Susan and I all had a positive reaction. I haven't talked to the others. I infer that Jonathan is supportive—he wants to start briefing the 7<sup>th</sup> floor as early as next week.

(Peter: Let's get Jim's take on all this before doing the briefings.)

They gave us a big book that dealt with lots of parts of their plan. They intend to engage Deutsche for Admin Agent responsibilities on individual projects, BONY Mellon for back office responsibilities, and Morgan Stanley to manage the capital markets/funding of the loans. That all seemed intelligent to us. USRG will be responsible for the substantive work themselves (credit analysis and processing, substantive decisions on waivers and other things that require judgment). Tom Emmons was there and contributed actively to the presentation (it's still confidential that he is leaving HSH Nordbank and joining USRG).

They said all the right things about credit standards, and I have a 12-page Underwriting Guidelines document and a 58-page Transaction Processing Manual to review. We will also set up a "site visit" to examine their NY lending headquarters and look in more detail at their policies and procedures, probably using a consultant who is expert in reviewing financial institutions. We will do this in a manner designed so that we can use it for others who make similar proposals (which Jonathan appears to want to encourage).

They will soon be staffing up with project finance debt types to be able to handle the deal flow.

We spent some time on the following specific issues, which go beyond the intended principal focus of the meeting:

- Pricing. Their sample term sheet showed a blended interest rate of 8-10% (placeholder), and I observed that 8-10% seemed high for a deal that was 80% government-guaranteed, so we got into an extended discussion. They said that they were currently thinking in terms of the 7% range, but it was good for the subject to come up.

We pointed out that we will be called on to explain why the interest rate in any particular deal is reasonable and that we would need their help in providing support. They made the reasonable points that they are looking at very long tenors (fixed rate) and, especially for the smaller deals in their \$25-150 million target range, not much competitive financing. They could also have talked about the level of work involved in a \$25 million deal being about the same as that required for a \$150 million deal. They said that they want to have rates that are lower than the competition, as of course they would. They made the point that borrowers are more sensitive to duration than coupon, which is true, and we pointed out that with an 80% guarantee, borrowers are getting lower-than-market rates anyway and aren't as sensitive to rates as they would be if they were looking at a higher level of rates. Doug rightly observed that if there is competition, that is in general the best indicator of reasonable rates.

But the most interesting point is that their investors are looking for equity returns rather than debt returns and they have no current plans to back-lever their lending vehicle (the one that will hold the unguaranteed pieces). In terms of the unguaranteed interest rates they are thus reminiscent of people like TCW and other lenders with initials—lender-of-last-resort types.

As a reference point (not discussed with them), Blue Mountain (19.5 year debt) has a currently-estimated blended rate of 5.49% (based on a Treasury rate of 3.54% and T+150 for guaranteed, T+375 for unguaranteed for a blend of T+195).

In order for that rate to get to 7% with T+150 for the guaranteed, the unguaranteed rate would have to be T+1132, or a coupon of almost 17%. For senior debt. For BB and better credits.

We have to anticipate that this will be an issue for us and our reviewers, especially when anyone does the math. We didn't look at a specific calculation like this in the meeting, and we made supportive noises as they discussed the factors that justify their rates, but we made it clear that this was something that we were required to focus on. They also said that getting equity returns was very important to their business model.

(Peter: Let's make sure that Jonathan is aware of this interest rate issue, including the math.)

- I asked how they approached 1603 grant issues. They are generally inclined to keep excess cash in reserve and release it to equity over time rather than to use it to pay down debt, but they volunteered the idea of resizing the debt to meet coverage tests before releasing grant proceeds to equity. (You will remember that this is in the task force report. I didn't feature it in Wednesday's meeting, but someone (Erik?) asked about it.)

Peter should add his own observations.

Roger

*Roger McDaniel*  
*President*  
*Madigan Resources, LLC*

**From:** Jonathan Silver <jonathan@[REDACTED]>  
**Sent:** Thursday, March 25, 2010 11:15 AM (GMT)  
**To:** jimccrea [REDACTED]  
**Subject:** A

---

The change in kelly probably comes from the fact that I disinvited her to the credit committee meetings and told liebman I was doing so because there was unanimous consent that her presence was disruptive and unwelcome, and further said that, when I got back, we would need to discuss the possibility of replacing the examiner team because the environment was getting toxic. Rod may also have weighed in since sage has foundered, because the omb credit subsidy score, and the whole omb approach on that deal, was so absurd. Let's hope the changes last.

I think we should try to embrace the new kelly, not take advantage of it, but remain willing to cut her off. Iron fist, velvet glove.  
Jonathan Silver

[REDACTED]

**From:** James C McCrea <jimmccrea@[REDACTED]>  
**Sent:** Monday, May 31, 2010 2:37 PM (GMT)  
**To:** 'Silver, Jonathan' <[REDACTED]@hq.doe.gov>  
**Subject:** Principals Meeting

---

Jonathan –

I fear that you have completely lost control of these meeting. Based on the current slide deck, there are now an OMB meeting with S1.

Also, given what they are focused upon, and how they focus, Abengoa and Blue Mountain are dead. Abengoa for the 2 suggested solutions, either of which will kill the deal. As an aside, equity already has the first loss position in the case of a haircut and for us to have any shortfall, the inflation of the costs has to be more than 20% which is inconceivable given out vetting.

This program is hopeless.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

**From:** McCrea, Jim <[REDACTED]@Hq.Doc.Gov>  
**Sent:** Friday, September 3, 2010 12:23 AM (GMT)  
**To:** jimccrea@[REDACTED]  
**Subject:** FW: Error Message

---

-----  
From: James C McCrea[SMTP:JIMMCCREA@[REDACTED]]  
Sent: Thursday, September 02, 2010 8:23:11 PM  
To: McCrea, Jim  
Subject: RE: Error Message  
Auto forwarded by a Rule

Yup. Will do so. Won't bother with the cash flows. Will merely forward the e-mail forward to the team in response to Kelly. I have also alerted Jonathan that this may become a "policy" issue. I was uncomfortable with Kelly's tone which seemed like an incipient gotcha.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----  
From: McCrea, Jim [mailto:[REDACTED]@Hq.Doc.Gov]  
Sent: Thursday, September 02, 2010 8:14 PM  
To: jimccrea@[REDACTED]  
Subject: FW: Error Message

-----  
From: Roger McDaniel[SMTP:ROGERMCDANIEL@[REDACTED]]  
Sent: Thursday, September 02, 2010 8:14:32 PM  
To: McCrea, Jim  
Subject: RE: Error Message  
Auto forwarded by a Rule

I have cleared things out. Julie was now able to get an email through. I hate to say it, but since the message you sent me said that it wouldn't keep trying, you may need to resend the emails you wanted to get to me.

-----Original Message-----  
From: McCrea, Jim [mailto:[REDACTED]@Hq.Doc.Gov]  
Sent: Thursday, September 02, 2010 7:35 PM  
To: Roger McDaniel (rogermcdaniel@[REDACTED])  
Subject: Error Message

Delivery has failed to these recipients or distribution lists:

[REDACTED]

An error occurred while trying to deliver this message to the recipient's e-mail address. Microsoft Exchange will not try to redeliver this message for you. Please try resending this message, or provide the following diagnostic text to your system administrator.



Diagnostic information for administrators:

Generating server: [REDACTED]

rogercdaniel@ [REDACTED]

Original message headers:

Return-Path: <[REDACTED]@Hq.Doe.Gov>  
Received: from [REDACTED] by [REDACTED]  
(Sun Java System Messaging Server 6.2-8.04 (built Feb 28 2007)) id [REDACTED]; Thu, 02 Sep 2010 19:22:25 -0400 (EDT)  
Received: from [REDACTED] by mstr19.srv.hcvlny.cv.net (Sun Java System Messaging Server 6.2-8.04 (built Feb 28 2007)) with ESMTP id [REDACTED] rogercdaniel@ [REDACTED] Thu, 02 Sep 2010 19:22:25 -0400 (EDT)  
Received: from mailgate.doe.gov [REDACTED] by mta20.srv.hcvlny.cv.net (Sun Java System Messaging Server 6.2-8.04 (built Feb 28 2007)) with SMTP id [REDACTED] for rogercdaniel@ [REDACTED] (ORCPT rogercdaniel@ [REDACTED]); Thu, 02 Sep 2010 19:22:22 -0400 (EDT)  
Received: from Hub.Doe.Gov (unknown [146.138.215.136]) (using TLSv1 with cipher RC4-MD5 (128/128 bits)) (No client certificate requested) by mailgate.doe.gov (Tumbleweed MailGate 3.7.2) with ESMTP id 2ED351DF9EDE; Thu, 02 Sep 2010 19:22:17 -0400 (EDT)  
Received: from ESCF-EVS-01.doe.local ([146.138.215.70]) by ESCF-HUB-02.doe.local ([146.138.215.136]) with mapi; Thu, 02 Sep 2010 19:22:17 -0400  
Date: Thu, 2 Sep 2010 19:22:17 -0400  
From: "McCrea, Jim" <[REDACTED]@Hq.Doe.Gov>  
Subject: FW: Shepherds Flat LOC Cash Flows  
To: "Colvar, Kelly T." <[REDACTED]@omb.eop.gov>, "Saad, Fouad P." <[REDACTED]@omb.eop.gov>  
CC: "Kittell, Matthew" <[REDACTED]@hq.doe.gov>, "Schultz, Douglas" <[REDACTED]@hq.doe.gov>, "Ku, Ruth" <[REDACTED]@hq.doe.gov>, "Roger McDaniel" <[REDACTED]@ [REDACTED]>, "karine.khatcharian@ [REDACTED]" <karine.khatcharian@ [REDACTED]>, "boakley@ [REDACTED]" <boakley@ [REDACTED]>, "anthony.curcio@ [REDACTED]" <anthony.curcio@ [REDACTED]>  
Message-ID: <5BF9AF6A1992049BDEE1660F5A049E85B04F6E99B@ESCF-EVS-01.doe.local>  
MIME-Version: 1.0  
Content-Type: multipart/mixed; boundary="Boundary\_(ID\_5yHYRgYpCEuLirJOh9nPQ)"  
Content-Language: en-US  
Accept-Language: en-US  
Thread-topic: Shepherds Flat LOC Cash Flows  
Thread-index: ActK9Oepd9w9TJH5QumNrNMoJWfK6QAAJKk  
acceptlanguage: en-US  
X-WSS-ID: 0L857L6-05-0M2-02

X-M-MSG:  
X-MS-Has-Attach: yes  
X-MS-TNEF-Correlator:

Jim

Jim McCrea  
Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  


**From:** James C McCrea <jimmccrea@[REDACTED]>  
**Sent:** Monday, May 31, 2010 6:27 PM (GMT)  
**To:** 'Richardson, Susan' <[REDACTED]@hq.doe.gov>  
**Subject:** RE: Draft slides for tomorrow's principals meeting

---

Don't think I asked if you are on board. I am trying to be careful of and respectful of the recusal. Even when you ignore the Blue Mountain slides, the Principals slides present an OMB view of the world and ignore our arguments completely. Hardly a balance in what is presented and the draft slides were already sent to the WH

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

---

**From:** Richardson, Susan [mailto:[REDACTED]@hq.doe.gov]  
**Sent:** Monday, May 31, 2010 2:19 PM  
**To:** 'jimmccrea@[REDACTED]'  
**Subject:** Re: Draft slides for tomorrow's principals meeting

Understood. Actually was reacting to earlieir email asking ruth if I am on bd. Am deferring to alvin.

---

**From:** James C McCrea <jimmccrea@[REDACTED]>  
**To:** Richardson, Susan  
**Sent:** Mon May 31 14:14:40 2010  
**Subject:** RE: Draft slides for tomorrow's principals meeting

Understand your recusal. Hard though when it is embedded in a big presentation. I will try to be very careful.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

---

**From:** Richardson, Susan [mailto:[REDACTED]@hq.doe.gov]  
**Sent:** Monday, May 31, 2010 2:11 PM  
**To:** 'jimmccrea@[REDACTED]'  
**Subject:** Re: Draft slides for tomorrow's principals meeting

J re blue mt, pls note that I am still recused and not participating in OMB issues

---

**From:** James C McCrea <jimmccrea@[REDACTED]>  
**To:** Silver, Jonathan; Frantz, David; Richardson, Susan; Schultz, Douglas; Westerheim, Ove; Fox, Lucian  
**Sent:** Mon May 31 10:30:59 2010

JM\_00076570

**Subject:** RE: Draft slides for tomorrow's principals meeting

The slides need a careful scrubbing for accuracy as I have already noted, based on a quick review, some errors. Also, the slides have a heavy OMB bias in how they tell the story.

Jim

---

James C. McCrea

JAMES McCREA & ASSOCIATES LLC

---

**From:** Silver, Jonathan [mailto: [REDACTED]@hq.doe.gov]

**Sent:** Monday, May 31, 2010 10:22 AM

**To:** Frantz, David; Richardson, Susan; Schultz, Douglas; Westerheim, Ove; Fox, Lucian; 'jimmccrea@ [REDACTED]

**Subject:** Fw: Draft slides for tomorrow's principals meeting

Here are the slides jeff proposes to use at the chu orszag mtg tomorrow. Scheduled for 2:30. Pls plan to attend.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

---

**From:** Liebman, Jeffrey B. < [REDACTED]@omb.eop.gov>

**To:** Aldy, Joseph E. < [REDACTED]@who.eop.gov>; Silver, Jonathan

**Cc:** OConnor, Rod; Green, Melissa G. < [REDACTED]@omb.eop.gov>

**Sent:** Mon May 31 09:26:24 2010

**Subject:** Draft slides for tomorrow's principals meeting

Joe and Jonathan,

Here are draft slides for tomorrow's meeting. I need to learn more from my team about the issue on slide six and the last bullet on the last slide - I am not sure whether either of those need to be raised for principals tomorrow. As always, happy to receive edits/comments.

Jeff

JM\_00076571

# DOE Title XVII Loan Guarantee Program

Principals Meeting (DRAFT)

June 1, 2010

Agenda:

- Manufacturing solicitation
- Abengoa transaction
- Conditional commitment timeline
- Blue Mountain transaction policy issues

## Loan Guarantee Manufacturing Solicitation

- **Issue:** Should the Program target additional energy manufacturing projects, or focus on clean energy generation?

### Considerations:

- Are direct loans / loan guarantees (vs. 48c tax credits) the best way to support manufacturing?
- In addition to renewables component manufacturing, should we also include transmission manufacturing?
- Should we restrict manufacturers from accessing both loans and tax credits? (this may rule out many projects)

- **Context:**

- The current project pipeline is unlikely to use up the ~\$3.9 billion in credit subsidy remaining under 1705.
- Component manufacturing related to renewable energy systems is permitted under 1705, and solar and wind manufacturing projects (e.g. Solyndra, Nordic) have been processed to date.
- GE, Mitsubishi Heavy Industries, Barclays, other major financial institutions, and the National Association of Manufacturers have all expressed interest to DOE in loan support for manufacturing.
- \$2.3 billion of ARRA funds have been awarded for energy-related manufacturing through the Section 48c manufacturing tax credit program; an additional \$5 billion has been requested in the 2011 Budget.

- **Options:**

1. Issue solicitation for component manufacturing projects specifically related to renewable energy (and exclude components related to transmission and nuclear projects)
2. Do not issue the new manufacturing solicitation; focus instead on generation, providing demand for components
3. Issue broad solicitation across various sectors / segments (e.g. manufacturing, biofuels, etc.) all at once.

## Abengoa – Project Overview

Abengoa Solar is seeking a 28 year, \$1.45 billion, 100% guaranteed loan for a 250MW concentrating solar power facility in Arizona.

### Project Summary Information

- Sponsor Name: Abengoa Solar Inc.
- Project / Borrower: "Solana" Project Co. / Owner Trust
- Location: Arizona (70 miles west of Phoenix)
- Project Type: Concentrating Solar (Trough)
- Short Description: 250 MW parabolic trough generation facility with 6 hour Thermal Energy Storage system
- Project completion: Expected January 2013 (based on June 2010 closing)

### Project Financing & Loan Information

- Project Size: \$1.976 billion
- Loan Program: Section 1705 (Recovery Act)
- Loan Type: 100% loan guarantee (FFB direct loan)
- Loan Amount (and %): \$1.45 billion (\$1.36 billion face value)  
(73% of Project Costs pre-tax grant)
- Key Loan Terms: 28 years term, 3 year principal grace period
- Off-take: 30 year Power Purchase Agreement with Arizona Public Service (BBB-)
- Loan Status: CRB meeting June 2, 2010



### Government Support

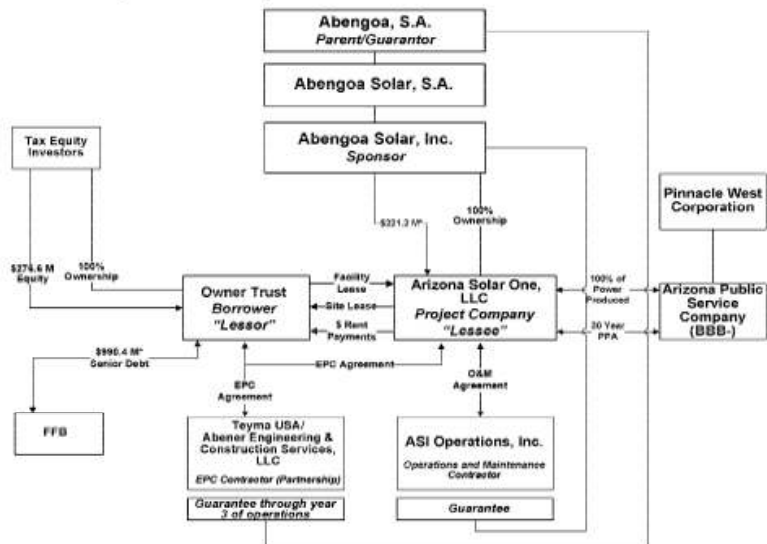
- 100% Guarantee on FFB Loan
- Credit Subsidy paid by DOE (1705)
- Estimated \$569 million 1603 cash grant (30% of project costs)
- Arizona Renewable portfolio standards

### Policy Metrics noted by DOE (preliminary)

- Innovative technology: Innovative thermal storage supporting renewable power
- Emissions reductions: 475,000 tons GHG avoided
- Jobs Created: 1,600 in construction, 80 permanent
- Cost: ~\$7,060 per kW of capacity, Thermal Energy System estimated to improve capacity factor to 41%, lowering per kWh cost

## Abengoa – Leveraged Lease Structure (1)

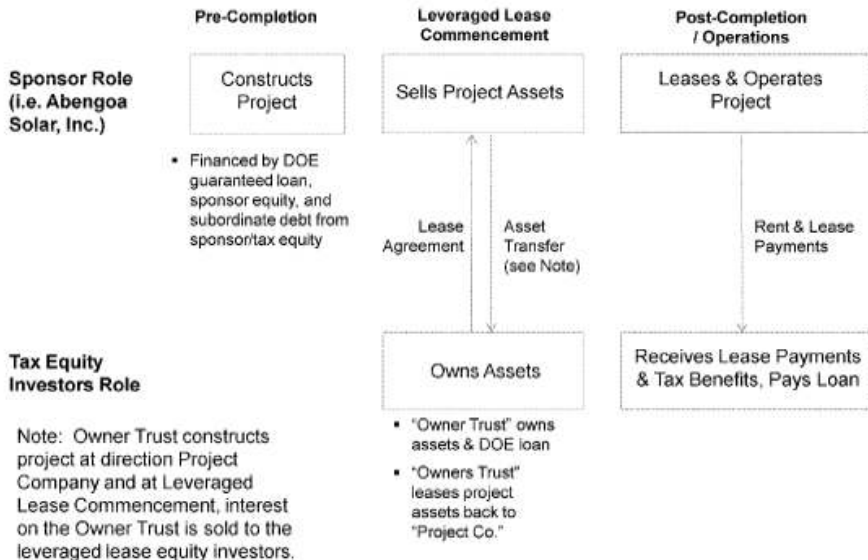
The Solana project uses a Leveraged Lease structure designed to allow tax equity investors to capture the project's tax advantages: Tax equity investors (through an Owner Trust) lease project assets to a Project Co. which operates the facility.





## Abengoa – Leveraged Lease Structure (2)

In the Leveraged Lease structure, tax equity investors (through an Owner Trust) lease project assets to a Project Co. (owned by Abengoa) which operates the facility. The Owner Trust is the borrower and recipient of project tax benefits.



Note: Owner Trust constructs project at direction Project Company and at Leveraged Lease Commencement, interest on the Owner Trust is sold to the leveraged lease equity investors.

## Abengoa – Policy issues (1)

### ▪ Leveraged lease structure

- Structure is common in energy project finance, but increases complexity / remoteness and tax equity investors have different time-lines and incentives than FFB/DOE.
- Some concerns raised because IRS ruled against some aggressive variants.
- Treasury specifically concerned about one atypical provision – fair market value determination related to “option to buy equipment.”
- DOE’s transaction counsel notes that the terms of this lease “reflect a fairly traditional leveraged [lease] structure.”

Solution: Require private letter ruling from IRS on leverage lease structure prior to closing.

### ▪ Related party contracts

- The project’s fixed price engineering, procurement, & construction (EPC) contract is with another Abengoa subsidiary, and represents 85% of capital costs (~\$1.7 billion).
- The size of the 1603 cash grant and DOE guarantee are both directly dependent on this related party contract pricing, raising “arm’s length” concerns about inflated prices and tax benefits.
- DOE notes that equity bears the first 20% shortfall in the 1603 grant far exceeding any realistic disallowance due to inflation.

Solutions: OMB will adjust credit subsidy to account for risk that Treasury ultimately disallows a portion of the cash grant claim. Treasury suggests introducing a contract term to ensure a fixed pay-down of the FFB loan when the tax grant is received, regardless of the ultimate size of the grant. Equity would thereby bear the risk associated with any costs claimed for cash grant purposes that were ultimately determined to be inflated.

## Abengoa – Policy issues (2)

- **Sponsor Equity Contribution & Rewards**

- The Sponsor's equity contribution is expected to be ~10% of total capitalization pre-completion, and ~15% post-construction; additional equity is provided by tax equity investors.
- Sponsor equity will be invested only in the lessee (Project Co.)
- The Owner Trust, which DOE has direct recourse to as Borrower, will be 100% owned by tax equity investors post-completion.
- Should there be minimum levels of sponsor equity in projects?

	Construction Phase		Commercial Operations	
	Sources of Construction Funding	%	Capital Structure at COD	%
DOE Loan	1,445.6	73.2%	990.4	66.6%
Tax Equity	0.0		276.6	18.6%
Tax Equity Sub-Debt	211.3	10.7%	0.0	
Sponsor Equity	205.0	10.4%	221.2	14.9%
Sponsor Sub-Debt against 20% ITC grant	113.8	5.8%		
<b>Total</b>	<b>1,975.7</b>		<b>1,488.2</b>	

COD = Commercial Operations Date

- **Application of Tax Grant**

- \$455 million (80% of tax grant) pays down 31% of DOE Loan
- \$114 million (20% of tax grant) pays down 100% of sponsor sub-debt, 36% of sponsor contribution

- Should there be guidelines for how tax grant proceeds are applied? (e.g. pro-rata with contribution, 20% max, etc.)

DOE notes that the recommendations on previous slide and any changes from this slide are expected to kill the Abengoa transaction

## Processing Conditional Commitments (Gate 2)

### Flag and Discuss Policy Issues and Non-Standard Terms Early

- Provide short summary of each project upon decision to move to the origination phase.
- Develop standard loan terms & conditions (simplifies processing; improves DOE negotiating position) although DOE notes that while desirable, doing so is a near impossibility and will have significant adverse effects on the program as project finance transactions have always been one off transactions due to their unique nature.
- Discuss projects early – flagging non-standard terms & conditions or policy concerns although DOE notes that, in many cases, it has been blindsided by the policy concerns identified by OMB and Treasury such as leveraged lease issues when the existence of a leveraged lease has been mentioned many times over months.

### Conditional Commitment Timeline (in business days, assuming policy issues addressed earlier)

- Day 0: DOE distributes all agreed upon-materials (from the checklist of February 25, 2010) to OMB/Treasury/FFB. Twenty day clock begins when all materials are received.
- Day 2: DOE briefs OMB/Treasury/FFB
- Day 5: OMB/Treasury/FFB send consolidated list of questions
- Day 9: DOE responds to all questions
- Day 10 – Day 13: OMB and DOE work to resolve any remaining policy and credit scoring issues.
- Day 14 – Day 16: Policy-level arbitration, if required.
- Day 17: DOE provides revised Credit Subsidy Cost files and transmittal language to OMB
- Day 19: OMB approves credit subsidy cost and transmittal; Treasury confirms consultation.
- Day 20: Credit Review Board meets on transaction

## Geothermal transactions overview

DOE is considering a direct loan and an 80% loan guarantee for two geothermal projects:

- **Neal Hot Springs:** Sponsored by US Geothermal, is seeking a 100% guaranteed \$102.2 million loan for a 20.4 MW project for an innovative (lower-temperature resource) geothermal project in Nevada, serving Idaho Power
  - Innovative aspect may make more geothermal resources financially viable
  - No policy concerns
  
- **Blue Mountain:** \$282 million, 49.5 MW project sponsored by Nevada Geothermal Power
  - 19.5 year, \$98.5 million loan financed by Hancock with an 80% DOE loan guarantee.
  - First partial guarantee offered under the Financial Institution Partnership Program (FIPP).
  - “Take-out” loan – Title XVII used to re-finance rather than construct a new project.
  - Policy concerns detailed on next slide

## Blue Mountain issues:

- **Re-financing vs. Supporting New Projects:**
  - Project is built and operational.
  - Most of loan will be used to repay short-term, high cost, private sector loan
  - Title XVII was intended to support new projects; refinancing does not create significant new investment.
  - Approach invites other projects to seek low-cost refinancing.
  - DOE notes that this is not a refinancing but rather a take out of a bridge loan and that its loan guarantee frees significant loan making capacity at John Hancock
  
- **Davis Bacon:**
  - Construction did not pay Davis Bacon wages
  - Davis Bacon would have applied if 1705 funds were used for construction.
  - May create a precedent
  - DOE notes that retroactive application of David Bacon creates issues.
  
- **Technical default:**
  - The project did not comply with a short-term loan requirement in March 2010 (to either re-finance or maintain certain financial ratios);
  - Received waiver from lender, but raises creditworthiness and optics concerns.
  - DOE notes that default is technical, not significant, and resulted from delays in completing the proposed financing.
  
- **Amending FIPP Solicitation Terms**
  - DOE seems to be suggesting new voting rights for FIPP lenders in the Blue Mountain documentation
  - The specific changes (which have not been vetted outside DOE) may be inconsistent with FIPP solicitation terms and might adversely impact DOE's control in a default]
  - DOE only proposes amending FIPP for clarity as a result of the OMB concern; DOE has conducted a legal review of the transaction and believes that it is fully compliant with the FIPP solicitation in that transaction is structured to include "usual and customary provisions that a reasonable and prudent lender would ordinarily require."

**From:** James C McCrea <jimmccrea@[REDACTED]>  
**Sent:** Tuesday, April 20, 2010 2:00 AM (GMT)  
**To:** 'O'Rourke, Peter' <[REDACTED]@Hq Doc Gov>  
**Cc:** 'Roger McDaniel' <[REDACTED]@optonline.net>  
**Subject:** USRG Proposal

---

Peter –

I just went through the USRG pitch. I thought that most of it was irrelevant and the overly focused on structuring rather than how transactions themselves would really get done. All in all, I found it to be not very compelling and a whole host of approval issues are readily apparent. Also, there are huge conflicts of interest on the USRG side in the roles some of those guys play roles in the management of companies that I believe are applicants to LGPO. It will be very hard to give them access to the program through this structure while still allowing them access to LGPO outside of this program but that is a topic that the lawyers will have to address more carefully given concerns about level playing fields. Plus, I am quite sure that USRG and I don't mean the same thing when we use the words "cross collateralization."

There will be a good bit to talk about tomorrow and I will bring my mark up for you. However, I don't really see the merit of what they are proposing and think that if we were to proceed, implementation will be extremely difficult. I foresee significant issues with both Treasury and OMB in that regard. I can see both OMB and Treasury being extremely unexcited by all the structuring that is going on in the proposal. It is hard enough to run a conventional transaction based project finance financing operation from within the government. Layering on the structuring will kill it before it gets off the ground in my view. That kind of structuring may have a place in the private sector but is unlikely to find favor in government.

If DOE were to think seriously about something like this, I think that we would be a lot better off thinking about funding a pool with an FFB loan and then running an application program open to transactions based on a certain range of technologies and transaction sizes with certain very specific requirements such as equity percentages etc.

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]

**From:** McCrea, Jim <[REDACTED]@Hq.Doe.Gov>  
**Sent:** Wednesday, June 9, 2010 12:56 PM (GMT)  
**To:** jimccrea@[REDACTED]  
**Subject:** FW: S-1 Briefing memo for Orszag/Browner mtg  
**Attach:** S1 Meeting with Orszag and Browner\_edited hsl.doc

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-----  
**From:** Otness, Chris  
**Sent:** Wednesday, June 09, 2010 8:56:07 AM  
**To:** Frantz, David; McCrea, Jim  
**Subject:** FW: S-1 Briefing memo for Orszag/Browner mtg  
**Auto forwarded by a Rule**

Chris Otness  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

---

**From:** Lee, Hannah  
**Sent:** Tuesday, June 08, 2010 6:08 PM  
**To:** Otness, Chris; Winters, Matthew; Levey, Brian; Samy, Kevin  
**Subject:** RE: S-1 Briefing memo for Orszag/Browner mtg

With my edits. Attached is what we are including if its okay with you. Thank you for all the changes.

Hannah Lee

[REDACTED]@hq.doe.gov | [REDACTED]

---

**From:** Otness, Chris  
**Sent:** Tuesday, June 08, 2010 6:03 PM  
**To:** Winters, Matthew; Lee, Hannah; Levey, Brian; Samy, Kevin  
**Subject:** RE: S-1 Briefing memo for Orszag/Browner mtg

Slight change in Nuclear Supplemental numbers.

<< File: S1 Meeting with Orszag and Browner (5) (2).doc >>

Chris Otness  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

---


**From:** Winters, Matthew



**Sent:** Tuesday, June 08, 2010 5:53 PM  
**To:** Lee, Hannah; Levey, Brian; Samy, Kevin  
**Cc:** Otness, Chris  
**Subject:** S-1 Briefing memo for Orszag/Browner mtg

Attached, with attachments. Sorry for the delay.

<< File: bluemountain.pdf >> << File: Policy PaperCBTL- FE draft4h (2) [2].doc >> << File: S1 Meeting with Orszag and Browner (5).doc >>

Matthew A. Winters  
Senior Advisor, Loan Programs  
U.S. Department of Energy  




## Meeting with Peter Orszag and Carol Browner

Room 106, EEOB

3:00 pm – 4:00 pm on Wednesday, June 9, 2010

Meeting requested by OMB and DOE

Briefing prepared by Jonathan Silver (██████████) and Chris Otness (██████████)

### EVENT

You will be meeting with Peter Orszag, Carol Browner, Rod O'Connor, Jeffrey Liebman, Jonathan Silver and additional staff. This is one in a series of meetings between principals at DOE and OMB to work through issues that come up in the Loan Programs. Mary Miller, Assistant Secretary for Financial Markets at the Department of Treasury, has also been invited to join the meeting so that Treasury can be consulted in real time.

In this meeting, you will work with Orszag and Browner to find consensus on the following proposed agenda items (see program notes below for details):

**1. Coal to Liquids Policy re: Medicine Bow**

LGPO has had a large (\$1.75B) CTL project in-house for over a year. The transaction can be structured well and would serve as a marquis project in the clean coal space. It has universal support in Wyoming. Carol Browner has opposed coal-to-liquid as a strategy, but asked for a DOE policy paper on it. FE supports the project and drafted the policy, and you signed off on it (the policy paper is attached). Browner has had the paper for several months. We want to reach resolution on the policy and, ideally, be able to do the deal.

**2. Blue Mountain**

Blue Mountain is a geothermal project and LGPO's first FIPP deal. It is well-structured and a good credit. The deal structure, however, raised two questions: one on take-out financing, and one on Davis-Bacon. The deal contemplates replacing high-cost mezzanine debt with longer-term, lower-cost debt. Take-out financing has been raised as a policy issue, although the short-term financing in the transaction was always intended to be replaced. We estimate the private capital market cost of capital for the take-out at 7.5-8.0%. The mezzanine piece is at 14%. LGPO also obtained a waiver from the Dept. of Labor of the Davis-Bacon provisions, but OMB felt that might not be sufficient. We would like to be able to take this deal to CRB.

**3. Abengoa**

Abengoa is a large-scale solar project financed by the U.S. arm of a Spanish company. There have been policy questions raised about the use of a leveraged lease in the deal structure. This issue will have been resolved by the time of the meeting and there is a CRB meeting before this meeting, at which Abengoa will be discussed. Earlier, there was some discussion about U.S. companies having difficulty accessing the Spanish market. This no longer seems to be an issue.

**4. Kucinich Update**

OMB will report on their recent meeting with Congressman Kucinich



## 5. Nuclear Supplemental Update

This is an open-ended discussion of the timing and sequencing of our nuclear loan guarantees. The issue is that we will be ready to offer a conditional commitment to Unistar before we know for sure whether or not there will be a supplemental to support the STP project. Without the supplemental, the STP transaction could collapse.

**Press: Closed**

### LOGISTICS

- This meeting will take place in EEOB and there are no other formal logistics

### PROGRAM NOTES

- **Attendees:**
  - Peter Orszag
  - Carol Browner
  - Rod O'Connor
  - Dan Poneman
  - Jeffrey Liebman
  - Jonathan Silver
  - Mary Miller – Assistant Secretary for Financial Markets – Department of Treasury
  - *Additional Staff TBD*
- **Topics that you can expect to address in this meeting include the following five on the next pages:**



## I. Coal to Liquids Policy and Medicine Bow

**ISSUE:** The Loan Programs Office has had a large (\$1.75B) loan guarantee request for a coal-to-liquids project in-house for over a year.

\*Please note: Browner has been ambivalent about coal-to-liquids projects in general and, the President (who originally supported coal-to-liquids as a Senator) announced his support only for those CTL projects which emit at least 20% less life-cycle carbon than concentrated fuels on the campaign. This project does not meet that goal because it uses no bio-mass inputs, but it is the newest generation of clean coal technology.

**PROJECT BACKGROUND:** The project, called the Medicine Bow Fuel and Power LLC is located in southeast Wyoming. It uses mine mouth low-sulfur, low-methane coal as a feedstock to produce gasoline that is substantially cleaner than the U.S. standard (96% less sulfur and 51% less benzene than emitted by the domestic gasoline Medicine Bow will displace). Medicine Bow's gasoline will supply the Denver/ Front Range market, which has stringent air pollution standards, comparable to those in the Los Angeles basin. The project is ready to begin construction immediately and will produce gasoline very competitively.

Medicine Bow will sequester its CO<sub>2</sub> via Enhanced Oil Recovery (EOR), which is a proven strategy for reducing GHG emissions. CTL with EOR reduces emissions by reducing the need for heavy, GHG-intensive, imported oil. CO<sub>2</sub> sequestered via EOR also produces light, sweet, low-polluting domestic crude oil, which further reduces the need for dirty imported oil. Finally, this proven source of domestic crude oil is produced onshore.

**DOE's ACTIONS:** The Office of Fossil Energy drafted, and the Department has submitted to the White House for consideration, a Coal-to-Liquids (CTL) policy (attached). The draft policy recommends that CTL projects incorporating carbon capture and storage (CCS) should be included as part of a Strategic Technology Portfolio for decarbonizing fossil energy and decreasing oil dependency ("storage" includes geologic sequestration and enhanced oil recovery [EOR]). Methanol-to-Gasoline (MTG) technology with CCS, combined with 8-20 percent of biomass added to bituminous coal, has the potential to achieve lifecycle greenhouse gas (GHG) emissions of 20-41 percent below petroleum-derived gasoline.

Even without the addition of biomass, MTG technology with CCS has the potential to achieve lifecycle GHG emissions several percentage points below petroleum gasoline as well as lower overall pollutant emissions. Commercial CTL with CCS projects, which possess these strong environmental benefits, are eligible under the DOE Loan Guarantee Program (LGP).



## 2. Blue Mountain

**ISSUES:** At the last meeting, the group discussed several issues related to the Blue Mountain transaction. Specifically, we were asked:

1. At what rate the private capital markets would finance the mezzanine piece of the transaction.
2. Whether Davis Bacon would be an issue (Joe Aldy was to take the lead in reviewing the Department of Labor waiver which the Loan Program Office obtained).

### RESPONSES:

**Q1: At what rate would private capital markets finance the mezzanine piece of the transaction? (i.e. What would the pricing be in the market if full term financing was available to the project)?**

**A: Approximately 7.5-8.0%**

- **The all-in pricing** for the Blue Mountain Project with the DOE guarantee is Treasury plus 195 basis points. Because of this pricing competition, the guarantee will result in lower pricing for the projects which is transferred to the borrower and ultimately the rate payers through lower, more competitive rates.
- **In the current market**, the pricing for BB type project finance debt is expected to fall in a range of 325 basis points to 475 basis points, which is based on nonpublic information of recent project finance transactions and observable high-yield spreads.
  - o Note: Comparable publicly available pricing information for BB project finance paper is not readily observable given the lack of an active secondary market for such assets. Publicly available market reference rates, such as a high-yield (or similar) index, may provide another pricing benchmark from which adjustments could be made
- The calculation provided to OMB in response to a question shows that the lower rate provided by a DOE guarantee only increased the internal rate of return for the Project from approximately 4 percent to approximately 5 percent. While rates are important, the main value of the DOE guarantee for conventional transactions in the FIPP is extended tenor. The tenor allows for long-term lending in the renewable energy market at a scale that is not possible without the DOE guarantee.

**Q2: Will DOL's waiver of the application of the Davis Bacon Act be sufficient?**

**A: We believe that the waiver should be sufficient, but this will be the subject of discussion with Carol Browner and her team at this meeting.**

- **Background on DOL's Waiver:** DOL granted a waiver of retroactive application of the Davis-Bacon Act in respect of construction in the Blue Mountain project occurring prior to the closing date of the loan guarantee (Davis Bacon Summary (Waiver Letter from DOL) is attached). Such a waiver was granted on the basis that "it is necessary and proper in the public interest to prevent injustice and undue hardship." See DOL Letter from Deputy Administrator, Wage and Hour Division dated May 27, 2010.



- Note: any broad, retroactive application of the Davis- Bacon Act to Section 1705 Recovery Act projects could have adverse programmatic consequences for the Loan Guarantee Program.
- **Summary of DOL Authority:**
  - The Secretary of Labor has always had broad authority to promulgate appropriate standards, regulations, and procedures with respect to the enforcement of labor standards under Federal and federally assisted contracts, including labor standards under the Davis-Bacon Act. The Secretary of Labor's discretion to grant waivers of retroactive application of the Davis-Bacon Act and the standards the Secretary of Labor uses to do so are set out in a 25-year old regulation of the Department of Labor.
  - As the regulation reflects, the Secretary of Labor clearly determined that strict adherence to the retroactive application of the Davis-Bacon Act is not appropriate in certain circumstances and may be waived in DOL's broad discretion.
- **Reasons for LGPO's Support of DOL's Waiver:**
  - Construction on the Blue Mountain project began well before the Recovery Act was enacted.
  - In the course of consultations between DOL and DOE's labor attorneys on the Blue Mountain project, the nature of the construction work in the Blue Mountain project was discussed in detail, including the fact that \$80 million of the \$98.5 million loan would be used to repay a portion of the mezzanine bridge financing at a holding company level and that the balance of the loan would be financing the remaining drilling work and filling up reserves.
  - The purpose of Section 1705 is to promote a new generation of renewable energy projects by making adequate capital available for their construction. The FIPP program was established in furtherance of this energy policy and core concern for DOE of promoting renewable energy projects, including such projects using commercial technology.



### 3. Abengoa

**ISSUES: There are two outstanding issues on:**

1. Leverage lease structure and
2. Dispute between American solar companies and the Spanish government

**PROJECT BACKGROUND:** Abengoa Solar has requested a \$1.45 billion Loan Guarantee (including capitalized interest). It is a 250MW net, concentrating solar power generating facility employing solar parabolic trough technology and six-hour thermal energy storage.

**RESPONSE:**

**1. Leverage Lease Issue:**

DOE is engaged in discussions with Treasury regarding its concern about the leveraged lease structure, despite the description of it by Debevoise, DOE's counsel as "an extremely traditional lease." Treasury has requested that DOE make either a Private Letter Ruling ("PLR") or strict adherence to the IRS Lease Guidelines a condition precedent to closing, neither of which are customary. Lessors generally rely on opinions of their tax counsel and are not indemnified by the lessee for disallowance. After discussion with Debevoise, the DOE team believes that either Treasury approach would cause significant issues for Abengoa due to schedule, economic and uncertainty issues of a magnitude to seriously threaten this well structured transaction. DOE has proposed to Treasury that a "will" opinion (strongest opinion level) from lessor's counsel should allay Treasury concerns while allowing Abengoa more flexibility. At this time, discussions with Treasury continue. It is expected that the transaction will be presented to CRB on Wednesday.

**2. Dispute between American solar companies and Spanish government**

An announcement that DOE will provide a loan guarantee to Abengoa will likely elicit criticism from some members of Congress (particularly Sens. Bingaman and Reid) and the press who believe that the Spanish government has unfairly treated American renewable energy companies seeking to access the Spanish market. Critics may point specifically to the difficulties that SolarReserve LLC, a California-based solar thermal company, and at least two other American companies (NextEra and Infinia Solar), have faced in gaining access to Spain's favorable feed-in-tariff treatment on equal footing with Spanish energy providers. SolarReserve has enlisted in its efforts the many trade advocacy resources of the U.S. government (including a March 15, 2010 letter from YOU to the Spanish Minister of Industry, Tourism, and Commerce in March 2010), but it has not yet been successful in gaining the access it seeks. We understand from U.S. trade officials, on the ground in Madrid, that there is a reasonable prospect that this issue will be resolved favorably for SolarReserve, but that we may not know for several weeks or months. Despite this uncertainty, Browner's office has informed us that they would be comfortable with an Abengoa announcement at this time. Should Abengoa be approved at CRB, we will be prepared with talking points to address any criticism or questions that may arise in connection with the announcement of the deal.



**NOTE Re: Credit Subsidy:** DOE understands informally that OMB's credit subsidy cost range is 10% - 20% or \$136 - \$272 million. This compares to 11.29% - 17.8% (\$153.6 - \$242.1 million) submitted by DOE to OMB for approval. Unless OMB's reasoning requires a rebuttal, DOE is prepared to accept the 10-20% credit subsidy cost range when it is made formal.

#### 4. Kucinich Update

**ISSUE:** Peter Orszag and Rep. Kucinich met about two weeks ago to discuss the Congressman's request for additional information on our credit scoring process and the specific numbers around Vogtle.

Orszag suggested that Rep. Kucinich ask either the GAO or CBO to do an audit of the process, which would get around some of the potentially significant confidentiality issues we have raised.

Rep. Kucinich's staff said they might be interested in that approach as long as we gave those groups all the data and enough information to allow them to calculate, and opine on, what the right credit score should be.

**RESPONSE:** DOE and OMB lawyers will talk this week to discuss next steps. Kucinich's letter addressed to you on this topic is now closed per General Counsel's Office.

#### 5. Nuclear Supplemental Update

**ISSUE:** As you can see from the chart below, without the supplemental nuclear authority that we have requested from Congress, we will be unable to finance all of the nuclear projects in our due diligence pipeline. In light of this shortfall, the uncertainty surrounding our supplemental request creates a particular problem with respect to the timing of the Unistar/Constellation project vis-à-vis the STP nuclear project (another promising nuclear project currently in due diligence).

As you are well aware, DOE is getting significant pressure from Leader Hoyer to move ahead quickly with the Unistar/Constellation project, and we are close to being in a position to do so (assuming CRB approval). However, if we announce the deal before the supplemental appropriation has been approved, the STP nuclear project--which has its own strong Congressional and other supporters--may well collapse. This will happen because, upon announcement of the deal, it will immediately become apparent to the markets that LGP no longer will have sufficient resources to fund STP's project, and STP's stock price will drop precipitously. It is our understanding from conversations with STP's CEO that, in such a scenario, STP will have no other choice but to scrap the proposed nuclear project in an effort to revive its stock price.

**RESPONSE:** We hope to reach a consensus with OMB and the White House on the proper programmatic and political course of action to take to address and, hopefully, avoid this potential problem.





**Title XVII Nuclear Power Projects**  
(in \$ millions)

<b>Project</b>	<b>Loan Guarantee Request</b>	<b>Loan Guarantee Request without CI</b>	<b>Loan Guarantee Authority Remaining (Needed)</b>
			18,500
Southern (Vogtle)	8,326	7,400	11,100
Unistar (Calvert Cliffs)	8,700	7,600	3,500
NINA (STP 3&4)	7,300	5,900	(2,400)
SCE&G (Summer)	5,707	5,575	(7,975)
<b>Total</b>	<b>30,033</b>	<b>27,875</b>	
Additional LG Authority needed for just STP 3&4			3,800
Additional LG Authority needed for just SCE&G			2,075

**ATTACHMENTS**

1. Coal to Liquids Policy Paper
2. DoL Waiver Letter

**From:** McCrea, Jim [REDACTED]@Hq.Doc.Gov>  
**Sent:** Monday, October 25, 2010 1:18 PM (GMT)  
**To:** [REDACTED]  
**Subject:** FW: potus memo attached  
**Attach:** POTUS MEMO.docx

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**From:** Silver, Jonathan  
**Sent:** Monday, October 25, 2010 9:18:14 AM  
**To:** McCrea, Jim; Frantz, David  
**Subject:** FW: potus memo attached  
**Auto forwarded by a Rule**

What went over to the WH at the end of last week in prep for tomorrow's mtg with Potus. I think it speaks for itself.  
No emails back please.

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
[REDACTED]

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**From:** Hurlbut, Brandon  
**Sent:** Monday, October 25, 2010 8:44 AM  
**To:** Silver, Jonathan  
**Subject:** FW: potus memo attached

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**From:** Owens, Missy  
**Sent:** Friday, October 22, 2010 11:49 AM  
**To:** Utech, Dan G.; Hurlbut, Brandon  
**Subject:** FW: potus memo attached

Here you go Dan, let me know if you have questions I can help with

**From:** McCrea, Jim [REDACTED]@Hq.Doc.Gov>  
**Sent:** Monday, October 25, 2010 5:13 PM (GMT)  
**To:** [REDACTED]  
**Subject:** FW: Need decks from last week's meeting

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**From:** Winters, Matthew  
**Sent:** Monday, October 25, 2010 1:12:39 PM  
**To:** McCrea, Jim  
**Subject:** RE: Need decks from last week's meeting  
**Auto forwarded by a Rule**

Thank you.

-----  
**From:** McCrea, Jim  
**Sent:** Monday, October 25, 2010 1:12 PM  
**To:** Winters, Matthew  
**Subject:** RE: Need decks from last week's meeting

<< File: Baldwin OMB Presentation\_Final\_19Sep2010.ppt >>

Jim

James C. McCrea  
Contractor & Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

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**From:** Winters, Matthew  
**Sent:** Monday, October 25, 2010 1:02 PM  
**To:** McCrea, Jim  
**Subject:** FW: Need decks from last week's meeting

Jim-

Could you send me the Baldwin deck that went over to OMB? Thank you.

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**From:** Hurlbut, Brandon  
**Sent:** Monday, October 25, 2010 1:01 PM  
**To:** Winters, Matthew  
**Subject:** RE: Need decks from last week's meeting

Can you get me Baldwin?

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**From:** Winters, Matthew  
**Sent:** Monday, October 25, 2010 12:20 PM  
**To:** Hurlbut, Brandon  
**Subject:** FW: Need decks from last week's meeting

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**From:** McCrea, Jim  
**Sent:** Monday, October 25, 2010 12:19 PM  
**To:** Winters, Matthew  
**Subject:** RE: Need decks from last week's meeting

<< File: 35-OMB Transaction Preview Bishop Hill 101510 b Final Version.ppt >> << File: 10-Presentation.ppt >> << File: 23-Hudson Ranch\_OMB-Treasury Transaction Preview\_101510.ppt >> << File: 16-Ormat Nevada\_OMB-Treasury Transaction Preview\_101510.ppt >> << File: 30-OMBTransPreview\_SpringValley101210 - Final Version.ppt >>

Jim

James C. McCrea  
Contractor & Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  



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**From:** Winters, Matthew  
**Sent:** Monday, October 25, 2010 11:53 AM  
**To:** McCrea, Jim  
**Subject:** Need decks from last week's meeting  
**Importance:** High

Jim-

Could you please send me the final powerpoint decks for the 5 1705 projects that we discussed at last week's White House mtg (Diamond Green and the 4 FIPP deals)? Thank you!

Matt

Matthew A. Winters  
Senior Advisor, Loan Programs  
U.S. Department of Energy  


**From:** Colyar, Kelly <[REDACTED]@hq.doe.gov>  
**Sent:** Wednesday, December 2, 2009 2:15 AM (GMT)  
**To:** [REDACTED]; [REDACTED]; [REDACTED]  
**Subject:** Re: Vogtle: Deadlines set by Secretary

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Can we all catch up thursday morning? 10?

Omb is now supposed to be after credit committee. For credit committee, we only need the power point decks.

However, omb will be right after that. For omb, sandy can you send anthony the following on ope and meag (separate emails) so his team can start preparing the briefing packets:

1. Preliminary credit assessments
2. Current s&p ratings (and fitch if we have--we had on gpc I think).

I'm assuming the II/ and market reports are the same as we had on gpc? If not, please send as appropriate.

Anthony-am I missing anything on the omb briefing packet? We'll send the power points as they are finalized.

Brian-how close are we to being able to run the recovery estimates and therefore credit subsidy estimates? Anthony-I'll send you the assumptions for the ranges once we determine the starting points. Recall we will be running estimates for five loans.

Anything else right now?

As always--take a breath. Just keep moving and we'll see what happens.

----- Original Message -----

**From:** Paul Barbian <[REDACTED]>  
**To:** Colyar, Kelly; James C McCreary <[REDACTED]>; Sandra Claghorn <[REDACTED]>; Renee Sass <[REDACTED]>; Brian Outley <[REDACTED]>  
**Sent:** Tue Dec 01 19:39:38 2009  
**Subject:** Vogtle: Deadlines set by Secretary

Nick Whitcombe called me a few minutes ago (7:00 PM eastern). He told me that Dave Franz, Susan Richardson, and he had been called to the Secretary's office and told to "agree" to the term sheet with OPC by Friday, Dec 4, and to agree to the term sheet with MEAG by Wed Dec 9. The time pressure is coming from the White House, according to Nick.

The OPC term sheet circulated today is meant to mirror the GPC term sheet, with DOE having a security interest in the undivided interest, and being repaid out of the cash flow stream generated by the "company".

MEAG has verbally agreed to raise \$2.5 billion of debt for the project and to spend it before any DOE money is drawn. The result for the MEAG part of the Vogtle deal will be about 50% debt, 50% equity. DOE's loans would rank pari passu with the other MEAG debt outstanding. One MEAG term sheet is contemplated, which will refer to the three SPVs.

Nick asked that we refresh our list of unanswered questions. He referred to the list we provided some time ago that had columns with X designating which deal the question referred to. In any case, we need to refresh our questions.

That's the report from Nick. Tomorrow, Wed, we need to develop an action plan. I will coordinate with Kelly in the morning.

Paul

**From:** Silver, Jonathan <[REDACTED]@hq.doe.gov>  
**Sent:** Tuesday, November 23, 2010 2:20 PM (GMT)  
**To:** Frantz, David <[REDACTED]@hq.doe.gov>; [REDACTED] Barwell, Owen  
[REDACTED]@hq.doe.gov>  
**Subject:** Fw: take-out financing

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Fwi  
Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

----- Original Message -----  
From: SCHU  
To: Hurlbut, Brandon  
Cc: O'Connor, Rod; Silver, Jonathan  
Sent: Tue Nov 23 08:45:05 2010  
Subject: RE: take-out financing

Brandon,

Although I agree that a reasonable case can be made that Baldwin does not fall into the clear category of what I (or the President) was thinking of as Loan Guarantee backed refinancing, I don't think this is a battle we are going to win.

On the flip side, I don't remember agreeing to counting State RPS as part of the total accounting of government subsidy. Also, the Nov. 6 "Memorandum for Deputies" clearly ties to skew any calculation toward higher subsidy on several counts: the high discount rate, placing the cost of gas peaking plants as part of the "subsidy", and other factors pointed out by Matt Winters. If anything, I remember that we decided to include all federal and direct state subsidies only and agree to exclude RPS policies. The economists may argue that we already included a 5% estimate to State RPS subsidies, so that we already conceded that this should be part of the subsidy tally.

I am very willing to elevate this battle.

Steve

Steven Chu  
Department of Energy

-----Original Message-----  
From: Hurlbut, Brandon  
Sent: Monday, November 22, 2010 6:31 PM  
To: SCHU  
Subject: FW: take-out financing

Below is the most recent discussion on Baldwin. You will find the re-financing definition Jonathan proposed (Rod and I worked on it with him) and the NEC reaction to it.

-----Original Message-----  
From: Aldy, Joseph E. [REDACTED]@wbo.eop.gov]  
Sent: Wednesday, November 17, 2010 10:16 AM  
To: Silver, Jonathan; Mas, Alex  
Cc: Hurlbut, Brandon; Farrell, Diana; Zichal, Heather; O'Connor, Rod  
Subject: Re: take-out financing

First a comment on the substance, and then a comment on process.

On substance. As a Recovery Act program, the primary objectives of 1705 are to create jobs and drive incremental renewable energy investment. When we designed this program during the transition, the intent was to address the challenge renewable developers had in

raising debt given the state of the credit markets. If a company can raise private sector resources sufficient to build a project, then that reveals the credit market is not a constraint on the project. If a company can raise resources pre-construction to build a project, then it should be able to refinance through the private sector post-construction when the project is characterized by less risk than during the initial effort to raise funds. Such a scenario also characterizes a project that is significantly if not completely built. It also characterizes a market that can support a project without the assistance of a government loan guarantee.

Providing a loan guarantee in this context does not result in an incremental change in jobs or installed energy infrastructure. Since this would not deliver on the primary objectives of 1705, we would not support such an interpretation regarding refinancing.

On process. Staff do not re-litigate issues discussed and closed by principals or by principals and the President. At the last discussion of this issue, Secretary Chu explicitly stated that he understood that we would not permit refinancing and that this ruled out Baldwin. If the Secretary has changed his mind on refinancing and he wants to re-open this issue, then he needs to raise this with principals.

----- Original Message -----

From: Silver, Jonathan <[REDACTED]@hq.doe.gov>

To: Mas, Alex; Aldy, Joseph E.

Cc: Hurlbut, Brandon <[REDACTED]@hq.doe.gov>

Sent: Mon Nov 15 11:14:55 2010

Subject: take-out financing

Joe/Alex,

It was agreed that we needed to articulate a threshold for permissible financing and we think we can define a bright line between our current FIPP solicitations and obvious take-out financing. Our test is to exclude projects that are otherwise completely financed (debt and equity already in place) and designed-in reality--to turbo-charge investor returns by virtue of LGP's lower cost of capital. We believe we have come up with a definition that meets these objectives. This has been reviewed by all at DOE; if it works for you, we would like to implement it immediately.

The FIPP solicitation language is already clear that loan guarantees may not be used to refinance or take out permanent financing. So, any project that comes in that has permanent financing in place will be rejected. In addition, projects that are already, or largely, built before a loan application is made should also be eliminated. On the other hand, the long-term debt provided by our guarantees should be available to replace construction financing that was always intended to be repaid after completion of the work or for construction funded entirely by equity where the loan guarantee application is made prior to the start of construction.

If this definition works for you, I will begin to apply it to all our applications. It will help us identify those which we should try to restructure or reject. This definition would exclude City Solar (already done), but permit Baldwin.

Thanks,

J

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
[REDACTED]

**From:** James C McCrea [REDACTED]  
**Sent:** Friday, September 10, 2010 2:02 PM (GMT)  
**To:** 'Silver, Jonathan' [REDACTED]@hq.doe.gov>  
**Subject:** RE: Committing Loan Funds Before The End of the Calendar Year.docx  
**Attach:** 091010 Budget Apportionment.docx

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Apportionment paragraphs from Brian and Anthony.

Jim

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Silver, Jonathan [REDACTED]@hq.doe.gov]  
Sent: Friday, September 10, 2010 6:45 AM  
To: [REDACTED]  
Subject: Re: Committing Loan Funds Before The End of the Calendar Year.docx

Can you have someone give me two or three paragraphs on what apportionment is and does, for circulation. Thanks.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

----- Original Message -----

From: James C McCrea - [REDACTED]  
To: Silver, Jonathan  
Sent: Fri Sep 10 01:30:13 2010  
Subject: RE: Committing Loan Funds Before The End of the Calendar Year.docx

Jonathan --

I thought about the topic a good bit on the plane home and then found your e-mail when I landed. Unfortunately, the more I think about it, the more the proposal appears to me to be (1) a high risk effort to solve what is inherently a political problem and (2) exactly what the checks and balances in the federal government are designed to protect against. Additionally, I really could not find much in the way of opportunity when looking at the proposal from a transactional and applicant perspective. The issue is that any opportunities are conceptual which makes them hypothetical at best while the risks are very real. All in all, I can't imagine a proposal like this receiving the approval of either OMB or Treasury although I am perhaps too jaded by current and recent events.

While I clearly recognize the risks that the program faces, especially in the current political environment, I think that this proposal is sort of a knee jerk reaction which, in the remote chance it were implemented, has the potential to seriously damage the program and significantly diminish its ultimate transactional accomplishments.

One of the biggest problems is that it creates forces and processes which seriously undermine a loan oriented credit process. To make this work, I think that one would really have to convert the T-17 loan program to a grant program but under this type of approach, it will be extremely difficult to maintain the proper credit process. The end result, when reviewed from a point in the future, will be yet another DOE loan program that created a bunch of busted transactions and another, black eye for the DOE. Unfortunately, much of the difficulty we face these days is because of the long shadows cast by previous DOE failures.

Sorry to be so gloomy.

JM\_00067442



Jim

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James C. McCrea  
JAMES McCREA & ASSOCIATES LLC



-----Original Message-----

From: Silver, Jonathan [REDACTED]@hq.doc.gov]  
Sent: Thursday, September 09, 2010 9:09 PM  
To: [REDACTED]  
Subject: Fw: Committing Loan Funds Before The End of the Calendar Year.docx

Please let me know what you think of this. Give me reasons it could work and reasons it can't.  
Pls don't share with anyone else.  
Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy



----- Original Message -----

From: Rogers, Matt  
To: OConnor, Rod; Silver, Jonathan; Hurlbut, Brandon  
Cc: Poneman, Daniel  
Sent: Thu Sep 09 20:04:05 2010  
Subject: Committing Loan Funds Before The End of the Calendar Year.docx

This is a one page summary of what we discussed. If we are all on the same page, I would suggest we share this with deseve on Friday so that we can work with him on an approach to zains next wcek. Regards, mr

JM\_00067443

## BUDGET APPORTIONMENT

In the Federal funds control process, apportionment is a plan, approved by OMB, to spend resources provided by an appropriation. The apportionment identifies the accounts available for obligation and expenditures. It specifies and limits the obligations and expenditures that may be made for specified time periods, programs, activities, projects, objects or any combination thereof. For Federal credit programs, the apportioning of funds occurs at the time of obligation.

Under OMB Circular A-11, a direct loan obligation means a binding agreement of a Federal agency to make a direct loan once the specified conditions are fulfilled by the borrower. At the time of apportionment, borrower-paid credit subsidy or appropriated credit subsidy are obligated to cover the subsidy cost of a direct loan or loan guarantee. The failure to apportion such funds represents a violation of the Anti-Deficiency Act. Therefore, for Title XVII, the apportionment process must be complete in order for the project to achieve financial closing.

The Title XVII Program is structured to have the obligating event occur at financial closing. Because Title XVII was originally enacted as a self-pay program, considerable discussion occurred during the rulemaking process regarding when the credit subsidy cost had to be paid. Potential borrowers rightly indicated that payment of the credit subsidy cost at term sheet execution was a non-starter and rather, credit subsidy cost should be paid when the government is fully committed (i.e., at closing). As a result, the Final Rule calls for a conditional commitment as a means of approving the project while not formally committing the government to funding the project. This allows the obligating event for Title XVII to occur at financial closing. By contrast, the ATVM Program's obligating event occurs at term sheet execution. Therefore, the credit subsidy cost is apportioned or obligated prior to financial closing. While it is possible to de-obligate funds prior to closing, the government is considered committed at term sheet execution. This means that OMB is heavily involved at the term sheet execution stage for ATVM and at the closing stage for Title XVII.

**From:** Otness, Chris <[REDACTED]@Hq.Doe.Gov>  
**Sent:** Tuesday, May 4, 2010 10:38 PM (GMT)  
**To:** Silver, Jonathan <[REDACTED]@hq.doe.gov>; Tobin, Daniel <[REDACTED]@hq.doe.gov>; Frantz, David <[REDACTED]@hq.doe.gov>; [REDACTED]  
**Subject:** RE:  
**Attach:** S1 Meeting with Senators Reid and Bingaman re Loan Programs.doc; I.GP Overview.pptx; NV and NM projects - Signet\_Fulcrum\_Molycorp.doc; fs Southwest Intertie Project-South1.docx; Reid Letter to President.pdf; LES Letter to S1.pdf

---

Jonathan - Attached is a rough draft of the Reid Memo and the corresponding documents. Frantz/McCrea have looked over the memo but have not yet seen some of the corresponding documents.

We will definitely need your guidance for edits in certain areas. Kate Eltrich from Leg Affairs in OMB will be attending according to Jonathan Levy.

This is due in its final version for S1 by 6:15am PST/9:15am EST tomorrow morning.

Best,

Chris Otness  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

-----Original Message-----

**From:** Silver, Jonathan  
**Sent:** Tuesday, May 04, 2010 1:42 PM  
**To:** Tobin, Daniel; Frantz, David; [REDACTED]  
**Cc:** Otness, Chris  
**Subject:**

The mtg on Thursday afternoon, originally scheduled weeks ago as a mtg with the Majority Leader and me has turned into a much bigger affair. It now includes Secretary Chu, Peter Orszag, Senator Reid and Senator Bingaman.

Can we find out if anyone else from omb is going.

I need a list of all the projects that have ever applied from Nevada and New Mexico and what happened to them.

I also need a couple of paragraphs on SWiP, molycorp, fulcrum and whatever else has been an issue.

I need some stats on how many projects we have funded or have in DD as a percentage of totals. Reid is constantly hit at home for not bringing in federal dollars.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]



## Meeting with Senator Reid and Senator Bingaman

Capitol Building S-211

5:30 pm – 6:30 pm on Thursday, May 6, 2010

Meeting requested by Senate Majority Leader Harry Reid

Briefing prepared by Chris Otness (██████)

### EVENT

You will be meeting, at the request of Senator Reid's office, with Senator Reid, Senator Bingaman, OMB Director Orszag and Jonathan Silver to discuss the Department of Energy Loan Programs.

**Press: Closed**

### YOUR ROLE/CONTRIBUTION

- The objective of this meeting will be to address the questions and concerns that Senator Reid and Senator Bingaman have on whether or not the DOE Loan Programs is functioning properly.
- Your role will be to reinforce DOE's message that the Loan Programs is operating at a good pace and that we anticipate a good number of deals to be approved in the coming months.

### PROGRAM NOTES

- **Attendees:**
  - Senator Reid
  - Senator Bingaman
  - Peter Orszag
  - Jonathan Silver
  - Dan Utech
  - Kate Eltrich – OMB Legislative Affairs
- Topics that YOU can expect to address in this meeting including the following:
  - An update for Senators Reid and Bingaman on the progress of the DOE Loan Programs.
  - An explanation of the delay in responsiveness to Senator Reid's letter to President and YOU regarding the speed of the DOE Loan Programs last September. This will be determined at your pre-brief on Thursday.
  - An update on coordination between the Loan Programs and OMB.
  - A discussion of specific applications from Senator Reid's and Senator Bingaman's respective states including, but not limited to, Molycorp (NV), Fulcrum (NV), and SWIP (NV).
  - A discussion of a letter sent from LES to YOU regarding the additional loan guarantee authority for front-end nuclear facilities.



**ATTACHMENTS**

1. **LGP Application Data**
2. **Letter from Senator Reid**
3. **Molycorp, Fulcrum, Signet Brief**
4. **SWIP Brief**
5. **LES letter**



<b>All 1703/1705 Applications</b>	<b>Total</b>	<b>Percentage</b>
Applications Rejected	188	56%
Applications Withdrawn	19	6%
Applications in Part I & Part II	72	22%
Applications in Due Diligence	47	14%
Projects with Conditional Commitment	8	2%
<b>Total Applications</b>	<b>334</b>	<b>100%</b>

<b>All Nevada/New Mexico Applications</b>	<b>Total</b>	<b>Percentage</b>
Applications Rejected	6	60%
Applications Withdrawn	1	10%
Applications in Part I & Part II	1	10%
Applications in Due Diligence	2	20%
Projects with Conditional Commitment	0	0%
<b>Total Applications</b>	<b>10</b>	<b>100%</b>

Confidential

JM\_00230713

2015 Applications - Nevada and New Mexico Applications



Solicitation	Project Sponsor	Project Name	Loan Request (\$ Thousand)	Category	Subcategory	Project City	State	Status
FY09	NRG Energy, Inc.	New Mexico SunTower	\$178,000	Solar Generation	Concentrated Solar Power	Santa Teresa	NM	Eligible, Waiting on Pt. II application
FY08	NRG Energy, Inc.	New Mexico SunTower	\$180,000	Solar Generation	Concentrated Solar Power	Santa Teresa	NM	Rejected
FY08	Signet Solar, Inc.	SunKachina	\$168,000	Solar Manufacturing	Thin-film micro-crystalline silicon technology	Belen	NM	Rejected
FY09	Omat Nevada Inc	Jersey Valley	\$70,000	Geothermal	Advanced Geothermal	Pershing County	NV	Rejected, Non-Innovative
FY09	Omat Nevada Inc	McGinness Hills	\$107,000	Geothermal	Advanced Geothermal	Lander County	NV	Rejected, Non-Innovative
FY09	Omat Nevada, Inc.	Carson Lake	\$69,000	Geothermal	Advanced Geothermal	Fallon	NV	Rejected, Non-Innovative
FY09	Solar Reserve LLC	Tonopah	\$568,000	Solar Generation	Concentrated Solar Power w/ thermal energy storage	Nye County	NV	Invited to DD, self selection
FY09	LS Power Associates, LP	Southwest Intertie Project (SWIP)	\$1,124,400	Transmission	500 miles of 500KV AC Line	--	NV / ID	Invited to Due Diligence
FY08	Fulcrum BioEnergy, Inc.	Project Sierra	\$70,000	Biomass	Cellulosic Ethanol	McCarran	NV	Rejected
FY08	Solar Millennium LLC	The Amargosa Solar Power	\$1,762,000	Solar Generation	Concentrating Solar Power	Amargosa Valley	NV	Invited to Due Diligence, later withdrew

Confidential

JM\_00230714

**New Mexico / Nevada Projects With Issues | DATE \@ "M/d/yyyy" |**

**Fulcrum** - Fulcrum Sierra BioFuels LLC ("FSB") is developing a facility to produce 10.5 million gpy cellulosic ethanol from 90,000 tons per year of municipal solid waste. The Sierra Project ("SP"), is located in McCarran, Nevada. The project was reviewed technically and financially and ultimately rejected. Applicant claimed factual error and project was reviewed again by Golden. Golden's opinion was unchanged.

**Strengths:**

- More conservative capital structure than most biofuel proposals @ 60/40.
- The project has executed two no-net cost feedstock agreements that will provide 100% of the MSW feedstock.
- Coverage ratios appear adequate using sponsor base case.
- The site has both interstate and rail access.
- High value alternative products, such as methanol, propanol and butanol may be able to be produced should the ethanol market not support the facility.

**Weaknesses:**

- The R.W. Beck report highlighted the need for additional pilot plant work to confirm design parameter prior to proceeding with detailed engineering.
- The scale up of the project is estimated at 200 to 1, presenting a very large risk with a new technology, especially with the limited operating hours of the pilot plant;
- Continuous process demonstration scale testing was only done for 4-6 hours, much too short for assessing potential process operating issues;
- Project possesses an ethanol marketing agreement but this does not mitigate volume or price risk.
- Loan tenor long at 20 years (18 years post construction) resulting in lower DSCRs should DOE decide to reduce tenor.

**Signet Solar** - Sought \$168MM loan guarantee to establish a manufacturing facility in Belen, New Mexico (just south of Albuquerque) to mass produce PV modules based on amorphous Si (a-Si) thin-film technology. The project was initially accepted but later found to be deficient. A letter requesting additional info was issued mid August 2009. Signet responded, we reviewed the material and ultimately rejected the project in mid January 2010.

**Strengths:**

- Sponsor recently completed a 20 MW facility in Germany in a relatively short construction time frame that is operating as expected. Applied Materials provided the manufacturing line in Germany and will also provide the New Mexico line.
- CH2M Hill has been identified as the EPC contractor and Applied Materials will provide the manufacturing line.
- Substantial economic incentives in the form of tax credits, tax abatements and job training subsidies appear to be available.
- Equity commitments in the amount of \$55 million from company principals.

**Weaknesses:**

- Manufacturing technology is not proprietary and is licensed from Applied Materials suggesting low barriers to entry and dependence upon AMAT for technology upgrades and equipment.
- No offtake contracts, although interested parties have provided non-binding letters of intent or memorandums of understanding regarding quantities and pricing.
- Equity capitalization may need to be increased and should probably be deployed to build most of the first 6.5 MW of capacity.
- Veracity of equity providers is not known without further due diligence.



New Mexico / Nevada Projects With Issues { DATE \@ "M/d/yyyy" }

- Financial pro forma very aggressive with ASPs well above market.

Molycorp

The project proposes the redevelopment of a rare earth mineral deposit to develop metals and permanent magnets that have a wide range of applications in clean energy technologies. A refurbished milling operation, new technology for cracking / solvent extraction processes, and metal/alloy/magnet production facilities will permit the production of 20 tons of rare earth oxides per year.

Status

The applicant submitted their Part I submission on 9/9/09 and was sent a rejection letter on 12/18/09. The project did not pass the LGP's technical eligibility review since it did not qualify as a new or improved technology.

Issues

After receiving their rejection letter, Molycorp submitted a rebuttal letter on 1/5/10 and requested a debrief from the LGP in a separate letter dated 2/18/10. The debrief was held on 3/3/10.

In a follow-up letter from the DOE LGP (dated 4/30/10) to Molycorp DOE further clarified the reasons for rejection. The following was communicated:

"Section 1703(b) of Title XVII lists ten categories of projects that are eligible for a loan guarantee under that section. We do not believe that a mining project qualifies under any of those categories. While we recognize that the first category of "renewable energy systems" may include materials within the renewable energy supply chain, we do not believe that it is broad enough to encompass mineral extraction processes. Moreover, our program has not been designed, and we do not believe that it is well suited, to support such activities. However, as we have indicated to you, we are open to receiving a restructured application for a manufacturing project dedicated to wind turbine magnet production or metal/metal alloy production for use in wind turbine magnets. Of course, any such application would have to satisfy our "innovativeness" criteria under Section 1703 as well as our due diligence, underwriting and other criteria."

## Southwest Intertie Project (SWIP)

### Phase 1: SWIP-South (Ely to Las Vegas)

#### (Non-public Information)

- Single circuit, overhead 500 kVAC transmission line capable of carrying 600 MW of power
  - With Phase 2—from southern Idaho to Ely (SWIP-North), and from Las Vegas to Southern California Edison's grid (Southern Nevada Intertie Project—SNIP) the line will carry 2,000 MW of power.
- Owners in the transmission line are LS Power Associates (75%), and NV Energy's Nevada Power Company (23.75%) and Sierra Pacific Power Company (1.25%).
- SWIP-South will cost \$556 million and presently could receive a loan guarantee on debt of as much as \$334 million (80% of the portion of the line owned by LS Power, the only current applicant).
  - If the NV Energy companies combine their 25% share of the line with the current applicant, loan guarantees on SWIP-South could be on debt of as much as \$445 million (80% of the entire line).
- Status of key initiatives
  - Outside lawyers and IE were engaged last week to begin due diligence; financial advisors have been in place since last year.
  - Project economics have been reviewed and proposed structure financing structure is being formulated.
  - A draft of the Transmission Use Agreement (between LS Power and NV Energy affiliates has been reviewed, but it is not finalized. This is the critical document for the entire project. No meaningful negotiation of terms can take place until it is, at the very least, in near-final form. LS Power anticipates reaching agreement with the NV Energy affiliates on the TUA in May.
  - We are pre-loading all we can in the process (e.g., drafting credit paper, reviewing NVE credit issues, etc.), but more review is essential, and we need to see the TUA before we can advance the term sheet.
- SWIP-S is the only project from the transmission solicitation that is in Due Diligence.

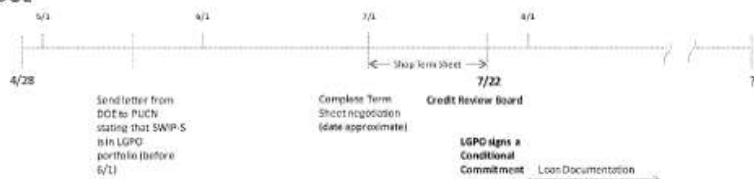
May 4, 2010



May 4, 2010

# SWIP-S LGPO Timeline

DOE



PUCN



May 4, 2010

## United States Senate

WASHINGTON, DC 20510-7012

September 23, 2009

The President  
The White House  
Washington, D.C.

Dear Mr. President,

I am writing to convey my concerns about the slow pace of implementation of the Department of Energy's loan guarantee programs. These concerns are shared by many Senators, renewable energy developers, and clean energy investors across the country.

As you know, I was pleased to help appropriate an additional \$6 billion for an expanded loan guarantee program for the rapid deployment of renewable energy and electric power transmission, as well as leading edge biofuel projects. Since passage of the Recovery Act, \$2 billion of that original appropriation has been redirected to pay for the Consumers Assistance to Recycle and Save Act (CARS). I look forward to working with you to restore those funds so that the restored \$2 billion can leverage more than \$20 billion in clean energy projects, jobs and economic activity.

Since the innovative loan guarantee program was first established in the 2005 Energy Policy Act and the commercial program was created in the Recovery Act, there appears to have been a general and consistent reluctance on the part of the Office of Management and Budget and to a lesser extent the Department of Treasury to expeditiously fulfill and implement Congress' express intent and statutory direction in regard to these programs. While I applaud the remarkable work of OMB, Treasury and the Department of Energy in moving forward quickly on the Recovery Act's battery and electric vehicle manufacturing grants, as well as the renewable energy grant program in lieu of tax credits, the loan guarantee programs seem handicapped by an extreme aversion to risk.

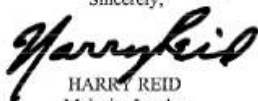
I believe it is very important to ensure that projects for which the Federal government provide loan guarantees are the best possible investments, but there is no such thing as a risk-free investment – public or private. Excessively complicated or unclearly justified regulations and processes designed to ensure zero-risk to the Treasury from guaranteed loans only ensures that billions of dollars appropriated sit idle rather than attracting critically important private investment and growing tens of thousands of clean energy jobs. Renewable industry experts estimate that 18,000 MW of clean renewable energy projects creating 100,000 construction jobs and 7,000 permanent jobs could be created in the very near future if the commercial (section 1705) loan guarantee program alone were functioning at full capacity as Congress intended.

Congress supports the loan guarantee programs and will continue to fund them until there is a better substitute and investors are much more heavily focused on funding significant clean energy development. Furthermore, Congress is unlikely to support using loan guarantee funds again as an offset for other spending.

I hope that you can help clear away the obstacles impairing swift action on making Federal guaranteed loans for clean renewable energy projects. The people of Nevada and many other states are impatiently waiting for the economic development and the jobs that will come with full, effective and rapid implementation of the innovative and commercial loan guarantee programs.

Thank you for your attention to my concerns.

Sincerely,

A handwritten signature in black ink that reads "Harry Reid". The signature is fluid and cursive, with the first name "Harry" being larger and more prominent than the last name "Reid".

HARRY REID  
Majority Leader

cc: The Honorable Timothy Geithner  
Secretary of the Treasury

The Honorable Steven Chu  
Secretary of Energy

The Honorable Peter Orszag  
Director of the Office of Management  
and Budget

**From:** Sandra Claghorn [REDACTED]  
**Sent:** Tuesday, May 4, 2010 10:21 PM (GMT)  
**To:** Jim McCrea [REDACTED]  
**Subject:** RE: Draft First Wind

---

A few minor suggestions are in red below....nothing substantive...just trying to lessen the screams of angst that are going to come from Monique's office once you hit the send button!

S

Sandra Claghorn  
Credit Consultant  
LGPO / ATVM

[REDACTED]

---

Date: Tue, 4 May 2010 18:08:05 -0400  
From: [REDACTED]  
Subject: Draft First Wind  
To: [REDACTED]

Sandy -

Would appreciate your comments. If possible, I would like to get this out this evening.

DRAFT

Monique, Kimberly et al. -

My apologies for not being on the Fitch call this morning. Sandy has given me a thorough briefing on the discussion. There is no question that there is a Fitch problem, but I do not think that the situation is simply a Fitch problem. As you know, OMB has been asking what can change in a deal between the final credit assessment and closing and we have struggled unsuccessfully to define the extent to which things are changing as the transaction is being "polished" [deleted last clause]. It appears that the extent of on-going negotiations is [deleted "a lot"] greater and more substantive than I had understood. The fact that the amortization schedule is not completely tied down is a concern. Further, as you know, I was very worried about the Fitch disclaimer statement at the top of page 2 (important details of the transaction have not yet been determined). I understand that Fitch will revise that statement to indicate what is outstanding including that they have not seen the loan agreement. [deleted "document"]. However, if we send a Fitch credit assessment to OMB stating [deleted "with a statement that"] that Fitch has not seen the loan agreement, the OMB reaction will be decidedly negative and they will view the credit assessment as being sufficiently premature as to lack utility. Unfortunately, I would agree with OMB in that conclusion. In my view, Fitch should not be issuing a final credit assessment without having seen the "near final" loan agreement.

As to timing, today is May 3. Assuming that we are at least a week away from a Fitch report that is based on a review of the loan agreement. Therefore, this is really a June closing in all probability.

JM\_00230733



Jim

---

James C. McCrea

**JAMES MCCREA & ASSOCIATES LLC**



**From:** [REDACTED]  
**Sent:** Tuesday, May 4, 2010 10:19 PM (GMT)  
**To:** [REDACTED]  
**Subject:** Re: Revised Text

---

I think so. AC had some editorial comments which I elected not to incorporate.

Brian Oakley  
Scully Capital

[REDACTED]

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**From:** James C McCrea <[REDACTED]>  
**To:** [REDACTED] 'Anthony Curcio' <[REDACTED]>  
**Sent:** Tue May 04 17:13:18 2010  
**Subject:** RE: Revised Text

Brian –

I am a bit confused. Is the text below ready to go to Kelly?

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

---

**From:** [REDACTED]  
**Sent:** Tuesday, May 04, 2010 3:13 PM  
**To:** [REDACTED] Anthony Curcio  
**Subject:** Revised Text

I incorporated some of Anthony's comments, but not all. We need to set this up and then have a dialog. Unfortunately, it will take some words to set it up. It's not so bad on a computer (vs a Blackberry).

Kelly,

The development of the FFB Note Purchase Agreement is driving a couple considerations related to scoring. These issues relate to interest capitalization and principal amortization. DOE would like to adopt a standard approach for interest capitalization as there has been a lot of confusion regarding how this is treated. Therefore, we do not see this as a case by case issue – it would apply to all loans with deferred interest. We did not get a chance to discuss principal amortization yesterday, so we are using this email to present those topics. In both cases, DOE sees no difference in the credit risk associated with the structuring option and therefore, we believe it should not introduce a budget scoring difference. However, we are mindful that the legal documentation of the transaction is a consideration and seek your input on whether our decisions with regard to FFB will introduce changes in how we approach transaction scoring. Each

issue is discussed below:

- **Interest Capitalization:** The FFB has two options for agencies when it comes to capitalizing interest. The first option is to accrue interest on FFB's books and require nothing of the borrower in terms of draw requests to service interest due. Accordingly, the obligation is the sum of the draws exclusive of any capitalized interest. The total loan exposure, and hence, principal repayment requirement includes interest capitalized during construction. The second option offered by FFB is a "payment borrowings" approach. Under payment borrowings, the borrower will request a draw from FFB to make interest payments back to FFB. As a result, the loan repayment schedule will have interest due during the construction period. However, FFB will fund such interest payments out of loan draws. This introduces the borrower to the discipline of making scheduled interest payments and DOE believes this carries some benefit. In practice, we understand that such payments would be disbursed from FFB to the collateral agent/trustee, a DOE agent. Therefore, DOE does not believe this would be deemed a payment to/from government. If it is OMB's determination that a payment borrowings approach would constitute a payment to/from government, then DOE would have its answer and would simply pursue FFB's accrual method for capitalizing interest.
- **Principal Amortization under 1603 Cash Grants:** As discussed yesterday, DOE is scoring transactions that involve a 1603 Cash Grant according to the agreed upon approach. Separately, DOE is negotiating the final amortization schedule with the borrower and FFB. For certain transactions which will be able to service the guaranteed debt without the benefit of the 1603 Cash Grant, DOE intends to structure the principal amortization schedule as if the 1603 Cash Grant was not received. Pursuant to the documents, the receipt of a 1603 Cash Grant would be a mandatory pre-payment. After receipt, the amortization schedule will be adjusted on a pro-rata basis and will align with the amortization schedule used in the budget scoring process. The purpose of this treatment is to ensure that the legal documentation does not unnecessarily introduce credit pressure to the project. Specifically, to the extent the 1603 Cash Grant is delayed or is not received, DOE and the borrower would prefer to avoid a payment default if all other aspects of the project are working well and the project is producing sufficient cashflows to cover scheduled principal and interest payments. Since not all projects will be able to amortize all construction debt in the absence of the 1603 Cash Grant, we expect amortization schedules in the FFB documentation to vary from project to project. At this point, we are simply interested in understanding OMB's viewpoints on this and whether you see any implications for the agreed upon 1603 Cash Grant methodology.

We hope this provides you with sufficient background to understand our questions. If you want any further clarification, please do not hesitate to ask.

Brian Oakley  
Scully Capital



**From:** James C McCrea <[REDACTED]>  
**Sent:** Friday, October 1, 2010 4:18 AM (GMT)  
**To:** 'Silver, Jonathan' <[REDACTED]@hq.doe.gov>  
**Subject:** RE: Talking points

---

Indeed. Good luck. I am up early and should be in the office before 8 if you need anything and will still be up for a while.

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]

---

**From:** Silver, Jonathan [REDACTED]@hq.doe.gov]  
**Sent:** Friday, October 01, 2010 12:06 AM  
**To:** [REDACTED]  
**Subject:** Re: Talking points

Very helpful, thanks.  
Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

---

**From:** James C McCrea <[REDACTED]>  
**To:** Silver, Jonathan  
**Sent:** Thu Sep 30 23:25:46 2010  
**Subject:** RE: Talking points

Comments below in red and CAPS.

I fixed scattered typos. Often Treasury was not capitalized and made the occasional word fix. However, mostly, I put my thoughts under a section in red along with suggested language so that you can take them or easily delete them.

All in all, a clear summary and a proper framing of the issue for S1.

Up as long you need me and I can get Roger if we need any more deal specific info.

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Silver, Jonathan [redacted]@hq.doe.gov]  
Sent: Thursday, September 30, 2010 10:23 PM  
To: [redacted]  
Subject: Re: talking points

Jim, edit my deal and credit section, but nothing else. I am interested in your points on other areas, but no edits.  
Thanks.

Sure, but I don't have the form and I have a breakfast so here's a summary if you don't mind working from that.

#### Background

Shepherds Flat is a wind farm project located on the coast of Oregon. When completed, it will be the largest wind farm in the world.

#### IN OREGON BUT NOT ON THE COAST.

The project generated some publicity this past spring when NORAD forced it to stop its permitting work, citing potential risks to our coastal missile defense systems (the wind turbines caused radar problems). The issue was resolved.

The two project partners are Caithness, a developer, and GE, which is both an investor and the manufacturer of the turbines.

#### INVESTOR, MANUFACTURER AND THE OPERATOR. 10 YEAR O&M CONTRACT

#### The Transaction

The deal is a well structured transaction, which has received an OMB approved credit subsidy score of 1-3%. In general, the deal is moderately complex, but makes use of no unusual features other than letters of credit (which are not at all unusual in private sector deals). The letters of credit required some back and forth with OMB as to whether they would need to be re-evaluated from a debt perspective when they expired.

OMB HAS NOT ACTUALLY APPROVED THE CSC AS THERE ARE STILL TECHNICAL DISCUSSIONS TO BE HAD ABOUT HOW TO DO THE CSC GIVEN THE LOCS. PERHAPS, "IS EXPECTED TO RECEIVE.."

NOTE: SUSAN IS CONCERNED THAT THE OMB QUESTION ABOUT LOCS BEING ALLOWED, NOW THAT IT HAS BEEN RAISED, REALLY SHOULD BE PUT TO BED (I.E. RETRACTED) BEFORE WE PROCEED AS A NEGOTIATED RESOLUTION REGARDING AN ELIGIBILITY ISSUE IS OF SOME CONCERN TO HER. I SUSPECT THAT HER CONCERNS ARE RAISED BY THE EXTENT OF THE WRITTEN TRAIL FROM OMB ALTHOUGH WE HAVE ANSWERED THE STAFF LEVEL QUESTIONS. HOWEVER, THERE IS THE ISSUES LIST FROM LAST FRIDAY'S MEETING AT THE WH WHICH HAS NOT BEEN FORMALLY ANSWERED.

#### The Issue

This is not Treasury's issue (although it is really the only potential policy level issue in the transaction).

Instead, after weeks of silence (the Treasury team was briefed several weeks ago), UST concluded that there could be significant potential tax issues in the transaction (although

they never said what they were, and have not, to this day). They "required" that we obtain a "will" opinion level letter about the transaction. (This is an extremely high threshold for a deal to meet and means that the law firm reviewing the deal believes that the tax structure being utilized "will" meet all conceivable legal attacks on the structure.

REALLY IRS CHALLENGES RATHER THAN LEGAL ATTACKS.

The deal does not warrant this; it is plain vanilla. More important, "will" opinions are time consuming, expensive, contain highly sensitive business information, and, if required, would put a severe chill on applicant interest in the program. Most important, perhaps, the opinion is required of the parent or sponsor. Our deals are done at the project level. We have no legal recourse to the parent, nor do we, in a general sense, care about the economic distributions at the parent. We are protected at the project level.

IT IS THE PARENT THAT TAKES THE RISK OF ECONOMIC LOSSES DUE TO ANY SUCCESSFUL IRS CHALLENGE. SHOULD WE AT LEAST MENTION TREASURY'S VIEW THAT "

What this has become, is a fight about what role Treasury will play in our deals going forward. The statute gives them a consulting role, nothing more. They have interpreted this exceptionally broadly, believing that THEIR role in tax policy requires that they approve each of our transactions. To date, they have fought us on interest rate hedging, leveraged leases, and more. (All of these are common features of private sector transactions. )

To exercise their self-proclaimed rights, UST told us they would only approve the Shepherd's Flat deal if we got language added to assert that the sponsor would get at least a "should" letter opinion on the transaction (a slightly weaker requirement than a "will" opinion, but still onerous). We offered instead the idea of "intent" language in the reps and warranties section of the deal (a deal the sponsor believes they have already struck with us). We also noted that the language they wanted constituted a material change and could not simply be added and voted on; it would have to be negotiated with the company. Consequently, we might miss the deadline for the President's radio address on Saturday. The WH told us to send the Treasury language to the company. We did.

WILL S1 KNOW WHAT REPS AND WARRANTIES ARE? PERHAPS WE SHOULD SAY " SPONSOR FORMAL REPRESENTATIONS PROVIDED AS A CONDITION TO TRANSACTION CLOSING"

Not surprisingly, the company refused to sign, pointing out that the deal structure that had been negotiated used a series of pass through LLC's, which made the request moot and indicating that obtaining a "should" opinion from a third party law firm would be impossible since no firm would opine at that level on a deal with dozens of years to run, etc. (We share this opinion. )

PERHAPS, "WE SHARE THIS VIEW." TO AVOID DOUBLE OPINIONS.

We attempted to negotiate a scaled down version of the requirement, but were unable to do so. Treasury may also think we tried to game the outcome, since we could not get the language they wanted (thinking perhaps that because we don't think it is necessary, and, indeed, believe it to be harmful to the program, that we did not try. We have a full email chain demonstrating our efforts to get the Treasury language.

Ultimately, we do not believe this is about the specific tax structure of the deal in question (indeed, it is a very common structure). Instead, the call with the Treasury Secretary is about two things: the total amount of government support any given loan project should be able to benefit from and the role of Treasury (or, perhaps, even, who is in charge of the loan program).

On the total amount of support: this deal includes 1603 tax credits and other grants and some

state level support. If you do not know or understand the deal, it can appear that the sponsors have about 10% equity at risk. In reality, there is 37% equity in the deal until two years after completion of the project and additional protections (10 year warranties, etc) that are way above market and further protect the transaction.

1603 IS GRANT, NOT CREDIT. HE MAY CONFUSE IT WITH ITC.

WARRANTIES FROM GE, A SPONSOR. ...AND FURTHER, BOTH PROTECT THE TRANSACTION AND DEMONSTRATE SPONSOR COMMITMENT.

Some in the White House believe that sponsors should always have at least 20% or more of equity in the deal, but that makes no accommodation for either the unique features of a deal or the simple fact that Congress created all these programs expressly for the purpose of supporting these projects.

...SUPPORTING THESE PROJECTS TO STIMULATE THE ECONOMY.

The other issue is about Treasury's role. UST believes it must approve our transactions. The governing statute gives it no such rights, and, indeed, we have it in our power simply to say that they have been consulted. UST is pushing for a right to set a series of policies by which we will run the program (equity at xx; "will" opinions on all transactions; no hedges, etc) that are both beyond the scope of their role and WHICH would do significant damage to the program (we would not be able to get FIPP or any commercial level deals done as those parameters are all grossly out of market).

#### Talking Points

We need to get the Shepherds Flat deal done so that the President can make it the centerpiece of his radio address on Saturday. To do that, the CRB must vote today. We cannot get the language Treasury wants in that time frame.

We need to resolve the consulting role Treasury will play. I am not prepared to give your staff effective veto rights over the loan program deals. We have a highly experienced and deeply competent team in place. In addition to our own professionals, we use tax and deal specialists from all of the top firms. We welcome your thoughts on our transactions and on how they might be improved, but the Department of Energy has the final say on what deals get done and in what form.

If you disagree with the programs Congress has put in place and the Administration has endorsed (1603, LGPO, etc) we should decide to change them legislatively. Until that time, I believe candidates have the right to use the full range of government programs at their disposal. (I should also point out that Congress specifically exempted our work from the double-dipping issue, making it clear that they mean these programs to be used in concert with one another. )

Finally, we need to stop the bickering and the infighting. I long ago told my people to refrain from exacerbating the issue and they stopped. You need to do the same. Treasury exercises its consultative role lightly in many other programs. I need that here as well.

I believe we share a common goal in getting these loans out the door. I know Congress and the American people do.

Jonathan Silver  
Executive Director

----- Original Message -----

From: Hurlbut, Brandon  
To: Silver, Jonathan  
Cc: OConnor, Rod  
Sent: Thu Sep 30 20:38:05 2010  
Subject: Talking points

Wh decided chu and geithner need to speak first thing in morning to make sf announcement happen - we recognize all of the logisitical challenges - but you and I need to get chu up to speed - I think he is almost there from previous talks this week.

We should hand him a talking points for this call - can you work up some bullets tonight so we are ready for tomorrow morning?



**From:** James C McCrea [REDACTED]  
**Sent:** Monday, May 17, 2010 3:20 PM (GMT)  
**To:** 'Sandra Claghorn' [REDACTED]; 'Brian Oakley'  
[REDACTED]  
**Subject:** RE: Designation Notice

---

Here is a dial in:

[REDACTED]

I might be a few moments late if the Orig call runs over. But, given urgency, start without me.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Sandra Claghorn [REDACTED]  
Sent: Monday, May 17, 2010 9:01 AM  
To: Jim C McCrea; Brian Oakley  
Subject: Re: Designation Notice

Works for me as well.

Thanks guys.

S

Sent from my Verizon Wireless BlackBerry

-----Original Message-----

From: James C McCrea [REDACTED]  
Date: Mon, 17 May 2010 11:32:03  
To: [REDACTED]  
Cc: [REDACTED]  
Subject: RE: Designation Notice

1024x768 Clean false false false EN-US X-NONE X-NONE MicrosoftInternetExplorer4

Noon works for me.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

From: [REDACTED]  
Sent: Monday, May 17, 2010 7:25 AM  
To: James C McCrea  
Cc: [REDACTED]  
Subject: RE: Designation Notice

I'm lappy to jump in. I've got a long scheduled dental appointment at 9:15 and a call at 11, so AM will be a little tight. Do you want to plan for noon?

Brian Oakley  
Scully Capital  
[REDACTED]

From: James C McCrea [REDACTED]  
Sent: Monday, May 17, 2010 1:16 AM  
To: [REDACTED]  
Cc: [REDACTED]  
Subject: RE: Designation Notice

Brian & Sandy -

To fill Brian in, we have a pretty good mess on First Wind and it is looking like it is going to get a lot worse and quickly at that. Someone is pressing Jonathan who is now pressing hard on the everyone as the sponsor has an IPO in the works. I have told Jonathan that the deal has huge issues and that the sponsor's overdriving is not helping at all and that further, the sponsor's pending IPO is irrelevant. Monique and Hai won't be able to get this into shape and Sandy is way out of her comfort zone. I don't know what else to do to straighten this out other than to ask Brian to drop everything that he is working on (other than getting the Gate 2 numbers for US Geothermal so I can get them to OMB) and to then help us get First Wind unscrambled. Given the mess we are in and Sandy will have to serve as a guide for Brian or he will never be able to pick this up in time if he has to figure the transaction out on his own from scratch. Unfortunately, there is no one on the Origination side that can do this so I don't know what else to do.

When would you both be available for a call to begin the unscrambling process? 9AM Monday? If not, suggest another time. I will skip the ATVM call tomorrow but do have to be on the Origination call at 11 and OMB/DOE tag up at 1. Dave did not get the Tag Up agenda out Fri so I will have to work on that with him first thing but we should be done before 9.

Jim

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]

From: Sandra Claghorn [REDACTED]  
Sent: Monday, May 17, 2010 12:22 AM  
To: Jim McCrea  
Subject: FW: Designation Notice

Jim-

Given the email chain from Jonathan, I thought it was appropriate to forward the emails below. This is from our discussions with FFB on Friday regarding the principal amortization schedule on the FFB Note. Please note that neither Monique nor Hai are part of


this process. Please also note that we are still in the process of figuring out how the FFB will calculate the amortization schedule on the loan. I have been referred to as the "numbers person" on the deal and I don't believe anyone else is checking them through the documents.




As I mentioned before, I am quite far outside my comfort zone with this deal. I see my job as performing credit review and analysis for my client. This job has gradually expanded to the point where I feel there is an expectation that I am somehow responsible for executing the deal - and even educating my client on how their process works. As such, I am going to have to pull back in my responsibilities here. I'm thinking it might be a good idea to find someone else to lead the execution of the deal through the Federal process. Preferably a Fed who understands governmental requirements and protocol and who will be responsible for ensuring that the numbers tie through all the documents. I'm happy to continue my credit role (i.e. reviewing docs and models, creating pitches and templates, etc.) but do not feel qualified to do more than that.

Sorry to throw yet another wrench into the process, but I thought it was important to speak up given my increasing discomfort with my role here.

Thanks-  
Sandy

Sandra Claghorn  
Credit Consultant  
LGPO / ATVM




-----  
From:   
To: @hq.doe.gov;   
Date: Fri, 14 May 2010 13:47:36 -0700  
Subject: RE: Designation Notice  
Sandy,

Should the numerator in the formula be changed to 1.940.018.61538462? Otherwise, there will be a slight overpayment each quarter. Of course, the resulting dollar amounts would still need rounding. That is why I suggested having three steps: 1-14, 15-65, and 66.


Allan

-----  
From: Heimert, Kimberly @hq.doe.gov  
Sent: Friday, May 14, 2010 4:44 PM  
To: Marks, Allan; 'Sandra Claghorn'  
Subject: RE: Designation Notice

What? I just need somebody to tell me if the numbers are right or not, please.

\*\*\*\*\*  
Kimberly Heimert  
U. S. Department of Energy  
Office of the Loan Guarantee Program  


JM\_00077472



From: Marks, Allan [REDACTED]  
Sent: Friday, May 14, 2010 4:39 PM  
To: Heimert, Kimberly; 'Sandra Clagborn'  
Subject: RE: Designation Notice

By the way, for the formula, I note that the numerator for payment installments #15 through #66 of \$1,940,019 is a rounded number while the denominator (\$117,338,968) is not. If the rounded number were summed, the total would be \$20 higher. The sum shown in column I of the amort schedule (which is then picked up in column C) is the sum of the actual mathematical amounts including fractions of a cent (\$1,940,018.61538462), not the sum of the rounded amounts.

I just wanted to alert you to it in case FFB is confused by how the formula works or the discrepancy.

Regards,

Allan

-----  
From: Heimert, Kimberly [REDACTED] [mailto:[kheimert@hq.doe.gov](mailto:kheimert@hq.doe.gov)]  
Sent: Friday, May 14, 2010 4:28 PM  
To: Marks, Allan  
Cc: 'Sandra Clagborn'  
Subject: RE: Designation Notice  
Got it. Thanks. As soon as Sandy confirms that Pearl is ok with the formula provided below, I'll send the proposed language to FFB.

K

\*\*\*\*\*  
Kimberly Heimert  
U.S. Department of Energy  
Office of the Loan Guarantee Program  


From: Marks, Allan [REDACTED]  
Sent: Friday, May 14, 2010 3:20 PM  
To: Heimert, Kimberly  
Cc: 'Sandra Clagborn'  
Subject: RE: Designation Notice

Slightly revised:

"graduated principal installments" -- the amount of each of the first fourteen quarterly principal installments with respect to each Advance shall be an amount equal to the amount of the Advance multiplied by a fraction, the numerator of which is 1,175,000 and the denominator of which is 117,330,968; the amount of each of the remaining quarterly principal installments of such Advance shall be an amount equal to the amount of the Advance multiplied by a fraction, the numerator of which is 1,940,019 and the denominator of which is 117,330,968, and shall, in the aggregate, be sufficient to repay the principal amount of such Advance in full by the Maturity Date.

JM\_00077473

For the second step, do you want to say "each of the remaining quarterly principal installments", or "each of fifteenth through sixty-sixth quarterly principal installments"? I had the impression that Peter would prefer the latter. Or perhaps just leave it as is and add a clause at the start of the provision (if not already covered elsewhere) stating that "the principal of each Advance will be repaid in 66 graduated principal installments, as follows".

Feel free to call if you wish to discuss.

Regards,

Allan

-----  
From: Heimert, Kimberly [mailto: [REDACTED]@hq.doe.gov]  
Sent: Friday, May 14, 2010 11:50 AM  
To: 'Sandra Claghorn'; Marks, Allan  
Subject: RE: Designation Notice  
Sandy and Allan.

I propose that this is the way that we describe what Sandy has done in the amortization schedule she attached below. What do you think? (Is product the correct term?)

Sandy, can you run this methodology by Pearl, to make sure she's ok with it? That way, I can send this language with a message that it is our understanding that the "formula" is acceptable to Pearl.

"graduated principal installments" – the amount of each of the first fourteen quarterly principal installments shall be an amount equal to the [product] of the amount of the Advance, multiplied by a fraction, the numerator of which is 1,175,000 and the denominator of which is 117,330,968, the amount of each of the remaining quarterly principal installments shall be an amount equal to the [product] of the amount of the Advance, multiplied by a fraction, the numerator of which is 1,940,019 and the denominator of which is 117,330,968, and shall, in the aggregate, be sufficient to repay the principal amount of such Advance in full on the Maturity Date.

K

-----  
Kimberly Heimert  
U.S. Department of Energy  
Office of the Loan Guarantee Program  
[REDACTED]

From: Sandra Claghorn [mailto: [REDACTED]]  
Sent: Friday, May 14, 2010 2:12 PM  
To: [REDACTED]; Heimert, Kimberly  
Subject: RE: Designation Notice

Allan and Kimberly -

I went back through the amortization schedule that we've been working with, but I think it is unchanged from the one I sent around a couple of days ago. I was trying to build in a trigger so we could turn the ITC on and off, but figured I'd get this to you first and continue working on that in the interim.

Basically, columns I and J calculate the graduated principal payment schedule according to the fraction of 1,175,000 over 117,330,968 for periods 1-14. Periods 15-66 is determined by the fraction of \$1,940,019 over \$117,330,968. I zeroed out the ITC so we could focus on getting the principal amortization for the Note. I will put the ITC back in to calculate the principal amortization for the credit subsidy calculation.

Kimberly, you've already seen this but, again, unless I'm missing something, I think it is unchanged.

If you would like, I can break it out on an advance-by-advance basis just to be sure we're presenting it properly. That is relatively easy and I'm happy to do it if you think it would help.

As always, call or email if you would like to discuss.

Sandy

Sandra Claghorn  
Credit Consultant  
LGPO / ATVM



> From: [REDACTED]  
> To: [REDACTED]@hq.doe.gov  
> CC: [REDACTED]  
> Date: Fri, 14 May 2010 10:18:39 -0700  
> Subject: RE: Designation Notice

> Kimberly,

> Just one comment: In item 5, shouldn't the final maturity date be June 28, not June 27, 2028?

> Allan

> -----Original Message-----

> From: Heimert, Kimberly [REDACTED]@hq.doe.gov  
> Sent: Friday, May 14, 2010 12:52 PM  
> To: Marks, Allan  
> Cc: [REDACTED]  
> Subject: Designation Notice

> Based on the feedback below, please review the new draft attached and let me know if you think it is accurate....

>  
>  
>

> \*\*\*\*\*  
> Kimberly Heimert  
> U.S. Department of Energy  
> Office of the Loan Guarantee Program



> -----Original Message-----

> From: Heimert, Kimberly  
> Sent: Friday, May 14, 2010 12:52 PM  
> To: [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov  
> Cc: [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]

> Subject: RE: "graduated principal installments"

>

> I understand...

>

>

> \*\*\*\*\*

> Kimberly Heimert

> U.S. Department of Energy

> Office of the Loan Guarantee Program

[REDACTED]

>

>

> -----Original Message-----

> From: [REDACTED]@do.treas.gov [REDACTED]@do.treas.gov]

> Sent: Friday, May 14, 2010 12:51 PM

> To: Heimert, Kimberly; [REDACTED]@do.treas.gov

> Cc: [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]

> Subject: RE: "graduated principal installments"

>

> Just to reiterate: the other DOE loans ultimately backed away from the amortization having to begin exactly 18 months after closing.

> -----Original Message-----

> From: Heimert, Kimberly [REDACTED]@hq.doe.gov]

> Sent: Friday, May 14, 2010 12:40 PM

> To: Burner, Gary; Bieger, Peter

> Cc: Buenvenida, Pearl; Romano, Loren; amarks@milbank.com; sandra.claghorn@hotmail.com

> Subject: RE: "graduated principal installments"

>

> Does that mean the answer is no... not possible?

>

> If so, we will have to set the Payment Dates at the time of closing, as it will have to provide for the first Payment Date to be exactly 18 months after the closing (which is the same date as the end of the Availability Period).

>

>

> \*\*\*\*\*

> Kimberly Heimert

> U.S. Department of Energy

> Office of the Loan Guarantee Program

[REDACTED]

>

>

> -----Original Message-----

> From: [REDACTED]@do.treas.gov [REDACTED]@do.treas.gov]

> Sent: Friday, May 14, 2010 12:38 PM

> To: Heimert, Kimberly; [REDACTED]@do.treas.gov

> Cc: [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]

> Subject: RE: "graduated principal installments"

>

> Kimberly,

>

> We will not be doing short coupons at the end of a schedule.

>

> Gary

>

>

> -----Original Message-----  
> From: Heimert, Kimberly [REDACTED]@hq.doe.gov]  
> Sent: Friday, May 14, 2010 12:36 PM  
> To: Bieger, Peter  
> Cc: Buenvenida, Pearl; Romano, Loren; Burner, Gary; [REDACTED]  
> Subject: RE: "graduated principal installments"

>  
> Assuming the below is possible, I've attached a slightly revised draft designation notice.  
>  
> By the way, the change is necessary because we are not allowed to have a term of more than 18 years after the initial advance.  
>  
> Thanks,  
> Kimberly

>  
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>  
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>  
>  
> \*\*\*\*\*  
> Kimberly Heimert  
> U.S. Department of Energy  
> Office of the Loan Guarantee Program

[REDACTED]

>  
>  
> -----Original Message-----  
> From: Heimert, Kimberly  
> Sent: Friday, May 14, 2010 12:33 PM  
> To: [REDACTED]@do.treas.gov  
> Cc: [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]  
> Subject: RE: "graduated principal installments"

>  
> Pctc:  
>  
> Quick question... did you tell me that the Maturity Date had to be a Payment Date? Is it possible for it to be another date, if we specify what that date is? And, perhaps, specify in the definition of Payment Date that the Maturity Date is also a Payment Date?  
>  
> So... The language would read something like this...  
>  
> "Payment Date means March 15, June 15, September 15, and December 15 of each year and the Maturity Date."  
>  
> "Maturity Date means June 27, 2028."  
>  
> That would mean, of course, that in 2028, they would have Payment Dates on March 15, June 15, and June 27,  
>  
> Is this possible?  
>  
> Thanks,  
> Kimberly

>  
>  
> \*\*\*\*\*  
> Kimberly Heimert  
> U.S. Department of Energy  
> Office of the Loan Guarantee Program



>  
>  
>  
>  
>-----Original Message-----  
> From: [REDACTED]@do.treas.gov [REDACTED]@do.treas.gov]  
> Sent: Friday, May 14, 2010 11:34 AM  
> To: Heimert, Kimberly  
> Cc: [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]

> Subject: RE: "graduated principal installments"  
>  
> Are we not doing an 11:30 call?

>-----Original Message-----  
> From: Heimert, Kimberly [REDACTED]@hq.doe.gov]  
> Sent: Friday, May 14, 2010 10:35 AM  
> To: Bieger, Peter  
> Cc: Buenavenda, Pearl, Romano, Loren, Burner, Gary, [REDACTED], 'Sandra Claghorn'  
> Subject: RE: "graduated principal installments"

> Pete:  
>  
> After having a chance to review your email below a bit more and discuss it with some members of our team, I do think that it reflects what our intention is, given how FFB approaches Advances.  
>  
> I have made a few suggestions on the note provisions below, which are in the attached document.

> Thanks very much for getting back to us so quickly on this issue.  
>  
> Kimberly

>  
>  
>  
>  
>  
>  
>\*\*\*\*\*  
> Kimberly Heimert  
> U.S. Department of Energy  
> Office of the Loan Guarantee Program

[REDACTED]

>  
>  
> From: Heimert, Kimberly  
> Sent: Friday, May 14, 2010 10:07 AM  
> To: [REDACTED]@do.treas.gov  
> Cc: [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED] 'Sandra Claghorn'  
> Subject: RE: "graduated principal installments"

> Sorry... forgot to attach the designation notice draft. It is attached now.  
>  
> Kimberly

>  
>  
>  
>  
>  
>  
>\*\*\*\*\*  
> Kimberly Heimert  
> U.S. Department of Energy

[REDACTED]

[REDACTED]

>  
> From: Heimert, Kimberly  
> Sent: Friday, May 14, 2010 9:34 AM  
> To: [REDACTED]@do.treas.gov  
> Cc: [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED] Sandra  
Claghorn  
> Subject: RE: "graduated principal installments"

> Pete:

>  
> Thanks very much. We're looking at this among ourselves, but it does seem as though the approach you describe below is the approach we've been anticipating. I have not thought through the prepayment text yet, but will do so.

>  
> My only comment (at this point - pending discussion with the LGPO team and a closer review of the prepayment text) is that if we assume that the entire loan is disbursed prior to the first principal repayment date, we should know the total principal payment amounts for each payment in advance. However, that does assume (as noted) that all of the loan is disbursed prior to the first principal payment date.

> I've attached a revised draft designation notice that reflects the various dates, assuming a close of June 28, 2010.

> Look forward to talking to you at 11:30.

> Kimberly

> \*\*\*\*\*  
> Kimberly Heimert  
> U.S. Department of Energy  
> Office of the Loan Guarantee Program

[REDACTED]

>  
> From: [REDACTED]@do.treas.gov [REDACTED]@do.treas.gov]  
> Sent: Thursday, May 13, 2010 7:06 PM  
> To: Heimert, Kimberly  
> Cc: [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov; [REDACTED]@do.treas.gov  
> Subject: "graduated principal installments"

> Kimberly:

>  
> In addition to doing graduated principal repayment through a master principal repayment schedule, FFB can also do principal repayment of each Advance through graduated principal installments as set out below. Under this method, each Advance would be assigned an amortization schedule according to the agreed-upon graduated principal repayment formula. Then, on each Payment Date, the amount due would be the sum of the respective graduated principal installment and accrued interest on the unpaid principal amount of each Advance. If one or more particular Advances was then prepaid, the amounts due on each following Payment Date would be the sum of the graduated principal and accrued interest payments due for the remaining Advances (like your removal of one layer of the layer cake analogy).

> The one result that this graduated principal payment methodology does not achieve, however, is a precisely determinable-in-advance master principal repayment schedule.

> Looking forward to speaking with you all more tomorrow.

> Pete

>  
> > 8. Payment of Principal.

>  
> (a) The principal amount of each Advance shall be payable in installments, which payments shall be due beginning on the particular date specified as the "First Principal Payment Date" on page 1 of this Note (such date being the "First Principal Payment Date"), and shall be due on each Payment Date to occur thereafter until the principal of the respective Advance is repaid in full on or before the Maturity Date [; provided, however, that with respect to each Advance that is made after the First Principal Payment Date, principal installments shall be due beginning on the second Payment Date to occur after the date on which the respective Advance is made].

>  
> (b) With respect to each Advance, the amount of principal due on the First Principal Payment Date, on each Payment Date to occur thereafter, and on the Maturity Date shall be, in each case, the amount of the principal installment due under a principal repayment schedule for the respective Advance that is computed as follows.

>  
> "graduated principal installments" -- the amount of each of the first [one-fifth]/[one-fourth]/[one-third] (or nearest number of payments that rounds to [one-fifth]/ [one-fourth]/[one-third]) of the total number of quarterly principal installments shall be substantially equal to [xx% ??] of the amount of each of the remaining quarterly principal installments, and shall be sufficient, when added to all other such quarterly installments of graduated principal, to repay the principal amount of such Advance in full on the Maturity Date.

>  
> \*\*\*\*\*  
> 15. Prepayments

>  
> (a) The Borrower may elect to prepay all or any portion of the outstanding principal amount of any Advance made under this Note, or to prepay this Note in its entirety, in the manner, at the price, and subject to the limitations specified in this paragraph 15 (each such election being a "Prepayment Election").

>  
> ♦ ♦ ♦ ♦  
> (g) In the event that the Borrower makes a Prepayment Election with respect to any Portion of an Advance, then the Prepayment Price paid for such Portion will be applied as provided in paragraph 14 of this Note and, with respect to application to outstanding principal, such Prepayment Price shall be applied to principal installments in the inverse order of maturity.

>  
> (h) In the event that the Borrower makes a Prepayment Election with respect to any Portion of an Advance, then the outstanding principal amount of such Advance, after such partial prepayment, shall be due and payable in accordance with this subparagraph (h).

>  
> (1) The amount of the quarterly principal installments that will be due after such partial prepayment shall be equal to the quarterly installments of graduated principal that were due in accordance with the principal repayment schedule that applied to such Advance immediately before such partial prepayment.

>  
> (2) For each such Advance, the quarterly installments of graduated principal shall be due beginning on the first Payment Date to occur after such partial prepayment, and shall be due on each Payment Date to occur thereafter up through and including the date on which the entire principal amount of such Advance, and all unpaid interest (and Late Charges, if any) accrued thereon, are paid.

>  
>  
>  
>  
>  
>  
> Peter A. Bieger  
> Deputy Assistant General Counsel  
> (Banking and Finance)  
> Department of the Treasury

>  
>  
> -----  
>  
> IRS Circular 230 Disclosure: U.S. federal tax advice in the foregoing message from Milbank, Tweed, Hadley & McCloy LLP is not intended or written to be, and cannot be used, by any person for the purpose of avoiding tax penalties that may be imposed regarding the transactions or matters addressed. Some of that advice may have been written to support the promotion or marketing of the

transactions or matters addressed within the meaning of IRS Circular 230, in which case you should seek advice based on your particular circumstances from an independent tax advisor.

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**From:** James C McCrea - [REDACTED]  
**Sent:** Tuesday, August 10, 2010 12:19 AM (GMT)  
**To:** 'Heimert, Kimberly' <[REDACTED]@hq.doe.gov>; 'Sandy Claghorn'  
[REDACTED]; 'Brian Oakley' [REDACTED];  
Anthony Curcio [REDACTED]  
**Subject:** RE: Beacon/Stephentown - CLOSED

---

Kimberly --  
No big deal. Half the time I leave people out of large distribution e-mails and are all the time going back and adding people. I bet Fri was a bear and you must be glad to have it done!

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Heimert, Kimberly [REDACTED]@hq.doe.gov  
Sent: Monday, August 09, 2010 1:23 PM  
To: [REDACTED]; Sandy Claghorn; Brian Oakley; J. Anthony Curcio  
Subject: RE: Beacon/Stephentown - CLOSED

I just sent an email to Sandy. I'm so sorry that I didn't tell all of you guys last week. It was absolutely inadvertent and inexcusable. There were some internal issues with stars and stripes that had me pulling my hair out all day Friday. When they were finally resolved, I just sent out a quick email and bolted. Why I didn't copy you guys, I don't know -- I attribute it only to temporary insanity caused by ... here.

Please know that I am immensely grateful for your input, participation, support, and expertise.

I'll forward to you an email that Jonathan sent around, which you definitely should have gotten, as well.

Kimberly

\*\*\*\*\*  
Kimberly Heimert  
U.S. Department of Energy  
Office of the Loan Guarantee Program

[REDACTED]

-----Original Message-----

From: [REDACTED]  
Sent: Monday, August 09, 2010 1:18 PM  
To: Sandy Claghorn; Brian Oakley; J. Anthony Curcio  
Cc: Heimert, Kimberly  
Subject: Fw: Beacon/Stephentown - CLOSED

It appears that Beacon closed last Friday.

JM\_00070351

Jim  
Sent via BlackBerry by AT&T

-----Original Message-----

From: "McCrea, Jim" <[REDACTED]@Hq.Doe.Gov>  
Date: Mon, 09 Aug 2010 09:14:31  
To: [REDACTED]  
Subject: FW: Beacon/Stephentown - CLOSED

-----  
From: Silver, Jonathan  
Sent: Monday, August 09, 2010 9:14:48 AM  
To: McCrea, Jim  
Subject: FW: Beacon/Stephentown - CLOSED  
Auto forwarded by a Rule

Sent a note to Alvin, but wanted to let you know, too. I would really like to move this project through closing in August if that is at all possible. Its tied to larger events.

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
[REDACTED]

-----Original Message-----

From: Heimert, Kimberly  
Sent: Friday, August 06, 2010 4:01 PM  
To: Silver, Jonathan  
Subject: RE: Beacon/Stephentown - CLOSED

I'm not working on Blue Mountain -- Alvin is. However, I understand that the OMB 28-day clock expires August 25. Assuming they actually provide the ok to the credit subsidy score by then, closing should be able to occur in the first week of September, if all of the CPs are met by then.

I don't know the status of the CPs. However, I am talking to Ruth, Roger, and outside counsel next week, to make sure they know what the closing process is.

Kimberly

\*\*\*\*\*  
Kimberly Heimert  
U.S. Department of Energy  
Office of the Loan Guarantee Program  
[REDACTED]


-----Original Message-----

From: Silver, Jonathan  
Sent: Friday, August 06, 2010 3:23 PM  
To: Heimert, Kimberly  
Subject: Re: Beacon/Stephentown - CLOSED

JM\_00070352

Just out of curiosity, where are we with blue mountain?


Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy



----- Original Message -----  
From: Heimert, Kimberly  
To: Silver, Jonathan  
Sent: Fri Aug 06 15:21:28 2010  
Subject: RE: Beacon/Stephentown - CLOSED

THAT is the best idea I've heard all week.... And happy to talk next week, too. :)


\*\*\*\*\*  
Kimberly Heimert  
U.S. Department of Energy  
Office of the Loan Guarantee Program



-----Original Message-----  
From: Silver, Jonathan  
Sent: Friday, August 06, 2010 3:21 PM  
To: Heimert, Kimberly  
Subject: Re: Beacon/Stephentown - CLOSED

An enormous thank you to you specifically. I know this was not easy or pleasant.  
Let's get together next week to discuss lessons learned.  
Have a scotch! :)  
J

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy



----- Original Message -----  
From: Heimert, Kimberly  
To: Westerheim, Ove; Ku, Ruth; Suissa, Yaniv  
Cc: Thomas, Sharon (LP); Kim, Dong; Taylor, Sonia; Silver, Jonathan; Frantz, David; Harris, Scott Blake; Richardson, Susan; Tamvir, Shufia  
Sent: Fri Aug 06 15:14:33 2010  
Subject: Beacon/Stephentown - CLOSED

The Beacon/Stephentown transaction has closed.

Congratulations to all!

Kimberly

\*\*\*\*\*

Kimberly Heimert  
U.S. Department of Energy  
Office of the Loan Guarantee Program





**From:** Roger McDaniel [REDACTED]  
**Sent:** Thursday, August 5, 2010 2:31 AM (GMT)  
**To:** 'James C McCrea' [REDACTED]  
**Subject:** RE: Bowen

---

I wonder whether we should be doing FIPP deals at all. In the other deals, at least we are trying to play a governmental role. In FIPP, we are trying to be a commercial financial institution, which we are constitutionally (lower-case) difficult for us, especially when "us" includes OMB, Treasury and the White House. It's hard enough in 1703 transactions, where our role is much clearer. With FIPP, it seems like all we do is either (a) enable borrowers and lenders to make more money or (b) piss them off or (c) (in most cases) both.

---

**From:** James C McCrea [REDACTED]  
**Sent:** Wednesday, August 04, 2010 10:25 PM  
**To:** 'Roger McDaniel'  
**Subject:** Bowen

Forgot to mention but you will hear from Rob tomorrow. Corrigan called me with Rob this afternoon. To the extent he is not otherwise occupied with supporting Peter (which I will work with him), he will be spinning up on manufacturing and also will be available for FIPP as a second to you guys. I heard from them that John Hancock has a bunch of Nevada Energy transactions in Part 1. He knows Anderson at Hancock pretty well and I told Dick that before he can do anything on Hancock, we need to clear it with Kimberly/Susan for conflict issues. Dick was rather surprised but he is not very sensitive to conflicts and the Loan Programs has moved far, far beyond Dick's thinking on conflicts.

On the LOC's, my hair hurts! Hate to be pessimistic but I have been burned so many times on things that are far simpler. I just do not have a clue on how to take anything other than plain vanilla through OMB/Treasury and I am wrong on plain vanilla more often than not.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

**From:** Roger McDaniel - [REDACTED]  
**Sent:** Monday, September 27, 2010 11:49 AM (GMT)  
**To:** Brian Oakley [REDACTED]  
**Cc:** 'Karine Khatcherian' [REDACTED]; 'Jim McCrea' [REDACTED]  
**Subject:** Calculations for Treasury--Shepherds Flat  
**Attach:** Notes on Greengate NPV analysis vs Treasury rev2 - KK.docx; RE Summary of Timing Tax Benefit Valuation (Ameer 9-26-10).htm; CSF Issues for Discussion (Treasury).docx; CSF Tax Benefit Analysis (Greengate 9-24-10).xlsm; CSF Tax Benefit Analysis (Greengate 9-24-10)(linked to basic CSF model).xlsm; Shepherds Flat Financials 9\_26\_2010 (Treasury).xls; CSF Depreciation Analysis Methodology Summary 09242010.docx; CSF Issues for Discussion (DOE 9-24-10).docx; CSF Model\_060410\_DOE-BC\_Tax Analysis.xlsm

---

Brian:

There was a big meeting at the White House on Friday with Treasury and OMB. The main focus was issues that Treasury raised about the size of the governmental benefits enjoyed by Shepherds Flat—cash grant, loan guarantee and tax depreciation—and whether they represent government support for an excessive portion of the project cost. We received Treasury's issues sheet on Friday morning (item 1 below), and Greengate did a very quick analysis of the same issues (having seen Treasury's text but not its analysis), and we inserted GG's results into the issues list for Jim and Jonathan to take to the 4:00 pm meeting (item 2).

We could use your help. Treasury approached issues one way, Greengate took a different approach, and it appears to Karine and me that neither one got it quite right (item 7). Our task is to get together with GG as soon as possible (starting today) on a DOE approach and then go to Treasury to reconcile approaches with them.

Value of Guarantee: There are different ways to calculate this, but it's not likely to be the biggest issue.

IRR and Tax Benefits: Treasury and GG measure the same items but combine them differently, so in places it's hard to combine them. For example, one question is this: When you calculate the value of tax depreciation, what do you compare it to: 5-year MACRS vs. book depreciation? Or vs. something else? GG calculates tax benefits as (tax depreciation less phantom income from the non-deductibility of principal payments). But Treasury looks at the value of tax depreciation compared to no depreciation at all, and I don't believe that Treasury includes that phantom income in any of its calculations.

Treasury uses a 10% discount rate for its NPV calculations.

The main thing I would appreciate your help with is GG's approach to the NPV of tax benefits. (i) They calculate depreciation net of phantom income for each period. (ii) Then they treat the positive difference each year (representing deferral of taxes) as an interest free loan from the government. (iii) They show a 5% p.a. income stream from the balance on that loan as it grows and then falls. (iv) Then they apply the 10% discount rate to that income stream to get an NPV, and they consider that to be the NPV of the tax benefits.

It seems to me, to Jim (but only after hearing a quick description) and to Karine (I believe) that they are doing it wrong. I thought that the 10% discount rate represented the cost of capital (or the converse, earnings opportunity), so that applying the 5% income stream is adding something that is already part of the calculation.

I'll call you this morning to see if we can get some of your time.

I have attached a few items.

1. The one-page issues list from Treasury, which we received Friday morning (CSF Issues for Discussion (Treasury).docx)
2. DOE's version of that issues list, with additional numbers based on Greengate's quick analysis on Friday (CSF Issues for Discussion (DOE 9-24-10).docx)
3. Treasury's calculations underlying item 1 (Shepherds Flat Financials 9 26 2010 (Treasury) xls)
4. Greengate's competing analysis (CSF Tax Benefit Analysis (Greengate 9-24-10).xism)
5. John Ryan's explanation of how Greengate calculates the NPV of depreciation benefits (CSF Depreciation Analysis Methodology Summary 09242010.docx)
6. The version of the Shepherds Flat model that Greengate used for its calculations in item 4 (CSF Model\_060410 DOE-BC\_Tax Analysis.xism)
7. Notes on Treasury's approach vs. Greengate's approach that Karine and I have put together (Notes on Greengate NPV analysis vs Treasury rev2 - KK.docx).

Thanks.

Roger

---

**From:** [REDACTED]  
**Sent:** Sunday, September 26, 2010 10:33 PM  
**To:** Roger McDaniel  
**Subject:** RE: Updated notes

Here are my comments. Separated the sheet into 2 sections:

- comments on assumptions used
- comments on methodology / definition
- comments on calculations

The more I think about this, the more I end up with the following conclusions:

- Regarding depreciation benefits, the question is a bit academic. There are multiple ways of defining this, and no real reason why one would be better than the other. The comments we made are accurate, and people can agree to disagree about this. Assumptions should be consistent and accurate though (example of the tax rate and depreciation schedule). More of a philosophical/strategic question though regarding definition of tax benefits.
- Regarding IRR however, there is a real definition of that term, and it should be "accurately" calculated. T's formula is wrong. As discussed, does not take into account taxable income, but rather distributions for purposes of calculating taxes. I haven't checked yet Greengate's formula to see if it is more accurate. Will do that in the morning.
- Regardless of what we decide for the first point, would like Greengate to explain their rationale. Still don't understand it at all - would suggest having a call with them in the morning to go over their reasoning.

---

----- Original Message -----  
**Subject:** Updated notes  
**From:** "Roger McDaniel" [REDACTED]  
**Date:** Sun, September 26, 2010 4:42 pm  
**To:** [REDACTED]

*Roger McDaniel*  
*President*  
*Madigan Resources, LLC*

[REDACTED]



**From:** James C McCrea [REDACTED]  
**Sent:** Friday, October 1, 2010 1:01 PM (GMT)  
**To:** 'Silver, Jonathan' [REDACTED]@hq.doe.gov>; 'Schultz, Douglas'  
[REDACTED]@hq.doe.gov>; 'Ku, Ruth' <[REDACTED]@hq.doe.gov>  
**Subject:** RE: Treasury position

---

We do not have any indication that Treasury has consulted external tax counsel. As far as we know, they are working with internal Treasury resources. They have not indicated any specific issues but rather a general concern that there could be issues and that they therefore need the comfort that they are seeking. Their concern is that their consultation constitutes approval of the structure of the transaction and that if the IRS later challenges the structure, it will be embarrassing for USG. Based on our understanding of the transaction, including review by our internal and external counsel, we have no indication whatsoever that there are any specific or significant tax issues in it.

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Silver, Jonathan [REDACTED]@hq.doe.gov]  
Sent: Friday, October 01, 2010 8:54 AM  
To: Schultz, Douglas; [REDACTED] Ku, Ruth  
Subject: Fw: Treasury position

Can any of you answer the secretary's question?

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

----- Original Message -----

From: Hurlbut, Brandon  
To: Silver, Jonathan  
Sent: Fri Oct 01 08:50:55 2010  
Subject: Fw: Treasury position

----- Original Message -----

From: SCHU  
To: O'Connor, Rod; Hurlbut, Brandon  
Sent: Fri Oct 01 08:49:11 2010  
Subject: RE: Treasury position

Is it still true that Treasury has not consulted tax lawyers for their opinion?

Steven Chu  
Department of Energy

-----Original Message-----

From: O'Connor, Rod  
Sent: Thursday, September 30, 2010 11:18 PM

To: SCHU, Hurlbut, Brandon  
Subject: Fw: Treasury position

More background below. I honestly don't know who is right on this one, but if we cannot work this out, we probably need to demand a Rouse, Zients, Geitner meeting in the next week. If this many folks have the ability to stop a loan, we will only get 3-4 more done this year. No way to run a railroad.

----- Original Message -----

From: Aldy, Joseph E. [REDACTED]@who.eop.gov>  
To: O'Connor, Rod  
Sent: Thu Sep 30 22:48:33 2010  
Subject: Treasury position

Mark Patterson conferred w/ Jeffrey Goldstein (U/S), Michael Mundaca (A/S) and Mary Müller (A/S). These three are holding firm and recommend that Geithner oppose a deal without adequate assurances on the tax issue. Mark does not believe that Geithner will agree to something that Jeffrey, Michael, and Mary are opposed to.

---

**From:** Joshua Bar-Lev  
**Sent:** Saturday, October 02, 2010 3:20 AM  
**To:** Senior Management Team  
**Subject:** Fw: Fwd: EMBARGOED: Weekly Address: President Obama Lauds Clean Energy Projects as Key to Creating Jobs and Building a Stronger Economy

-----  
Sent using BlackBerry

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**From:** John Mulligan  
**To:** John Woolard; Keely Wachs; Joshua Bar-Lev; Steve McBee - [REDACTED]; Gabe Horwitz [REDACTED]; Arthur Haubenstock  
**Sent:** Fri Oct 01 18:03:11 2010  
**Subject:** Fwd: EMBARGOED: Weekly Address: President Obama Lauds Clean Energy Projects as Key to Creating Jobs and Building a Stronger Economy

See below from WH- embargoed until 6am tmrw

Sent from my iPhone

Begin forwarded message:

**From:** "Nelson, Greg" [REDACTED] <[REDACTED]@wha.eop.gov>  
**Date:** October 1, 2010 6:53:38 PM EDT  
**To:** [REDACTED] <[REDACTED]>  
**Subject:** Fw: EMBARGOED: Weekly Address: President Obama Lauds Clean Energy Projects as Key to Creating Jobs and Building a Stronger Economy

John --

DOE was going to give you a heads-up, so hopefully this isn't a surprise, but FYI on the mention below.

Note the embargo until 6 AM, so please keep it close until then.

Sorry we couldn't make it work this week -- Valeric was out and about with the President and lots of other things going on today.

But would be happy to catch up next week.

Best.

G.

---

**From:** White House Press Office [REDACTED]  
**To:** Nelson, Greg  
**Sent:** Fri Oct 01 18:43:42 2010  
**Subject:** EMBARGOED: Weekly Address: President Obama Lauds Clean Energy Projects as Key to Creating Jobs and Building a Stronger Economy

EMBARGOED UNTIL 6:00 AM ET, SATURDAY, October 2, 2010

## **WEEKLY ADDRESS: President Obama Lauds Clean Energy Projects as Key to Creating Jobs and Building a Stronger Economy**

WASHINGTON – In this week’s address, President Obama announced that – due to clean energy incentives launched by his administration – a company called BrightSource plans to break ground this month on a new, revolutionary type of solar power plant. This will put about 1,000 people to work building the facility. And once completed, it will power up to 140,000 homes, making it the largest such plant in the world. But for all the potential of clean energy projects like this one, the GOP recently pledged to scrap all incentives for these projects, even ones currently in progress.

The full audio of the address is [HERE](#). The video can be viewed online at [www.whitehouse.gov](http://www.whitehouse.gov).

### **Remarks of President Barack Obama Weekly Address The White House October 2, 2010**

Over the past twenty months, we’ve been fighting not just to create more jobs today, but to rebuild our economy on a stronger foundation. Our future as a nation depends on making sure that the jobs and industries of the 21st century take root here in America. And there is perhaps no industry with more potential to create jobs now – and growth in the coming years – than clean energy.

For decades, we’ve talked about the importance of ending our dependence on foreign oil and pursuing new kinds of energy, like wind and solar power. But for just as long, progress had been prevented at every turn by the special interests and their allies in Washington.

So, year after year, our dependence on foreign oil grew. Families have been held hostage to spikes in gas prices. Good manufacturing jobs have gone overseas. And we’ve seen companies produce new energy technologies and high-skilled jobs not in America, but in countries like China, India and Germany.

It was essential – for our economy, our security, and our planet – that we finally tackle this challenge. That is why, since we took office, my administration has made an historic commitment to promote clean energy technology. This will mean hundreds of thousands of new American jobs by 2012. Jobs for contractors to install energy-saving windows and insulation. Jobs for factory workers to build high-tech vehicle batteries, electric cars, and hybrid trucks. Jobs for engineers and construction crews to create wind farms and solar plants that are going to double the renewable energy we can generate in this country. These are jobs building the future.

For example, I want share with you one new development, made possible by the clean energy incentives we have launched. This month, in the Mojave Desert, a company called BrightSource plans to break ground on a revolutionary new type of solar power plant. It’s going to put about a thousand people to work building a state-of-the-art facility. And when it’s complete, it will turn sunlight into the energy that will power up to 140,000 homes – the largest such plant in the world. Not in China. Not in India. But in California.

With projects like this one, and others across this country, we are staking our claim to continued leadership in the new global economy. And we’re putting Americans to work producing clean, home-grown American energy that will help lower our reliance on foreign oil and protect our planet for future generations.



Now there are some in Washington who want to shut them down. In fact, in the Pledge they recently released, the Republican leadership is promising to scrap all the incentives for clean energy projects, including those currently underway – even with all the jobs and potential that they hold.

This doesn't make sense for our economy. It doesn't make sense for Americans who are looking for jobs. And it doesn't make sense for our future. To go backwards and scrap these plans means handing the competitive edge to China and other nations. It means that we'll grow even more dependent on foreign oil. And, at a time of economic hardship, it means forgoing jobs we desperately need. In fact, shutting down just this one project would cost about a thousand jobs.

That's what's at stake in this debate. We can go back to the failed energy policies that profited the oil companies but weakened our country. We can go back to the days when promising industries got set up overseas. Or we can go after new jobs in growing industries. And we can spur innovation and help make our economy more competitive. We know the choice that's right for America. We need to do what we've always done – put our ingenuity and can-do spirit to work to fight for a brighter future.

Thanks,

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### Unsubscribe

The White House · 1600 Pennsylvania Avenue, NW · Washington DC 20500 · 202-456-1111

<<

Fact\_sheet\_weekly\_address\_100210.pdf (36.2KB)  
ATT59090.htm (0.2KB)

[36.4KB]

>>

**From:** McCrea, Jim [REDACTED]@Hq.Doe.Gov>  
**Sent:** Tuesday, October 5, 2010 7:26 PM (GMT)  
**To:** [REDACTED]  
**Subject:** FW: Info Needed

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From: [REDACTED]  
Sent: Tuesday, October 05, 2010 3:25:31 PM  
To: Winters, Matthew  
Cc: McCrea, Jim  
Subject: RE: Info Needed  
Importance: High  
Auto forwarded by a Rule  
Matt,

Just returned – sorry for the delay. See inputs below. Hope this is helpful.

- OMB's authority vis-à-vis- the loan programs arises out of the Federal Credit Report Act (FCRA) and the Section 1703 Program's Final Rule. OMB is directed by FCRA to "coordinate" the credit subsidy estimates required by the ACT, by "consult[ing]" with agencies that administer loan guarantee programs. The 1703 Final Rule obligates DOE, prior to reaching financial close of any loan guarantee, to ensure that OMB has "reviewed and approved" DOE's calculation of the Credit Subsidy Cost of that guarantee.
- We would like the OMB review to take place only around financial close, and to consist only of what the agency is required to do – namely, review our credit subsidy score to ensure that we calculated it properly.
- OMB handles the loan program very differently than it handles other loan guarantee programs around the government – with far greater oversight and review.
  - For ExIm, they estimate credit subsidy on a loan by loan basis and OMB's review and approval is limited to the operation of the OMB-approved credit subsidy model.
  - For OPIC, they estimate credit subsidy on a loan by loan basis and OMB's review and approval is limited to the operation of the OMB-approved credit subsidy model.
  - For the Dept. of Agriculture loan guarantee program, they estimate credit subsidy on a "portfolio basis" which covers multiple projects underwritten over the course of a fiscal year.

NOTE: Department of Transportation loan programs are handled in the same way as DOE (i.e., loan by loan with significant OMB interaction). More than anything else, the extent of OMB oversight appears tied to the age of the program and the size of the loans underwritten. That said, the level of scrutiny on DOE is far more extensive than these programs.

Brian Oakley  
Principal

Scully Capital  
[REDACTED]



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**From:** Winters, Matthew [REDACTED]@Hq.Doe.Gov]  
**Sent:** Tuesday, October 05, 2010 11:58 AM  
**To:** boakley [REDACTED]  
**Cc:** McCrea, Jim  
**Subject:** Info Needed

Brian-

Secretary Chu will be meeting with other Principals to discuss the OMB/Treasury/DOE dynamic. Jonathan and I are preparing talking points for him, which need to be completed by this afternoon. I'm told that you are the expert on how the OMB process work in other programs around the gov't. Would you be able to fill in the highlighted portions below? Thanks.

Matt

- OMB's authority vis-à-vis the loan programs arises out of the Federal Credit Report Act (FCRA) and the Section 1703 Program's Final Rule. OMB is directed by FCRA to "coordinate" the credit subsidy estimates required by the ACT, by "consult[ing]" with agencies that administer loan guarantee programs. The 1703 Final Rule obligates DOE, prior to reaching financial close of any loan guarantee, to ensure that OMB has "reviewed and approved" DOE's calculation of the Credit Subsidy Cost of that guarantee.
- We would like the OMB review to take place only around financial close, and to consist only of what the agency is required to do – namely, review our credit subsidy score to ensure that we calculated it properly.
- OMB handles the loan program very differently than it handles other loan guarantee programs around the government – with far greater oversight and review.
  - For Exim, they [describe]
  - For OPIC, they [describe]
  - For the Dept. of Agriculture loan guarantee program, they [describe]

Matthew A. Winters  
Senior Advisor, Loan Programs  
U.S. Department of Energy  
[REDACTED]

**From:** McCrea, Jim [REDACTED]  
**Sent:** Tuesday, October 5, 2010 7:19 PM (GMT)  
**To:** jimccrea@[REDACTED]  
**Subject:** FW:

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**From:** Winters, Matthew  
**Sent:** Tuesday, October 05, 2010 3:18:35 PM  
**To:** McCrea, Jim; 'boakley@[REDACTED]'  
**Auto forwarded by a Rule**

Gentleman-

I need your help filling in the highlighted info in the next 30 minutes if possible. Thank you.

Matt

At issue is the role that OMB and Treasury (not to mention other agencies like NEC and the Office of Energy and Climate Change Policy) should play in the loan guarantee review process. The role they are currently playing is far in excess of what is required, or envisioned, by the relevant statutes and rules governing our programs.

Title XVII of the EPAct of 2005 authorizes the Secretary of Energy "to make guarantees . . . for projects on such terms and conditions as the Secretary determines, after consultation with the Secretary of the Treasury," (Sec. 1702(a)). By this language, it is clear that DOE has principal and ultimate authority for determining the terms and conditions for loan guarantees issued under this program. The statutory obligation to consult with Treasury is reflected in the Sec. 609.7 of the 1703 Program's Final Rule, which states: "Concurrent with its review process, DOE will consult with the Secretary of the Treasury regarding the terms and conditions of the potential loan guarantee." Thus, by both statute and rule, Treasury's role is a purely consultative one. They have no authority to dictate the terms of loan guarantees; nor is there any requirement that they approve the terms before the guarantee may be validly issued.

OMB's authority vis-à-vis the DOE loan programs, is not found in the statute creating the Loan Programs. Rather, it is derived from Section 503(a) of the Federal Credit Reform Act (FCRA), which provides: "For the Executive Branch, the Director [of OMB] shall be responsible for coordinating the estimates required by this title. The Director [of OMB] shall consult with the agencies that administer direct loan or loan guarantee programs." It should be noted that Section 503(b) provides that the OMB director "may" delegate the authority to make estimates, based on written guidelines, regulations, or criteria consistent with FCRA.

The specific role that OMB is to play in the DOE loan guarantee approval process is delineated in Section 609.9 of the 1703 program's Final Rule, which obligates DOE, prior to the closing of any loan guarantee, to "ensure that . . . OMB has reviewed and approved DOE's calculation of the credit subsidy cost of the loan guarantee." Note, again, that OMB has no formal authority, either by statute or rule, to dictate or approve the terms and conditions of any loan guarantees. Its authority is to approve DOE's calculation of credit subsidy cost prior to closing – but not necessarily prior to the issuance of a conditional commitment, as has been our practice to date.

Thus, it is clear that, while Treasury and OMB each have a role to play in the loan guarantee process, these roles are circumscribed. They certainly are not intended to detract from DOE's programmatic authority, or impede the speed with which guarantees can be processed.

To date, however, both OMB and Treasury have inserted themselves into the process to a much greater degree. OMB, though it is not required to opine on the credit subsidy score until closing, essentially re-underwrites each transaction at the conditional commitment stage. For example, on the Abengoa transaction, OMB sent I.G.P 88 separate questions as part of their pre-conditional commitment review (see Ex. 1 attached). And [another example] Even if OMB did have a role at the conditional commitment stage, in terms of reviewing the credit subsidy estimate, this sort of work is unnecessary and not contemplated by the statute or rule at all.


It should also be noted that there are numerous other loan guarantee programs scattered throughout the federal government, including those run by the Export Import Bank, OPIC, and the Department of Agriculture. In none of these cases does OMB play a similar oversight role.

(Get language here on what they do from Dave Frantz and Susan Richardson. Talk to Ag about the OMB role; Cathy Zoi will have a contact.)

Treasury seems to believe that its "consultative" role calls for it to review each deal, not on its merits and creditworthiness, but from a broader policy perspective. For example, rather than determining if a transaction is in compliance with current tax law, Treasury regularly raises broader tax policy issues – and not even because they think the deal in question exhibits any characteristic that would implicate the policy issue, but because they think that future projects in the loan programs could possibly exhibit such features (It should be noted that there are no specific tax issues identified with the Shepherds Flat transaction; Treasury just wanted to hold up the deal and take the opportunity to discuss a broader policy issue.). Treasury has fought L.G.P on such common use tools as leveraged leasing, hedging and letters of credit (which have been around since the Greeks and which many companies prefer to using cash). Their concerns are often significantly out of market, and if fully incorporated into the deals could make them unviable.

It appears that Treasury has a fundamental concern about any project that is making use of the tax benefits available to renewable energy projects under current law (which, of course, Treasury, via the IRS, oversees). Yet tax attributes are a crucial driver of clean energy project finance – and many are not financially viable without them. It has been estimated that, prior to the economic crisis, tax equity regularly accounted for more than half of the capital structure of large wind projects, and up to 85% of the capital structure of solar projects. Business Week, Will Green Energy Wilt from Lack of Funds, February 3, 2009, at 1 (citing research by Hudson Clean Energy). This is why the 1603 cash grants – which Treasury administers -- have been so crucial to maintaining any level of clean energy project development over the last two years. In light of this, Treasury's policy concerns that they have recently raised seem overstated. This is particularly true in light of the fact that every one of the hundreds of projects that have received 48(c) manufacturing credits from Treasury, and most of the early I.G.P projects (where Treasury played no role at all) utilize some sort of tax structure.

Matthew A. Winters  
Senior Advisor, Loan Programs  
U.S. Department of Energy



**From:** Otness, Chris [REDACTED]  
**Sent:** Thursday, November 4, 2010 1:55 PM (GMT)  
**To:** jim McCrea [REDACTED]  
**Subject:** RE: Reading through this memo...

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So the major differences would be:

1. Repayment of \$
2. Ground up construction, as opposed to expansions
3. 1603 does nothing to fill the "valley of death" given that all of those projects are financed privately

?

Chris Otness  
Loan Programs  
U.S. Department of Energy  
Contractor  
[REDACTED]

-----Original Message-----

From: jim McCrea [REDACTED]  
Sent: Wednesday, November 03, 2010 10:53 PM  
To: Otness, Chris  
Subject: RE: Reading through this memo...

Memo is horribly biased. The table of loans vs. grants is just appalling. Looks like they got so much more done with grants than we did with loans with so many fewer people. Well, think about this:

Our decisions are "major Federal actions" which requires the NEPA (National Environmental Policy Act) process of EAs and EIS's. Then, there is the fact that a grant is a grant. It is a one way trip of the money and the money never comes back. Our loans, by statute, have to have a "reasonable prospect of payment" which means payments in full when they are due over the life of the loan. This requires a full-fledged loan underwriting, often of innovative technologies. This is a major and full blown credit analysis which we conduct on transactions which often could not get financed at all in the private sector or which would have to be much more fully developed before they could get private sector financing. We are underwriting transactions when they are not far enough developed to get the time of day from a bank. We are taking construction risk which is the most difficult lending there is and the area where many banks have failed. The 1603 grants are made once project have completed construction and go "in service" so the construction risk is behind them. In short, giving money away is really easy. The hard part is setting it up so you get it back!

Their argument is that 1603 is more effective. In fact, there is a role for both but you do not get a 1603 until you build the plant and for that, you need a construction loan. We do the hard and heavy lifting! The comparison of 1705 and 1603 was a comparison of apples and oranges framed to make it look like 1705 and we were inefficient. Look at the staffing comparison. To do grants, it take merely two people. One to open the window and the other to empty the bushel basket of money out the open window.

I felt that the memo was extremely biased to sell a preconceived notion rather than to present a fair view of the alternatives to the decision maker. I say that in spite of my involvement with the program. If I had nothing to do with the program but had read it from my prior positions doing energy project finance, I would say exactly the same thing.

On top of it, Treasury and NEC is beating the crap out of us on the total level of government subsidy (1603, accelerated depreciation, renewable portfolio standards, 48C, value of the loan guarantee, etc.) in spite of the fact that this is all allowed by Statute and Congress, in other cases but not in this case, legislated against "double dipping." None of those issues has any impact on the proper lending decision and we are not required by the statutes under which we operate to do the analysis Treasury is asking for. They are also killing us on the level of return earned by sponsors and on and on. No analysis of this type at all is applied to the 1603 program. You could have a project so rich that it included a 40% after tax return. If you meet the qualifications for the 1603, you get the money and your return skyrockets even further.

I also had huge issues with the Shepherd's Flat analysis which was heavily biased and unfairly presented.

All in all, I certainly would have been embarrassed to have my name attached to a memo like that as it is way below my professional standards.

Jim

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James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: Otness, Chris [REDACTED]  
Sent: Wednesday, November 03, 2010 10:10 PM  
To: jimccrea@ [REDACTED]  
Subject: Reading through this memo...

...and the WH makes a compelling argument against loans and for grants.

Are the difference(s) in projects funded by 1705 vs. 1603 as simple as our projects are more financially secure, given the additional due diligence we conduct?

I looked at some of the largest recipients of 1603 grants. It seems as if most of them are expansions of already existing projects. Is that the case?

Trying to wrap my head around the internal debate.

Chris Otness  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

**From:** James C McCrea [REDACTED]  
**Sent:** Thursday, October 14, 2010 11:19 AM (GMT)  
**To:** 'Silver, Jonathan' [REDACTED]  
**Subject:** RE: Template for One Page Summary of Project Economics and Tax Issues for LGP Consultations

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It is simply that calculating returns is something that finance types do so we can actually do it with the staff we have. The big issue is that there are no standard ways of doing this, it requires many simplifying assumptions, it is time consuming, it provides an answer that above all else, you know is wrong and that can only be interpreted if you really understand (can underwrite) the transaction so you can evaluate the return against a true understanding of the risk as a raw return is meaningless.

Jim

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James C. McCrea  
**JAMES McCREA & ASSOCIATES LLC**

[REDACTED]

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**From:** Silver, Jonathan [REDACTED]  
**Sent:** Thursday, October 14, 2010 7:13 AM  
**To:** 'jimmccrea@' [REDACTED]  
**Subject:** Re: Template for One Page Summary of Project Economics and Tax Issues for LGP Consultations

Get your point on taxes, but its not all finance. There is a tax component.  
Let's see how rod responds.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

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**From:** James C McCrea [REDACTED]  
**To:** Silver, Jonathan  
**Sent:** Thu Oct 14 07:04:17 2010  
**Subject:** RE: Template for One Page Summary of Project Economics and Tax Issues for LGP Consultations

Like everything you said but would down play the need for tax professionals. Calculating all of this stuff is finance but there are so many ways to do it that it is not easy. On top of it, we do not really have the data to make anything but the crudest calculations based on major assumptions and even then, to interpret it requires the knowledge to underwrite the deal which Treasury does not have. The one thing that we know about any such analysis is that it will be wrong.

By the way, I have held back on 1 response to OMB and 2 to Treasury on their Baldwin questions because those questions go to these very issues. My intent was to discuss the questions and how to respond with you because any response would push us down a very slippery slope. I think that a flat out refusal and telling them to do it themselves is the best response as long as, if they kill a deal, we do not have to protect them from the consequences.



Jim

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James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

**From:** Silver, Jonathan [REDACTED]  
**Sent:** Thursday, October 14, 2010 6:56 AM  
**To:** 'jimmccrea@' [REDACTED]  
**Subject:** Fw: Template for One Page Summary of Project Economics and Tax Issues for LGP Consultations

Fyi  
Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

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**From:** Silver, Jonathan  
**To:** O'Connor, Rod; Hurlbut, Brandon  
**Sent:** Thu Oct 14 06:54:37 2010  
**Subject:** Fw: Template for One Page Summary of Project Economics and Tax Issues for LGP Consultations

I think an email I sent you last night got garbled with input from several responses my team sent me on this matter.

Let me try to explain Jim's comment below that "this is a very big deal".

First, everyone is working flat out to get the packages ready for delivery by Friday afternoon. (Even then, the packages will only be useful at the policy level. I repeat that most of these deals ARE NOT DONE. We are putting the packages together to assist other agencies in a policy level review. My guys are deeply concerned about the whole approach.) There is simply no way to get this done...even if we could.

And we can't. The work they are asking us to do is not really relevant to the work that we do do. We simply don't do tax policy and we don't have the folks to do it. Some of the analyzes they are asking for are not required for us to do our work or do it well.

Our collective best guess is that it would take several additional weeks of work to prepare the information you has requested. My own best guess is that we can't do it at all: its a different experience set. I am opposed to doing it for treasury, but, if required to, will first need to add 5-7 tax analysts and tax lawyers. That will take several months.

If we staff up, you and omb will need to as well, since the review of this new work will also be time consuming (did I mention that none of this work is necessary?)

Essentially, treasury is asking for a whole return, tax benefit, subsidy, tax issue analysis. Project finance, which is what we do, does not attempt to answer these questions. (Our folks from opic and exim tell me they have never seen any deal done by either of those institutions asked for this and have no idea how they would be able to comply.)

Some of what they have asked for is just wrong, like their approach to accelerated depreciation. Some of it is unclear; there are many ways, for example, to calculate return on equity and "skin in the game" (witness our ongoing struggle - never resolved- over how much equity was in Shepherd's Flat). Some of it makes no sense: how do you identify a migrant to something (like a structure) that is legal and used commonly? Etc.

My intent is to tell treasury that we cannot do this for them (not that we cannot do it by Friday, but that we are simply not able to do it at all). However, since we now send them every scrap of information we collect, they certainly have the data

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(we suppose) to do it themselves.

My only point inside DOE is that, if ust then does an analysis which causes them to tell us we cannot do a deal (which you know they have no technical right to do), we should be able to tell the applicant that treasury killed the deal.

Bottom line: unless I hear differently from you, I intend to send mary miller a note this morning explaining that we don't and can't do this; reminding her that her staff has all the same material we do; and suggesting that they tackle these issues directly.

I cannot in good conscience ask my folks to do this. The organization will fold.

J

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

---

**From:** James C McCrea [REDACTED]  
**To:** Silver, Jonathan; Frantz, David  
**Sent:** Wed Oct 13 21:41:43 2010  
**Subject:** FW: Template for One Page Summary of Project Economics and Tax Issues for LGP Consultations

FYI. This is a very big deal.

Jim

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James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC  
[REDACTED]

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**From:** McCrea, Jim [REDACTED]  
**Sent:** Wednesday, October 13, 2010 9:34 PM  
**To:** jimccrea@[REDACTED]  
**Subject:** FW: Template for One Page Summary of Project Economics and Tax Issues for LGP Consultations

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**From:** Judson Jaffe@[REDACTED]  
**Sent:** Wednesday, October 13, 2010 9:33:32 PM  
**To:** Frantz, David; McCrea, Jim; Fouad\_P\_Saad [REDACTED]  
Kelly\_T\_Colyar [REDACTED]; Joseph\_E\_Aldy [REDACTED]  
**Cc:** Gary Burner [REDACTED]; Paula Farrell [REDACTED]  
Ian Samuels [REDACTED]  
**Subject:** Template for One Page Summary of Project Economics and Tax Issues for LGP Consultations  
Auto forwarded by a Rule  
All,

Following up on recent discussions, I have attached a sample one-page summary of economic metrics and tax issues that we would like to see DOE provide on each proposed loan guarantee going forward. We believe a summary page such as

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this will significantly improve our understanding of project economics and tax issues, provide a common factual basis for interagency discussions of these issues, and help Treasury expedite our consultations on each transaction.

For exposition, I have used details on Shepherds Flat to fill in this sample one-pager. In future transactions, certain line items in the attached may not be relevant, and others may need to be added (e.g., if future transactions raise tax issues or receive subsidies that are not present in Shepherds Flat).

We welcome comments that any of you have on: what is presented, how it is presented, and the calculations behind these metrics. We look forward to working with DOE and OMB to quickly reach agreement on a one-pager like the attached that DOE can provide on each transaction going forward.

We understand that we may be meeting on Friday afternoon to discuss several transactions currently in DOE's pipeline. We are working with OMB to develop a limited set of generic topics (i.e., not necessarily project-specific topics) that we would like to cover for each transaction during Friday's discussion. We will forward that complete list tomorrow morning once it is complete. However, it will definitely include the various metrics included in the attached. Therefore, to ensure that we can have a productive discussion on Friday, we hope that DOE can produce these metrics for each transaction in advance of Friday's meeting.

Regards,

Jud

**From:** jim McCrea [REDACTED]  
**Sent:** Tuesday, October 19, 2010 3:26 PM (GMT)  
**To:** 'Silver, Jonathan' [REDACTED]  
**Subject:** RE: Thanks for the productive energy loan guarantee meeting yesterday

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I am fine with it. The other example I find useful is that 11% may be a hugely fat return and 23% may be a really skinny return. You have to be able to completely underwrite a transaction and properly evaluate all risks to know which is which.

Jim

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James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC  
[REDACTED]

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**From:** Silver, Jonathan [REDACTED]  
**Sent:** Tuesday, October 19, 2010 9:33 AM  
**To:** 'jimmccrea@' [REDACTED]  
**Subject:** Fw: Thanks for the productive energy loan guarantee meeting yesterday

The email I plan to send to rod. Thoughts?

So, to my mind, we're right back where we started.

This sounds benign, but its not. We HAVE a set of metrics we use and we've shared them with the world already. They are in our policies and procedures manual (and were basically stolen from opic's approach). They define basic good project finance guidelines, but they say nothing at all, obviously, about "appropriate" rates of return, "appropriate" all in subsidies, etc.

The debate over the new metrics and the way to calculate them will be endless (there are at least a half a dozen ways just to look at ROE and IRR, etc). We still don't agree on how to account for 1603...although we've now been told how to do it.

I'm afraid we will be told a number of things that will simply make it even harder to get deals done. The discussion at the meeting yesterday on "profit" was typical. It was misguided and naive. Let me give you an example. We may all have houses to sell, but that doesn't mean they are worth the same. The prices differ because of location, size, number of rooms, etc. So, there is little value in comparing "returns" (whatever that means). One wind farm is on a mountain top using innovative technology. The other is built on a plain using off the shelf stuff. Are you surprised that its more expensive to build one than the other? Similarly, if one project uses more equity but the other distributes the risk to the debt holders and both have similar return characteristics, which is more profitable? Etc.

It goes without saying that there is no mention of pre announcements.

The "good" news is that I believe we are back where we started. We will keep grinding away on deals and turning out 1-2 a month, while we spend months debating the issues in aidy's note. (Aidy will be gone by the time these discussions end.)

One thought. To make it "worth" it to fight this out, can we get agreement upfront that, if we (ever) agree on a set of metrics, that means there are no more briefings and no questions on the deals?

Jonathan Silver  
Executive Director

JM\_00065063

**From:** Aldy, Joseph E. <[REDACTED]@who.eop.gov>  
**To:** Silver, Jonathan; OConnor, Rod; Hurlbut, Brandon; [REDACTED]@do.treas.gov <[REDACTED]@do.treas.gov>; Ian Samuels <[REDACTED]@do.treas.gov>; Mas, Alex <[REDACTED]@omb.eop.gov>; Mertens, Richard A. <[REDACTED]@omb.eop.gov>; Carroll, Kevin; Saad, Fouad P. <[REDACTED]@omb.eop.gov>; Colyar, Kelly T. <[REDACTED]@omb.eop.gov>  
**Cc:** Ericsson, Sally C. <[REDACTED]@omb.eop.gov>; Zichal, Heather; Farrell, Diana <[REDACTED]@who.eop.gov>; Utech, Dan G. <[REDACTED]@who.eop.gov>; Kumar, Aditya <[REDACTED]@ovp.eop.gov>; Browner, Carol M. <[REDACTED]@who.eop.gov>  
**Sent:** Tue Oct 19 08:13:51 2010  
**Subject:** Thanks for the productive energy loan guarantee meeting yesterday

We would like to thank everyone for a productive meeting on the 1705 loan guarantee program yesterday. We found it useful to understand some of the details of the applications in this batch, and to surface some of the potential policy issues. In addition, we identified several actions for next steps:

- (1) TVA offset: I have already followed up with OMB, and they are working through to better understand this issue.
- (2) Pricing debt: Treasury raised questions about the variation among and levels of pricing on government-guaranteed debt in several FIPP applications. I would appreciate it if Treasury and DOE staff could meet this week to work on this issue. For those of us who are not that familiar with the pricing of USG-guaranteed debt, it would be helpful if we could understand this in the context of potentially relevant analogs. E.g., what is the level and variation in pricing of debt issued by the Federal Financing Bank for non-FIPP loan guarantees? How does this compare with other USG loan guarantee programs, e.g., Ex-Im or USDA?
- (3) Summary measures: To facilitate an expedited review of applications, we need to reach an agreement on a set of summary measures of each deal. This could include at least some of the various financial and economic metrics identified in the draft Treasury one-pager from last week. It should also address typical/common questions submitted by OMB and Treasury to DOE on 1705 deals. I would appreciate it if Treasury, OMB, and DOE staff could meet this week to (1) identify metrics and summary characteristics that should be generated for each project; (2) agree on methodology for these metrics; and (3) decide how to allocate labor among the interagency to do this work. This exercise should focus on the key policy issues raised and discussed by principals in their meeting two weeks ago. I have already followed up with OMB and Treasury to ask them to compile a set of questions that they frequently ask of LG applications. Ideally, we would generate a 1-2 page summary template for each deal that summarizes key metrics and includes language to put metrics in context (e.g., if a summary statistic is not sufficient to characterize fully a given element of a deal) and develop the process (including assigning tasks to various staff across the interagency) to generate these summaries.

Unfortunately, I will not be able to attend meetings on (2) and (3) this week since I am departing for Brussels tonight. We need to keep the process going, so let me suggest the following. On (2), I would like Jud Jaffe of Treasury to follow up with his Treasury colleagues and DOE to schedule a meeting this week. On (3), I would like Alex Mas of OMB to follow up with his OMB colleagues, Treasury, and DOE to schedule a meeting this week. Please let me know once these meetings are scheduled, and then I will schedule follow-up calls with Jud, Alex, and Rod for later this week to debrief and plan for next steps for the following week. I can be reached on my BB at 202-503-5742 when on travel. Thanks,

Joe

Joseph E. Aldy  
Special Assistant to the President for Energy and Environment  
National Economic Council/Office of Energy and Climate Change

The White House  
Washington, DC 20502



**From:** Silver, Jonathan [REDACTED]  
**Sent:** Friday, June 25, 2010 7:12 PM (GMT)  
**To:** Richardson, Susan [REDACTED]; 'James C McCrea'  
**Cc:** Frantz, David [REDACTED]  
**Subject:** RE: Abengoa, Abound, First Wind and Beacon Updates

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If we can't close, we can't close. That said, we shouldn't not close because we can't resolve an issue with the applicant or because people have other plans, etc. We should only not close if there are substantive items that will weaken our investment/position in the deal.

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585  
[REDACTED]

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**From:** Richardson, Susan  
**Sent:** Friday, June 25, 2010 3:05 PM  
**To:** Silver, Jonathan; 'James C McCrea'  
**Cc:** Frantz, David  
**Subject:** RE: Abengoa, Abound, First Wind and Beacon Updates

J, This is creating some havoc with Beacon docs. I am advising our outside counsel not to start changing the docs to assume a closing next week, as I think it will hurt our position with the borrower, and just create a lot of wasted motion. but we continue to push to complete asap.

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**From:** Silver, Jonathan  
**Sent:** Friday, June 25, 2010 9:35 AM  
**To:** Richardson, Susan; 'James C McCrea'  
**Cc:** Frantz, David  
**Subject:** RE: Abengoa, Abound, First Wind and Beacon Updates

Sounds like we can't do the closing deals but can announce the conditional commitments. Let's keep pushing on all four, but I will set the stage upstairs.

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585  
[REDACTED]

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**From:** Richardson, Susan  
**Sent:** Friday, June 25, 2010 9:29 AM  
**To:** 'James C McCrea'; Silver, Jonathan

Cc: Frantz, David

Subject: RE: Abengoa, Abound, First Wind and Beacon Updates

Totally agree w/ Jim's assessment, esp re Beacon. We are dealing w/ an unsophisticated borrower, that is trying to save money by minimizing role of outside counsel. This is making it difficult to close off issues. I would hate to reward this behavior with a ceremonial closing and significant list of deferred CPs. Pressure for further waivers and funding would mount.

Also re FFB, this will be our first FFB closing w/ an internal DOE opinion to FFB re DOE guarantee. (In Solyndra, outside counsel gave the opinion.) We have ATVM precedent, and a form that "we" are happy w/ internally (Eric Fygi will give the opinion); but we have had no feedback from FFB. I would hate to be in a position where they can jam us with opinion demands.

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**From:** James C McCreary [REDACTED]  
**Sent:** Friday, June 25, 2010 1:09 AM  
**To:** Silver, Jonathan  
**Cc:** Frantz, David; Richardson, Susan  
**Subject:** Abengoa, Abound, First Wind and Beacon Updates

Jonathan –

An update on the 4 projects as of this evening. DOE is moving with "the fierce urgency of now" while OMB/Treasury/FFB are moving with "the fierce urgency of ... whenever." There has been no sign of life from OMB/FFB/Treasury and no sign that they are responding to WH intervention.

**Abengoa:**

As far as I know, we still have not received the written consultation satisfaction document from Treasury. On Weds. it was read to Dave and me and was to be forthcoming within hours. Around 4PM Thurs. Ian Samuels indicated that it would not be an issue for a Tues AM CRB. I checked to see if the final credit subsidy cost files had been sent to OMB and I could not confirm that they had been although they were indeed run. I sent them over to Fouad with a request that they sign off in advance of CRB. I do not think there will be an issue as we are running it at the OMB suggested risk and recovery levels of BB/45%/45%.

ASSESSMENT: Everything should be in place for CRB approval and prompt announcement.

**Abound:**

In spite of our best efforts, we still do not have a date or time for a presentation to FFB/Treasury. The best we have is proposal from Ian Samuels that the briefing be scheduled at a time and a place convenient for Paula Farrell and Gary Burner and opened with a discussion of policy issues that we have been discussing (e-mail forwarded so you can see the policy discussion request. Once the briefing has occurred, the following steps ensue:

- FFB/Treasury provides their questions to DOE
- DOE prepares responses
- Treasury confirms that consultation is complete

We do not have Abound questions from OMB but, based on Fouad's comments on Thurs., they should be forthcoming on Fri. That will set in motion the following actions:

- DOE will prepare responses
- OMB will review DOE responses, decide risk and recovery ratings and communicate its assessment to DOE
- DOE will then have to run the cash flows at the OMB risk and recovery ratings and forward those to OMB for approval
- OMB will communicate its approval to DOE

ASSESSMENT: The lack of a scheduled Treasury/FFB briefing time and OMB questions and the necessary steps that must be accomplished before Gate 2 credit subsidy cost approval and completion of Treasury



consultation make the probability that these steps can be completed before a Tuesday morning CRB remote even with WH intervention.

**First Wind:**

There are significant outstanding issues, including issues that have surfaced today. The issues would ordinarily preclude closing. The applicant submitted a revised new model on Weds, and the model does not match the terms of the transaction. Further, project cost numbers are moving around making it extremely difficult to complete the necessary calculations. The construction schedule was extended two months leaving a significantly reduced cushion before liquidated damages must be paid to Hawaiian Electric. Finally, it was learned this week that the building permit has not been issued and there is not a clear timetable for its issuance. If this transaction closes next week it will only do so with the waiver of significant conditions precedent which would not normally be waived.

**ASSESSMENT:** Under ordinary circumstances and even with significantly accelerated efforts, this transaction would likely be closer to two weeks from closing. The outstanding issues are beyond what would normally be addressed by conditions subsequent which must be satisfied prior to release of funds.

**Beacon:**

Discussion of the transaction is expected to occur with OMB on Tuesday. There is a significant IP licensing issue that will require actions from a Japanese firm. The normal discussions with FFB regarding the transaction are well short of completion.

**ASSESSMENT:** Under ordinary circumstances and even with significantly accelerated efforts, this transaction would likely be several weeks from closing at best. The outstanding issues are beyond what would normally be addressed by conditions subsequent which must be satisfied prior to release of funds.

**First Wind/Beacon FFB Spread:**

The complete inability to obtain the FFB spread in spite of repeated efforts and numerous e-mails and phone calls is extremely disconcerting. It is difficult to see the failure to provide the spreads as anything other than deliberate, the reasons for which are not apparent.

All in all, I do not see how we can deliver, even with significant WH support, on anything other than Abengoa. The sooner we can remove First Wind and Beacon from the accelerated process, the better.

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

**From:** James C McCrea [REDACTED]  
**Sent:** Wednesday, April 14, 2010 9:03 PM (GMT)  
**To:** 'Sandra Claghorn' [REDACTED]; 'Stephen Shulman'  
**Subject:** RE: Great Basin project

---

Steve --

I will be in DC from Tues to Fri next week.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Sandra Claghorn [REDACTED]  
Sent: Wednesday, April 14, 2010 4:58 PM  
To: Stephen Shulman, Jim C McCrea  
Subject: Re: Great Basin project

Steve-

Happy to talk next week. My schedule is pretty open right now. I have a 10am appt on Mon and a 3:00pm on Friday.

My phone number is below.

Talk soon-  
Sandy

Sent from my Verizon Wireless BlackBerry

-----Original Message-----

From: Stephen Shulman [REDACTED]  
Date: Wed, 14 Apr 2010 19:29:45  
To: <jimmccrea@[REDACTED]>  
Cc: <sandra.claghorn@[REDACTED]>  
Subject: Re: Great Basin project

It is SWIP (goes by a variety of names, including One Nevada these days). We're not ready to do any formal briefing yet, but I thought it would be helpful to come by to broadly discuss the project and what we are considering. Maybe we can do that early next week. Sandy -- can you give me your contact info? Thanks.

Steve Shulman  
[REDACTED]

On Wed, Apr 14, 2010 at 3:21 PM, James C McCrea [REDACTED] > wrote:

Steve -- I presume that you mean SWIP? If so, Sandra Claghorn will be lead on it and I have not yet figured out who will be the second. Sandy has experience from her Fitch days with evaluating utilities as she was heavily involved in rating the securitization of utility stranded costs in the mid 90's. I am not sure that I have yet mentioned to her that she would be lead on SWIP as we have not

chatted in a few days so this e-mail will alert her to that. When you do the initial briefing, I would like to participate along with Sandy and hopefully, we will have identified the second Credit person as well and they will be able to participate as well.

Sandy -- This is a very high profile transaction that has, within the past 2 weeks, become the subject of a ton of high level focus. It is a priority for Jonathan. Steve got dropped into it to lead the charge. I will want to add a second person from Credit on it as well and would be interested in your thoughts. Holler when you want to chat about this.

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

From: Stephen Shulman [REDACTED]  
Sent: Wednesday, April 14, 2010 3:10 PM  
To: James McCrea  
Subject: Great Basin project

Jim: Have you assigned someone from your group to work on the Great Basin (LS Power) transmission project? I want to brief someone soon as we are beginning to work on deal structure and I want to make sure we are talking the same language at DOE. To the extent that your people have some experience with regulated utility ratemaking and projects, that might be helpful in understanding the risk profile. Thanks, Steve

**From:** James C McCrea [REDACTED]  
**Sent:** Tuesday, July 27, 2010 5:03 PM (GMT)  
**To:** 'Kittell, Matthew' [REDACTED]; 'rogercdaniel@' [REDACTED]  
**Subject:** RE: 800MW Wind Farm

---

Love it that they used a leveraged lease.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

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**From:** McCrea, Jim [REDACTED]  
**Sent:** Tuesday, July 27, 2010 12:36 PM  
**To:** jimccrea@[REDACTED]  
**Subject:** FW: 800MW Wind Farm

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From: Kittell, Matthew  
Sent: Tuesday, July 27, 2010 12:35:43 PM  
To: McCrea, Jim  
Subject: FW: 800MW Wind Farm  
Auto forwarded by a Rule

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**From:** Kittell, Matthew  
**Sent:** Tuesday, July 27, 2010 12:22 PM  
**To:** 'Roger McDaniel'  
**Subject:** FW: 800MW Wind Farm

Roger,

Below are email exchanges that occurred this morning. I've attached a draft crosswalk between the two transactions.

I'm happy to discuss the crosswalk with you if needed.

Matt

Matt Kittell  
Department of Energy  
Loan Guarantee Program

[REDACTED]

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**From:** Silver, Jonathan  
**Sent:** Tuesday, July 27, 2010 10:02 AM  
**To:** Kittell, Matthew; Hurlbut, Brandon  
**Subject:** RE: 800MW Wind Farm

From the Alta website. At a minimum, the difference would seem to be that Alta is being done as several discrete projects. When

you add in that Shepherds flat has more turbines overall, it would seem clear that SF is the biggest.

The Alta Wind energy Center (AWEC) is located in the heart of one of the most proven wind resources in the United States - the Tehachapi-Mojave Wind Resource Area. Terra-Gen is developing the AWEC, California's largest wind energy project, adjacent to existing wind projects between the towns of Mojave and Tehachapi. Due to a welcoming community and the participation of a diverse group of landowners (private and public, local and non-local, large and small), the AWEC has a strong foundation for success.

The AWEC will be comprised of several distinct projects and will utilize the same wind resource that has powered thousands of turbines for the past two decades

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  


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**From:** Kittell, Matthew  
**Sent:** Tuesday, July 27, 2010 10:01 AM  
**To:** Silver, Jonathan; Hurlbut, Brandon  
**Subject:** RE: 800MW Wind Farm

Shepherds Flat will have 338 turbines (18 more than Alta) and a capacity of 845MW (45MW more than Alta), so it is larger. But in any case, I will work with our project engineer to do a crosswalk between Shepherds Flat and Alta Wind. We get you something in an hour or two.


Matt

---

**From:** Silver, Jonathan  
**Sent:** Tuesday, July 27, 2010 10:00 AM  
**To:** Hurlbut, Brandon; Kittell, Matthew  
**Subject:** RE: 800MW Wind Farm

Not that it matters, but this is from Wikipedia:

**Shepherds Flat Wind Farm** is a planned wind farm near Arlington, Oregon, United States. Installation of the wind turbines is scheduled to begin in 2010 and the project is expected to be fully built in 2012.<sup>[1]</sup> Built by Caithness Energy, it will supply electricity to Southern California Edison. The wind farm is projected to be the largest land-based wind farm in the world when it is completed.<sup>[2]</sup>

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585  


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**From:** Hurlbut, Brandon  
**Sent:** Tuesday, July 27, 2010 9:56 AM

**To:** Kittell, Matthew  
**Cc:** Silver, Jonathan  
**Subject:** RE: 800MW Wind Farm

I saw this – I am confused. We need to figure out how to properly characterize Shepherd's Flat as WH is considering whether to have top principal involved. Is it the largest in the world? (Matt, you said yesterday it is) and how does SF compare to Alta – it seems Alta is ultimately larger but done in phases and not one site.

---

**From:** Kittell, Matthew  
**Sent:** Tuesday, July 27, 2010 9:49 AM  
**To:** Hurlbut, Brandon  
**Subject:** 800MW Wind Farm

Brandon,

FYI - this was in the news today. This project will consist of up to 320 wind turbine generators capable of generating up to 800 megawatts (MW), so although they may be "largest" in the U.S., Shepherds Flat will be larger.

**Multibillion-Dollar Wind Project To Break Ground.** The [Los Angeles Times](#) (7/27, Hsu, 776K) reports the multibillion-dollar Alta Wind Energy Center, which is "being called the largest wind power project in the country, with plans for thousands of acres of towering turbines in the Mojave Desert foothills generating electricity for 600,000 homes in Southern California," is "finally kicking into gear." On Tuesday, after "a tortured history, stretching across nearly a decade of ownership changes, opposition from local residents and transmission infrastructure delays," the project "s officially breaking ground in the Tehachapi Pass, a burgeoning hot spot for wind energy about 75 miles north of Los Angeles." According to analysts, "when completed, Alta could produce three times as much energy as the country's largest existing wind farm." It will probably also "be a wind power bellwether, affecting the way renewable energy deals are financed, the development of new electricity storage systems and how governments regulate the industry."

Matt

**From:** James C McCrea [REDACTED]  
**Sent:** Thursday, September 9, 2010 11:32 AM (GMT)  
**To:** 'Schulz,Douglas' [REDACTED]; 'Ku,Ruth' [REDACTED];  
'Roger McDaniel' [REDACTED]; 'Karine Khatcherian'  
[REDACTED]; 'boakley@' [REDACTED]; 'Anthony  
Curcio' [REDACTED]; 'Paul Amoer' [REDACTED]  
**Subject:** Shepherds Flat -- Draft Responses to OMB Questions

---

As I discussed with Doug yesterday, I am looking for draft responses to the OMB questions this morning as it is my intention to get a response package to OMB mid day today. If you will not be getting responses to me by 11AM, please advise so that we can discuss.

Also, as we go through the Shepherds Flat process with both OMB and Treasury, we will get a lot more questions as you know. We are going to have to be very fast in turning around responses and sending them to both. To do otherwise, will leave us firmly on the political path and give the agencies an opportunity to blame us when they are pressures to make decisions. As you all know, the pressures to make decisions on this transaction are high so speed is of the essence. My goal for question turnaround is no more than 2 days to complete all questions and hopefully a single day. We have worked at that pace on a number of other complex transactions so I know that the pace is achievable.

Thanks in advance for your help.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

**From:** jim McCrea <[REDACTED]>  
**Sent:** Monday, December 6, 2010 11:45 PM (GMT)  
**To:** 'Julie Stewart' <[REDACTED]>  
**Cc:** 'Renee Sass' <[REDACTED]>  
**Subject:** RE: FW: STP 3&4 Update for 7th Floor  
**Attach:** NRG - Dec 6 Mtg 1(RJS and JAS and JCM).docx

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Nice work. My comments are embedded.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

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**From:** Julie Stewart <[REDACTED]>  
**Sent:** Monday, December 06, 2010 6:19 PM  
**To:** jim McCrea  
**Cc:** Renee Sass  
**Subject:** Re: FW: STP 3&4 Update for 7th Floor

Jim -

Attached are Renee's and my comments on the NRG - JS 12/6 Memo. Please feel free to edit and we are available to discuss.

Thanks-  
Julie

Julie Stewart | Contractor - Loan Guarantee Program Office  
United States Department of Energy

[REDACTED]

On 12/6/2010 11:59 AM, jim McCrea wrote:  
Please review and then we should jump on a call on my dial in and chat about this.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

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**From:** Hulihan, Terrence [mailto:[REDACTED]@hq.doe.gov]  
**Sent:** Monday, December 06, 2010 11:46 AM  
**To:** 'jim McCrea'; Winters, Matthew



**Cc:** Frantz, David; Hulihan, Terrence; 'Paul Barbian'

**Subject:** RE: STP 3&4 Update for 7th Floor

All-

David Crane/CEO of NRG and Steve Winn/CEO of NINA are coming in to meet with Jonathan today at 2 pm. Attached is a briefing memo for Jonathan. FYI.

Terry

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**From:** Jim McCrea [REDACTED]

**Sent:** Monday, December 06, 2010 11:34 AM

**To:** Winters, Matthew

**Cc:** Hulihan, Terrence; Frantz, David

**Subject:** RE: STP 3&4 Update for 7th Floor

In addition to STP 3&4, NRG is in BrightSource which is about to take off for closing as everyone is working on being pencils down by 12/20, Agua Caliente, and California Valley Solar Ranch.

Jim

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James C. McCrea

JAMES McCREA & ASSOCIATES LLC

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**From:** McCrea, Jim [REDACTED]@Hg.Doc.Gov]

**Sent:** Monday, December 06, 2010 11:28 AM

**To:** [REDACTED]

**Subject:** FW: STP 3&4 Update for 7th Floor

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**From:** Winters, Matthew

**Sent:** Monday, December 06, 2010 11:28:22 AM

**To:** McCrea, Jim; Hulihan, Terrence

**Cc:** Frantz, David

**Subject:** RE: STP 3&4 Update for 7th Floor

**Auto forwarded by a Rule**

Dave-

Could you send me a list of the other active projects that NRG is involved in? Thanks.

---

**From:** McCrea, Jim

**Sent:** Monday, December 06, 2010 11:16 AM

**To:** McCrea, Jim; Winters, Matthew; Hulihan, Terrence

**Cc:** Frantz, David

**Subject:** RE: STP 3&4 Update for 7th Floor


One other thing to note is that NRG is on a number of the transactions that will be adversely affected if resources have to be

JM\_00059896

diverted to STP 3&4.

Jim

Jim McCrea  
Contractor & Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy



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**From:** McCrea, Jim  
**Sent:** Monday, December 06, 2010 11:12 AM  
**To:** Winters, Matthew; Hulihan, Terrence  
**Cc:** Frantz, David  
**Subject:** RE: STP 3&4 Update for 7th Floor

Matt -

I have no idea what is included in Terry's memo as Credit (myself, Renee and Julie) have not seen it.

We submitted for the full blown approval process. That stopped cold when Terry said that the review would be done in two weeks. Once that was said, everyone (OMB, Credit Committee) stopped work to wait for a resubmittal. Legal and technical advisors have reviewed the new contract and that has lead to continued negotiations. The dramatic EPC changes lead to significant term sheet and structural changes which the Sponsor has not found acceptable. I think that the discussion needs to reflect that the transaction cannot merely move forward based on a review but rather, it requires completion of the significant on-going negotiations which will have to close out some rather significant and stubborn issues.

That said, we need to make sure that no one commits to move STP 3&4 forward in the near future or it will knock quite a number of high priority deals off track. Dave Frantz and I have talked about the adverse consequences of moving STP 3&4 but Terry, Paul, Renee, and Julie have major commitments to the high priority transactions and an extended credit subsidy discussion will create major issues for Brian's and Anthony's groups. If we move forward a significant number of high priority deals will slow materially to make way for STP 3&4.

A few edits are shown below. Red is inserts. Shrunken words are deletions.

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**From:** Winters, Matthew  
**Sent:** Monday, December 06, 2010 10:52 AM  
**To:** Hulihan, Terrence; McCrea, Jim  
**Subject:** STP 3&4 Update for 7th Floor  
**Importance:** High

Jim/Terry-

Valerie Jarrett is meeting with the CEOs of NRG and Reliant tomorrow, and they are looking for a short background/update on the STP 3&4 project. Based on Terry's recent memo to Jonathan, and our brief conversation this morning, I've drafted the following.

Can each of you please confirm that this is accurate, and suggest any edits/additions? Thanks.


Matt

JM\_00059897

Nuclear Innovation North America LLC (an 88% subsidiary of NRG Energy Inc) has applied for a DOE loan guarantee to support the STP 3&4 project – which consists of the construction of two ABWR 1500MW reactors at an existing nuclear facility in Matagorda County, TX. The reactors are first-of-their-kind in the U.S., though there are four such reactors currently operating in Japan. The project is seeking a \$7.3B guarantee, which will cover approximately 43% of the estimated \$17.1B total project costs. It is estimated that the projects will create approximately 5,500 construction jobs and 800 permanent jobs.

In September 2010, just as DOE was about to complete had completed its pre-conditional commitment due diligence on the STP 3&4 project and had submitted it for interagency approval, NRG Energy decided to replace one of its key Engineering, Procurement, and Construction (EPC) contractors, and renegotiate the EPC contract. This contract is integral to the project. Accordingly, the project could not be formally approved until it was finalized. In an effort to speed the ultimate interagency review process, however, DOE submitted a near-final credit package to OMB and Treasury in mid-October, so that they could begin their review. This was done with the understanding that the credit package would be amended once the project's new EPC contract was finalized. DOE received NRG's renegotiated and finalized EPC contract approximately 10 days ago and is currently reviewing it. When this review is complete, an amended credit package will be transmitted for approval to OMB, Treasury, and DOE's internal credit committee. Upon their approval, the transaction will then be reviewed by DOE's Credit Review Board and Secretary Chu. Upon their approval, the DOE will issue a conditional commitment for the loan guarantee to the STP 3&4 project.

Matthew A. Winters  
Senior Advisor, Loan Programs  
U.S. Department of Energy



**From:** James C McCrea [REDACTED]  
**Sent:** Wednesday, January 27, 2010 3:50 AM (GMT)  
**To:** 'Silver, Jonathan' [REDACTED]  
**Subject:** RE:

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Will chat tomorrow but I am definitely in the hurt us camp at the moment although we are still early in the process. I suspect she is being watched closely to make sure she represents OMB to DOE and not DOE to OMB. They gained. We are significantly weakened. She used to be able to get a good handle on things and really knew her way around. She could stay after meetings and have one on one chats to understand things. We no longer have the benefit of that and you get e-mails to check to see if that really was a DOE response that OMB got all weekend. It is not as if she just met me and has no understanding of how I handle myself professionally. I can't get the slightest hint of where things are or what their timetable might be in order to bring that info back to you. She and they are inscrutable.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

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**From:** Silver, Jonathan [REDACTED]  
**Sent:** Tuesday, January 26, 2010 10:32 PM  
**To:** jimccrea@ [REDACTED]  
**Subject:** Re:

What role is Kelly playing in all this?

It has always seemed to me that it could go either way: help us, in that she knew the program, or hurt us, as she tries to earn her omb stripes.

What do you think?

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

----- Original Message -----  
**From:** James C McCrea [REDACTED]  
**To:** Silver, Jonathan  
**Sent:** Tue Jan 26 22:26:46 2010  
**Subject:** RE:

I sure hope so as things have not improved. Unfortunately, they are worse these days and clearly, we will be unable to keep up the transaction pace if the hazing continues. This has been a pretty grim week.

We have everything over to them complete with a request that they send their response to Dave Frantz with a copy to me. We will see what happens as they really seem to be allergic to dealing with a contractor.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

JM\_00080039

[REDACTED]

From: Silver, Jonathan [REDACTED]  
Sent: Tuesday, January 26, 2010 10:17 PM  
To: jimccrea@[REDACTED]  
Subject: Re:

We made some headway in putting omb back in a box in the mtg with rahm today. We'll see how that plays out in the days ahead.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

----- Original Message -----  
From: James C McCrea [REDACTED]  
To: Silver, Jonathan  
Sent: Tue Jan 26 19:55:11 2010  
Subject: RE:

We only need to finish resolving a small DSCR issue so that we can provide info to OMB. Normally, we have it well enough resolved and would have sent it over an hour ago. However, given the type of reception we have been getting of late from OMB, we are not yet ready to respond and are trying to tie things down tighter to withstand any potential grilling. In a normal world, this would be a non issue. Our effort continues and is the only remaining outstanding item. It should not be a basis for delay from OMB unless they are looking for something upon which to hang delay.

Jim

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James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

From: Silver, Jonathan [REDACTED]  
Sent: Tuesday, January 26, 2010 7:48 PM  
To: jimccrea@[REDACTED]  
Subject:

Are we good on the two deals?

J

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

**From:** James C McCrea [REDACTED]  
**Sent:** Thursday, September 2, 2010 7:51 PM (GMT)  
**To:** 'boakley@ [REDACTED]  
**Subject:** RE: Reference for Questions to Solyndra

---

No shit. We did the right thing and did it well. It sure was worth the time to get it right and to avoid any potential political issues. Thanks for thinking of them so that we got a chance to sort it out. Dave and Frances got it from us yesterday

Jim

---

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]

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**From:** boakley [REDACTED]  
**Sent:** Thursday, September 02, 2010 3:46 PM  
**To:** James C McCrea  
**Subject:** FW: Reference for Questions to Solyndra

Note the email chain. I'm glad we spent time on this.

Brian Oakley  
Scully Capital

[REDACTED]

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**From:** Tsai, Christopher [REDACTED]  
**Sent:** Thursday, September 02, 2010 3:25 PM  
**To:** Frantz, David; Nwachuku, Frances; Westerhelm, Ove; Cho, Martin; Lee, Daniel  
**Cc:** [REDACTED] James C McCrea  
**Subject:** FW: Reference for Questions to Solyndra

Dave / Frances,

Please find attached the list of questions related to Solyndra's Base Case Projections that the team has assembled and will circulate to Solyndra after your review. Our plan was to circulate by COB today if possible.

Could you please advise if you have any additional input or questions to include?

Thanks,  
Chris

**From:** boakley@[REDACTED]  
**Sent:** Wednesday, September 01, 2010 12:17 PM  
**To:** Kim, Dong  
**Cc:** Lee, Daniel; Westerheim, Ove; thickman@[REDACTED]; Stephens, Scott; Cho, Martin; Tsai, Christopher; James C McCrea; Ghersi, Emilio  
**Subject:** FW: Reference for Questions to Solyndra

Dong,

As you may know, there is a lot of focus on the Solyndra transaction from a variety of perspectives (origination / credit regarding Phase II, task force, monitoring, OMB). The attached set of questions, which are largely technical, have been developed collaboratively based on a review of Solyndra's quarterly update as required under the loan documents. Separately, I understand the Beck is looking at these issues as part of the Phase II diligence.

Could you have a look? Ultimately, this list will go to Frances and Dave before going to Solyndra.

Thanks,  
Brian

Brian Oakley  
Scully Capital

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**From:** Cho, Martin [REDACTED]  
**Sent:** Tuesday, August 31, 2010 9:47 PM  
**To:** boakley@[REDACTED]  
**Cc:** Lee, Daniel; Tsai, Christopher  
**Subject:** Re: Reference for Questions to Solyndra

Brian, I am out of the office tomorrow and Chris and Daniel will be at MoFo for all day negotiations on our other deal. Please forward the questions to Dong, Scott Stephens, and Tom Hickman for comment, review and possible submittal to Solyndra.


Martin H. Cho  
U.S. Department of Energy

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**From:** boakley@[REDACTED]  
**To:** Cho, Martin; [REDACTED]@gmail.com; [REDACTED]; Westerheim, Ove  
**Cc:** Lee, Daniel; Tsai, Christopher; Ghersi, Emilio  
**Sent:** Tue Aug 31 18:55:55 2010  
**Subject:** RE: Reference for Questions to Solyndra

Yes, I think it would be good to circulate with Dong's group. Once done, I think we should submit to Solyndra and get their story. The IE work being conducted can help verify their statements and assumptions.

Brian Oakley  
Scully Capital



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**From:** Cho, Martin [REDACTED]  
**Sent:** Tuesday, August 31, 2010 5:54 PM  
**To:** [REDACTED]@gmail.com'; boakley@[REDACTED] Westerheim, Ove  
**Cc:** Lee, Daniel; Tsai, Christopher; Ghersi, Emilio  
**Subject:** Re: Reference for Questions to Solyndra

Brian, should we go ahead and circulate these to our engineers? Or, is that a separate list of questions?  
Martin H. Cho  
U.S. Department of Energy

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**From:** Stephen Shulman [REDACTED]  
**To:** boakley@[REDACTED]  
**Cc:** Lee, Daniel; Cho, Martin; Tsai, Christopher; Ghersi, Emilio  
**Sent:** Tue Aug 31 16:01:14 2010  
**Subject:** Re: Reference for Questions to Solyndra

These are questions we will address in our Phase 2 due diligence, but I have not seen any backup (other than company projections) to support these assumptions. As we discussed, the IE has been tasked with looking into these, but I don't believe we have seen anything from them yet.

On Tue, Aug 31, 2010 at 3:06 PM, boakley@[REDACTED] wrote:  
All,

Please see Solyndra questions attached.

Steve & Emilio, if you have seen answers to these based on Phase II, please let us know. If not, I suggest the next step would be to have someone from Dong's group take a look.

Thanks,  
Brian

Brian Oakley  
Scully Capital



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**From:** Lee, Daniel [REDACTED]  
**Sent:** Tuesday, August 31, 2010 9:22 AM  
**To:** boakley@[REDACTED]



**Cc:** Cho, Martin; Tsai, Christopher  
**Subject:** RE: Reference for Questions to Solyndra

Thanks Brian. That's correct. They were answered by Solyndra and I believe they were not yet sent to OMB.

Daniel J. Lee  
U.S. Department of Energy  
Tel: [REDACTED]

---

**From:** [boakley@](mailto:boakley@) [REDACTED]  
**Sent:** Tuesday, August 31, 2010 9:18 AM

**To:** Lee, Daniel  
**Cc:** Cho, Martin; Tsai, Christopher  
**Subject:** RE: Reference for Questions to Solyndra

Daniel,  
I'll have them to you shortly. I assume the last set of questions (the OMB responses) did not go to OMB. Also, these came from Solyndra. Is that right? I'm going to include some follow-ups.  
Thanks,  
Brian

Brian Oakley  
Scully Capital  
[REDACTED]

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**From:** Lee, Daniel [REDACTED]  
**Sent:** Tuesday, August 31, 2010 9:04 AM  
**To:** Lee, Daniel; [boakley@](mailto:boakley@) [REDACTED]  
**Cc:** Cho, Martin; Tsai, Christopher  
**Subject:** RE: Reference for Questions to Solyndra

Hello Brian,

We just wanted to follow-up on the Solyndra questions. The team wanted to circulate and review the questions internally prior to sending them to Solyndra on Thursday. Please let us know if you have any questions. Thank you again for your help in this regard.

Best,  
Daniel

Daniel J. Lee  
U.S. Department of Energy  
Tel: [REDACTED]

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**From:** Lee, Daniel  
**Sent:** Friday, August 27, 2010 5:14 PM

**To:** 'Brian Oakley [REDACTED]'  
**Cc:** Cho, Martin; Tsai, Christopher  
**Subject:** Reference for Questions to Solyndra

Hello Brian,

It was a pleasure meeting you today. Attached are Steve Schulman's comments to OMB's questions and some additional questions we prepared here on our end. You may find this helpful in creating your list of questions for Solyndra. As per our meeting, we plan to e-mail a circulated list of questions to Solyndra by Thursday (9/2). Please let us know if you have any questions for us in the meantime.

Best regards,  
Daniel

Daniel J. Lee  
U.S. Department of Energy  
Tel: [REDACTED]

**From:** James C McCrea [REDACTED]  
**Sent:** Wednesday, May 12, 2010 3:31 PM (GMT)  
**To:** 'McCrea, Jim' [REDACTED]  
**Subject:** FW: additional clarification needed on Kahuku -- please respond asap  
**Attach:** 030509 Updated LGPO Credit Policies and Procedures Manual Final CSC.pdf

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Jim

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James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

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**From:** James C McCrea [REDACTED]  
**Sent:** Monday, May 10, 2010 9:27 PM  
**To:** 'Fridell, Monique'; 'Sandra Claghorn'  
**Cc:** 'Heimert, Kimberly'  
**Subject:** RE: additional clarification needed on Kahuku -- please respond asap

I am not sure why this is such an issue. Let me start back at the beginning in an effort to be clear once and for all.

First, with respect to the 30 day requirement of the Final Rule, First Wind should not expect to close the transaction sooner than 30 days after the delivery by Fitch to DOE of the credit assessment which is based upon at least the appropriate loan docs. Until I talked with Dave Frantz on the topic today, I did not know how thoroughly this ground had been plowed on the Solyndra transaction nor how strongly both OMB and Treasury feel on this point. See Dave if you need clarification but it sounds to me like the prospect for relief on the 30 day rule is not very high. The other thing that everyone needs to understand is all that has to go on in order to put the transaction into the Federal accounting system which requires collaboration among OMB, Treasury, and parts of DOE with which you do not normally interact. To be clear, one of the reasons this is so carefully handled is that there are severe penalties for a violation of the Anti-deficiency Act including jail time. Mistakes are a really, really big deal. The Loan Programs has already had 1 near miss when a loan agreement was signed with a \$1,000 error in it. The process of unwinding that error was intense and involved all sorts of high level people in several agencies. The commercial world has a much simpler task in dealing with errors like that as it does not have to deal with Anti-deficiency Act violations.

As previously pointed out, it will take Credit a couple of days to get the package together upon receipt of the Fitch credit assessment as we have to prepare some comparisons per the agreement.

Now, for guidance on what the credit assessment has to be based on, let's start with the DOE LGPO Policies and Procedures, March 5, 2009. This document has been approved by CRB, discussed at length with other agencies including OMB, Treasury, KPMG (DOE's auditor), OMB and the Hill. Therefore, when in doubt, it is useful to refer back to it. The task that we are debating is how we determine the final credit subsidy cost. Well, as it turns out, Chapter VII titled "Documentation and Closing" very conveniently has a section VII.4 titled "Determine the Final Credit Subsidy Cost" which I have attached so that you don't have to dig out your manuals. I have highlighted in yellow a number of relevant passages which I include below:

- The final credit rating shall reflect the final terms and conditions of the Loan Guarantee Agreement and its associated financing documents.
- This procedure will be undertaken just prior to closing of the Loan Guarantee Agreement. At this time, project documents will have been finalized. As a result, the Rating Agencies will have sufficient information to provide a final credit rating for the project. This rating, which is an essential input for final

Credit Subsidy Cost determination represents a gating factor for closing of the Loan Guarantee Agreement.

- Upon substantial completion of the negotiation activities and project documentation process, a final credit rating should be requested from the Applicant.

I think that these excerpts give pretty good guidance. It is the last excerpt that I have been using as the basis for my argument that "near final" docs are sufficient. Now, what does that mean for the First Wind docs that have to be reviewed by Fitch to provide a credit assessment that can be used to determine the "final credit subsidy cost?" Well, I have not been through the DOE financing docs in great detail but from my understanding it should include, at a minimum, the following.

- Common Agreement
- Collateral Agency Agreement
- Note

My reasoning is that the Common Agreement includes a lot of what would be in a loan agreement elsewhere. However, it is missing some rather fundamental pieces which are contained in the other docs listed. You absolutely have to give the rating agency the document which contains the cash flow waterfall and the document that contains the amortization schedule. Could someone argue that the LGPO Policies and Procedures requires all documents to be final? Yes they could but I would argue that a review of the 3 listed would constitute "substantial completion of the negotiation activities and project documentation process" unless there is something that I am not understanding about our docs.

Let me speak for a moment to Monique's question of what Fitch is comfortable with. That is an extremely dangerous definition upon which to base your approach to the issue since Fitch merely issues a point in time rating. A rating issued after a review of the Common Agreement only is just that. It is not a rating of "the final terms and conditions of the Loan Guarantee Agreement and its associated financing documents" and as such, a rating on that basis does not meet the requirements of the LGPO Policies and Procedures. Here is the problem taken to its absurd extreme just to make a point and not to suggest that you would do this. Suppose Fitch issues a BB+ rating on a transaction based on a review of the common agreement but has not reviewed the Collateral Security Agreement or the Note. An unscrupulous deal team (again, not you guys!!!) perhaps even acting in concert with an unscrupulous credit group (not us guys!!!) and note, I have the unscrupulous lawyer on the deal team (and that most certainly is not esteemed counsel!!!) could negotiate the final two docs and put the equity higher than the debt in the waterfall and make the note into a bullet. Not a realistic outcome but I suspect that OMB thinks that it is more likely than I do!!!

I hope that this puts things in perspective and helps to explain what we all must do to be in compliance with the Final Rule and to be consistent with the DOE LGPO Policies and Procedures which, given that they have been approved by the CRB, must be complied with. OMB and Treasury, along with KPMG, GAO and others will all judge us by our compliance with both. I know that the process is frustrating for First Wind. However, neither the Final Rule nor the Credit Policies and Procedures have changed in some time. The deal will close when it is time. Credit will do everything that it can to speed the process but we do not have the ability, on our own, to ignore or modify either the Final Rule or the Policies and Procedures. At some point, when the transaction is closer to closing, there may come a time when it may be appropriate to work through Jonathan to collapse timetables a bit.

Let me know if you have further questions.

Jim

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James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

-----Original Message-----  
From: Fridell, Monique

Sent: Monday, May 10, 2010 5:51 PM  
To: 'James C McCrea'; 'Sandra Claghorn'  
Cc: Heimert, Kimberly  
Subject: additional clarification needed on Kahuku -- please respond asap

Credit colleagues:

FW had two subsequent questions:

1) If Fitch reviews Common Agreement and is satisfied, and changes line in rating letter stating that it has reviewed final financing document and Fitch is comfortable with issuing its letter on basis of only Common Agreement, are you comfortable with this or does DOE require that Fitch specifically 1) review and/or 2) acknowledge in letter having read other final versions of financing documents such as Sponsor Guaranty, Collateral/Agency Agreement, Note, etc.?

2) Does DOE Credit Policy have any other issues with Fitch letter? If so FW has proposed that we arrange a call with Sandy for tomorrow Tuesday to discuss other changes needed by DOE sooner rather than later. Sandy, can you please let me know when you can be available on Tuesday so I can ask FW to arrange a call in number? I am open most of the day.

Please let us know.

Monique

**From:** James C McCrea [REDACTED]  
**Sent:** Thursday, April 29, 2010 8:13 PM (GMT)  
**To:** 'Sandra Claghorn' [REDACTED]; 'Heimert Kimberly'  
**Cc:** [REDACTED]  
**Subject:** RE: Draft response to OMB on Transaction Changes Between Final Credit Assessment and Closing

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Sandy --

Another crack at it by you would be much appreciated. Call me if you need me. Thanks.

Jim

James C. McCrea  
[REDACTED]

-----Original Message-----

**From:** Sandra Claghorn [REDACTED]  
**Sent:** Thursday, April 29, 2010 3:38 PM  
**To:** Heimert Kimberly; Jim C McCrea  
**Cc:** Monique Fridell [REDACTED]  
**Subject:** Re: Draft response to OMB on Transaction Changes Between FinalCredit Assessment and Closing

Kimberly-

On your point #2, just to clarify the statement here is about the principal amort on the note...nothing to do with mandatory prepayments. The note amort (i.e. The step up to \$1.9MM won't change unless the note amount changes.

Otherwise, let me take another crack at this with your comments.

S

Sent from my Verizon Wireless BlackBerry

-----Original Message-----

**From:** Heimert Kimberly [REDACTED]  
**Date:** Thu, 29 Apr 2010 18:38:24  
**To:** 'jimmccrea@' [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** RE: Draft response to OMB on Transaction Changes Between Final Credit Assessment and Closing

Three thoughts.

- 1) I would not include even a list of examples of the types of things that are open to negotiation. There is a big area between term sheet items and notice provisions/forms of opinions/etc. that may change. I do not want to discuss any of those, unless they have a material impact on the credit of the deal.
- 2) I'm not sure that we are certain that the amortization schedule will not change. Although I hope and believe that to be the case, FFB is working to figure out how to deal with prepayments as a mechanical matter, and it seems to be a difficult process for them. We could move forward with the statement below and use it as another argument that FFB needs to figure out how to make it work mechanically.
- 3) I would change the bold sentence below to read as follows: If, for any reason, terms of the documents change in any way that would impact the rating, or result in the legal documents being non-compliant with the Final Term Sheet, DOE policies require that the deal will be re-reviewed before closing.

Kimberly

.....  
Kimberly Heimert  
U.S. Department of Energy  
Office of the Loan Guarantee Program  
[REDACTED]  
[REDACTED]

From: James C McCrea [REDACTED]  
Sent: Thursday, April 29, 2010 1:01 PM  
To: Heimert, Kimberly; Fridell, Monique; Sandy Claghorn  
Subject: Draft response to OMB on Transaction Changes Between Final Credit Assessment and Closing

Sandy has prepared the following draft as I got swamped and she bailed me out. I have reviewed it and think that it is responsive to Kelly's question. I made a couple of changes which I have highlighted in yellow just so Sandy can find them. Comments are requested. I would like to send this out by the end of the day. As an FYI, for those that have not seen recent e-mails to OMB, the Dep Sec and the WH (Browner, Aldy, Farrell & Zichal) as well as OMB from the Acting Dep Director (Liebman) down will be copied. Read and comment with the distribution in mind.

DRAFT

Kelly & Fouad

As we discussed, DOE will receive a "Final Private Sector credit rating" from Fitch on the First Wind-Kahuku transaction at least 30 days prior to closing. Delivery of this report is in compliance with the Final Rule and will be included in the OMB closing package that will start the 28-day review period. During the period between issuance of the final credit assessment and closing of the transaction, the transaction documents will be finalized. You have requested a list/description of the types of things that might change during this period. A brief description is provided below:

Deal terms that are NOT open to negotiation:

- \* All terms and conditions contained in the Final Term Sheet.
- \* Amortization schedule for calculation of the credit subsidy.
- \* Please note that the amortization schedule outlined in the project model may change based on the expected amount of the ITC Cash Grant (as further described below). Sandy - need to do something with this since what you had below is not part of this.

Examples of deal terms that may be open to negotiation:

- \* Notice provisions
- \* Financial reporting requirements
- \* Form of legal opinions
- \* Creation of schedules to the legal documents

Please note that the list above is not exhaustive, but is indicative of the types of negotiations that will likely continue through the closing review period. If, for any reason, terms of the documents change in any way that would impact the rating, or result in the legal documents being non-compliant with the Final Term Sheet, DOE policies require that the closing process will be stopped and the deal will be re-reviewed.

We trust that this explanation answers your question.

Jim

James C. McCrea

JM\_00078810





**From:** James C McCrea [REDACTED]  
**Sent:** Thursday, July 22, 2010 1:52 AM (GMT)  
**To:** 'Heimert, Kimberly' [REDACTED]  
**Subject:** RE:

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Completely understand. This is also one where if necessary, CRB could take an electronic vote to allow us to move CPs as necessary. The real key would be if the other side is far enough along and above all else, whether OMB and Treasury would play nice. Like I said, it would be a heavy effort. Would not know for sure til really late and everything would have to break our way. If it was Fri rather than Weds, that would be better and Mon/Tues of the following week would be much more doable. They really just cut it way too close to have a lot of assurance this time.

Jim

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: Heimert, Kimberly [REDACTED]  
Sent: Wednesday, July 21, 2010 9:15 PM  
To: 'jimmccrea@' [REDACTED]  
Subject: Re:

Can't move CPs to funding that the conditional commitment said were CPs to close without going back to crb.

Reality is that if we got the omb number tomorrow evening, we could get the action memo signed Friday. Omb could approve apportionment request Monday, Budget entries on Tuesday. Close on Wed. However, I'm not going down that path unless I'm told by counsel that the CPs are done and does totally final by Friday. Very doubtful.

----- Original Message -----

From: jimmccrea@ [REDACTED]  
To: Heimert, Kimberly  
Sent: Wed Jul 21 21:02:32 2010  
Subject: Re:

Are there and that can also be moved to CP to funding? Would think you would also need to pull in someone like Sven to help.

-----Original Message-----

From: Kimberly Heimert  
To: Jonathan Silver  
To: 'jimmccrea@' [REDACTED]  
Subject: Re:  
Sent: Jul 21, 2010 8:58 PM


Have to check with counsel re CPs, but I doubt it. But will check.

----- Original Message -----

From: Silver, Jonathan  
To: Heimert, Kimberly; 'jimmccrea@' [REDACTED]  
Sent: Wed Jul 21 20:56:24 2010  
Subject:

How quickly could we get beacon done if the pres wanted to announce it in ny next weds. Assume omb and everyone cooperated fully.  
Any chance?

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy



Sent via BlackBerry by AT&T

**From:** Silver, Jonathan [REDACTED]  
**Sent:** Saturday, May 22, 2010 9:51 PM (GMT)  
**To:** 'jimmccrea@[REDACTED]'  
**Subject:** Re:

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Is that a problem? The calendar I sent him was the one we agreed to yesterday. Are you saying now that that's not optimal.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

----- Original Message -----  
From: James C McCrea [REDACTED]  
To: Silver, Jonathan  
Sent: Sat May 22 17:25:24 2010  
Subject: RE:

The bulk of the materials on the geothermals went over on Fri May 14. That was everything but the actual Credit Subsidy Cost files that went over on Monday or Tuesday as I recall. However, the rest of it (which went over on the 14th) is what they need to spin up on the deal -- IE report, market report, credit paper, model, term sheet, presentation, risk rating, recovery rating etc.). We did brief on Wed. 5/19.

I have been trying to hold the Origination teams to 2 weeks between Credit Committee and CRB but will have to lengthen that by a week if there is an agreement with OMB/Treasury.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]

-----Original Message-----  
From: Silver, Jonathan [REDACTED]  
Sent: Saturday, May 22, 2010 4:57 PM  
To: 'jimmccrea@[REDACTED]'  
Subject: Fw.

Jim,  
What's the answer to Jeff's question?

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

----- Original Message -----  
From: Liebman, Jeffrey B. [REDACTED]  
To: Silver, Jonathan  
Sent: Sat May 22 16:12:39 2010  
Subject: Re:

Am I correct that the materials for the geo deals came over 8 days ago, and we were briefed on them 3 days ago?

----- Original Message -----

From: Silver, Jonathan [REDACTED]  
To: Liebman, Jeffrey B.  
Sent: Sat May 22 15:57:37 2010  
Subject: Re:

Sounds good. I'll call you tomorrow, but reminder that we have a crb for all three deals (including the 2 geo deals) on thurs and we need to figure out how to get your examiner work as complete as possible before then. Chu is very focused on meeting the commitments to the leadership. Getting the calendar squared away will be great. What we have to agree to there is how we handle missed deadlines. Seems to me if your guys miss a deadline, its like they approved. If my guys miss a deadline, we should provide you with more time. Let's discuss. What's the best time for you tomorrow?

J

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

----- Original Message -----

From: Liebman, Jeffrey B. [REDACTED]  
To: Silver, Jonathan  
Sent: Sat May 22 15:07:43 2010  
Subject: Re:

A Chu-Orszag-Browner meeting on Wed or Thurs sounds good. At the very least we should resolve Abengoa and manufacturing solicitation. I will see if my team thinks we are ready to resolve the more recent two.

Our folks are looking at your timeline. I think we will be able to reach agreement on this early in the week.

My home number is [REDACTED] if you want to talk today or tomorrow.

Jeff

----- Original Message -----

From: Silver, Jonathan [REDACTED]  
To: Liebman, Jeffrey B.  
Sent: Sat May 22 09:02:26 2010  
Subject:

Ok, here is what I propose we set as the review calendar. I look forward to discussing.

Day 0

DOE distributes approval materials to OMB/Treasury/FFB

Day 3

DOE briefs OMB/Treasury/FFB

Day 6

OMB/Treasury/FFB send consolidated list of questions

Day 9

DOE responds to questions

Day 12

OMB provides credit subsidy cost and rationale

Day 15

Staff level discussions on credit subsidy cost

Day 18

Management settles CSC is no staff level agreement

Day 19

DOE provides revised Credit Subsidy Cost files and transmittal language to OMB

Day 20


OMB approves credit subsidy cost and transmittal, Treasury confirms consultation

Day 21

Credit Review Board meets on transaction

Discussion and resolution of policy issues runs concurrently.

If we keep to something like this, we might get there. None of what we do works like this now.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  


**From:** McCrea, Jim [REDACTED]  
**Sent:** Thursday, September 23, 2010 11:05 PM (GMT)  
**To:** jimccrea@[REDACTED]  
**Subject:** FW: Shepherds Flat

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From: [REDACTED]@do.treas.gov [REDACTED]  
Sent: Thursday, September 23, 2010 7:04:34 PM  
To: McCrea, Jim  
Cc: Frantz, David  
Subject: Re: Shepherds Flat  
Auto forwarded by a Rule

You have this news before I do.

----- Original Message -----

From: McCrea, Jim [REDACTED]  
To: Burner, Gary  
Cc: Frantz, David [REDACTED]  
Sent: Thu Sep 23 19:02:51 2010  
Subject: Shepherds Flat

Gary --

I hear via Jonathan via the WH that we will be receiving Shepherds Flats questions this evening. I just wanted to make sure that I am on the distribution list for them when you guys push SEND. I have the team standing by to start response preparation as soon as they arrive.

Thanks.

Jim

James C. McCrea  
Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  
jim.mccrea@hq.doe.gov  
(203) 247-2791

**From:** Silver, Jonathan [REDACTED]  
**Sent:** Wednesday, October 13, 2010 1:09 AM (GMT)  
**To:** jimccrea@[REDACTED]  
**Subject:** Re: Unistar

---

My point is they hate email trails. We can accomplish the same outcome with a verbal request and an artfully written cover note to the package. This just pisses them off.  
Done. Forget it. Just for future reference.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

----- Original Message -----

From: jimccrea@[REDACTED]  
To: Silver, Jonathan  
Sent: Tue Oct 12 20:35:51 2010  
Subject: Re: Unistar

I took a different approach of making them tell us what the number is. That makes it their number rather than ours which it is. They probably won't be any happier with my request for confirmation than they would be with a request for their cash flows. However, if you still feel strongly, when they confirm, we can still ask for their cash flows. However, I would much rather they own the number and be the entity that has to explain it. We can't explain what we do not know.

Jim

-----Original Message-----

From: McCrea, Jim  
To: jimccrea@[REDACTED]  
Subject: FW: Unistar  
Sent: Oct 12, 2010 8:10 PM

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From: Silver, Jonathan  
Sent: Tuesday, October 12, 2010 8:10:30 PM  
To: McCrea, Jim  
Subject: Re: Unistar  
Auto forwarded by a Rule

Wrong message.  
I would have called on phone and asked for their back up.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

----- Original Message -----

From: McCrea, Jim  
To: Colyar, Kelly T. [REDACTED]; 'boukleya' [REDACTED]; [REDACTED]  
Cc: Saad, Fouad P. [REDACTED]; [REDACTED]; [REDACTED]; Fridell,  
Monique; Frantz, David; Silver, Jonathan  
Sent: Tue Oct 12 20:00:41 2010  
Subject: RE: Unistar

Kelly --

Per your request, DOE is transmitting the UniStar final cash flows that support the 50% PPA/completion guarantee alternative which results in a credit subsidy cost of 6.42%. These cash flows do not take into account the proposed additional \$300MM of cash collateral. We understand that the credit subsidy cost after giving consideration of the cash collateral is 4.9%. Please confirm.

If you have any questions, let us know.

Jim

James C. McCrea  
Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

-----Original Message-----

From: Colyar, Kelly T. [REDACTED]  
Sent: Tuesday, October 12, 2010 6:57 PM  
To: McCrea, Jim; 'boakley' [REDACTED]  
Cc: Saad, Fouad P.  
Subject: Unistar

Per our conversation earlier, could DOE send the final cashflows representing the additions of the 50% PPA and completion guarantee?

Please let me know if you have any questions. I am available by phone to discuss later this evening.

Sent via BlackBerry by AT&T



**From:** McCrea, Jim [REDACTED]  
**Sent:** Thursday, April 29, 2010 1:59 PM (GMT)  
**To:** jimccrea@[REDACTED]  
**Subject:** FW: OMB Gate 1 Proposal

---

Jim

James C. McCrea  
Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  
jim.mccrea@hq.doe.gov  
(203) 247-2791

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**From:** McCrea, Jim  
**Sent:** Thursday, April 29, 2010 9:59 AM  
**To:** Silver, Jonathan  
**Cc:** Frantz, David; brian oakley [REDACTED]  
**Subject:** OMB Gate 1 Proposal

Jonathan --

I thought a good bit overnight about the OMB Gate 1 proposal and the more I thought about it, the more puzzled I became. I did not know that we had any Gate 1 problem other than an inability to push the Gate 1's through OMB. Further, this morning I discussed Gate 1's with Dave Frantz who concurs with my analysis and conclusions. I also talked with Brian Oakley who indicates that there are a couple of technical problems in the Gate 1 process that can lead to strange results. The net result is that I think that there is something of a communications failure in that we don't really know what problems OMB is attempting to solve although their review of UniStar and Tenaska may have caused OMB to focus on the technical problems that Brian has observed. Also, for the record, I believe that here have only been two Gate 1 estimates put into the approved Gate process - UniStar and Tenaska.

**Policy Overview:**

The Gate process was the subject of intense and high level discussions between OMB and DOE. I believe that impedes between DOE and OMB such as the standard recovery estimate, were ultimately resolved by extremely high level WM involvement. As a result, since this is a highly negotiated and codified process, changes ought to be made extremely carefully to avoid unexpected results. Further, since the intent was a broader range at the first gate which would narrow as the transaction moved to closing while ensuring that the range was broad enough to encompass the closing credit subsidy, the Gate process is interconnected so changing Gate 1 could result in issues later in the process.

The Gate 1 process is designed to use NO DOE judgement as it is intended to allow an applicant to receive a Gate 1 range estimate shortly after the application is submitted and before DOE has done any analysis. The only inputs to the Gate 1 range are the amortization schedule submitted by the applicant and the ratings in the credit assessment prepared by the rating agency. Put all that into the model, turn the crank and out comes the result. We submit all of that to OMB, along with the paragraph communication the result to the applicant. OMB's role is to approve that package and to allow us to release the letter to the applicant.

Finally, the Gate 1 process should allow OMB to identify, at an early stage, any policy issues that might be apparent from a review of the credit assessment which would help prevent policy surprises later in the transaction. The opportunity for OMB identification of policy issues is important and should not be eliminated. This process is sufficiently important that we probably should send the credit assessments on all transactions (whether we are seeking a Gate 1 estimate or not) over to OMB with a request that they let us know if they see any policy issues.

#### Technical Issues:

Brian has identified several disconnects in the Gate 1 process. First, it relies on the recovery estimates in the rating agency credit assessments which are generally significantly higher than our recoveries which are start at 55% and which are difficult to notch thereby underestimating the likely credit subsidy cost. Secondly, the amortization schedules in the application may not match the amortizations upon which the rating agency credit assessments were based. Brian suspects that these issues may have surfaced for OMB in its review of the UniStar and Tenaska Gate 1 estimates. However, at the staff level, we have only heard of two issues that arose in the OMB Gate 1 review - the FFB spread and their issue with the default probability curves. Both of these issues have been resolved. Therefore, we do not know the basis for the OMB proposal.

#### Conclusions:

- There are benefits to the process being purely mechanical, without the application of DOE judgement, and communicated in writing to the applicant as follows:
  - We don't know enough when the Gate 1 estimate is prepared immediately upon application to be able to exercise judgement and we are, as a result, protected by the process from accusations that we exercised judgement inappropriately.
  - The mechanical process theoretically allows a rapid turn around thereby promptly giving the applicant the information that it needs to make an informed economic decision about proceeding and incurring additional expenses.
  - Communication in writing properly documents this important communication with the applicant and avoids the possibility of miscommunication. It also standardizes communication across applications and prevents and shading of the communication that might result from a discussion during an oral communication.
- If the technical issues Brian has raised are behind the OMB proposal, there appear to be relatively easy solutions that could be used to avoid such issues.

#### Recommendations:

- The OMB proposal to change the Gate 1 process should be declined as we do not know what problem it is attempting to solve and changes to the heavily negotiated process should be made carefully and with considerable thought by both agencies so as to preserve the benefits and protections of the current process.
- You and Jeff should both direct that there be staff level discussions on the issue with full communication in both directions and that the staffs should develop a joint recommendation to you and Jeff as to any recommended changes.

Jim

James C. McCrea  
Senior Credit Advisor  
Loan Programs  
U.S. Department of Energy  
[REDACTED]

**From:** James C McCrea [REDACTED]  
**Sent:** Tuesday, October 5, 2010 3:13 AM (GMT)  
**To:** 'Paul Barbian' [REDACTED]  
**Subject:** RE: J Silver call

---

Paul –

Nothing going on with UniStar that directly affects STP 3&4. Waiting to see where discussions end up between the Administration and UniStar.

Jim

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James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

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**From:** Paul Barbian [REDACTED]  
**Sent:** Monday, October 04, 2010 5:37 PM  
**To:** 'James C McCrea'  
**Subject:** J Silver call

Jim:

Did the call take place, and I just missed it, or is it delayed.

Paul

**From:** James C McCrea <[REDACTED]>  
**Sent:** Thursday, June 17, 2010 2:40 PM (GMT)  
**To:** 'Heimert, Kimberly' <[REDACTED]>@hq.doe.gov>  
**Subject:** RE: Karine - Peter O'Rourke

---

At your convenience. I am around this morning but headed to Treasury/FFB just before 1 for a UniStar briefing.

Jim

James C. McCrea  
JAMES MCCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Heimert, Kimberly [mailto:[REDACTED]@hq.doe.gov]  
Sent: Thursday, June 17, 2010 9:19 AM  
To: 'James C McCrea'  
Subject: RE: Karine - Peter O'Rourke

Jim:

I certainly defer to you completely on staffing... And understand your concern.

When you have a few minutes, however, I would like to chat with you (in private) about the situation, though.

Thanks,  
Kimberly

.....  
Kimberly Heimert  
U.S. Department of Energy  
Office of the Loan Guarantee Program

[REDACTED]

-----Original Message-----

From: James C McCrea [mailto:[REDACTED]]  
Sent: Thursday, June 17, 2010 6:26 AM  
To: Heimert, Kimberly  
Subject: RE: Karine - Peter O'Rourke

Kimberly --

Now that I am not on a Blackberry, let me be a bit more responsive.

Karine is doing a fantastic job. The problem is that I have three people in Credit who have not been here long enough to completely internalize the nature of the issues we face in the approval process -- Karine, Julie Stewart and John Ravis. As a result, I am not ready to have any of them be the lead for Credit on a transaction. There is so much about what we do that is, as you know, so different from the outside world and getting fully socialized is such an important part of bringing someone on board. If we fail to do that, huge issues or sensitivities that will derail a deal will be completely missed. The issue is even worse in supporting Peter. He has the same

issue himself, further compounded by the fact that he works directly for Jonathan and is under enormous pressure to get USRG done. He has far less sensitivity to the issues we face than do even the Originators on Dave Frantz' staff. On top of being insensitive (and I have no issue with him being insensitive as he has absolutely no reason to be sensitive as he has never seen the approval process here) he is very resistant to things being pointed out to him because they run so counter to what he has seen outside. He is more dismissive than most of the regular Originators and so putting an inexperienced (in our ways) Credit person on with him will result in both of them doing great damage to themselves as issues will surface very late in the process after many people become vested. Roger is actually one of the best in bringing issues to me for advice as to how it will play out in the approval process and for getting a double check from myself or from Brian to be sure that he is perceiving things properly. That is why he is particularly well suited to support and balance Peter, especially given the pressures that Peter is under.

I hope that this further explanation make things a bit more clear and provides perspective. Roger is particularly well suited and I really do not have the senior staff capacity to do otherwise.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: Heimert, Kimberly [redacted]@hq.doe.gov  
Sent: Wednesday, June 16, 2010 11:58 AM  
To: [redacted]  
Subject: Karine - Peter O'Rourke

Jim:

Sensitive issue.... Peter O'Rourke is fit to be tied in working with Roger. In my view, for some good and not so good reasons... but definitely a personality mismatch. I noticed in one of Roger's emails to Peter re USRG that he copied Karine. In my view, their personalities would mesh better, but she certainly wouldn't back down on credit issues. Peter has a meeting with Lennar on a potential new structure tomorrow that I will be attending, and he wants a credit person. Do you think it's possible for Karine to participate by phone in that meeting?

Kimberly

\*\*\*\*\*  
Kimberly Heimert  
U.S. Department of Energy  
Office of the Loan Guarantee Program

**From:** James C McCrea [REDACTED]  
**Sent:** Saturday, October 9, 2010 3:25 PM (GMT)  
**To:** 'Wright, Morgan' [REDACTED]  
**Subject:** RE: Ashburne  
**Attach:** constellationenergy100810.PDF

---

Far from over. Been on UniStar all morning. Here is the letter as a PDF. It is a good read.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Wright, Morgan [REDACTED]  
Sent: Saturday, October 09, 2010 11:23 AM  
To: jimccrea@ [REDACTED]  
Subject: Re: Ashburne

Thanks for the note. I saw the article but couldn't access the letter from my phone. I don't think this is all done yet; interesting strategy from the White House.

----- Original Message -----

From: James C McCrea [REDACTED]  
To: Wright, Morgan  
Sent: Sat Oct 09 09:38:53 2010  
Subject: RE: Ashburne

Chugging away at my desk this morning and John is on my list. Will get that done shortly. Sorry I did not get to it yesterday.

BTW, Washington Post has a big story on UniStar and includes a link that gets you to the actual letter that DOE received yesterday!

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: McCrea, Jim [REDACTED]  
Sent: Saturday, October 09, 2010 9:25 AM  
To: jimccrea@ [REDACTED]  
Subject: FW: Ashburne

---

From: Wright, Morgan  
Sent: Saturday, October 09, 2010 9:24:51 AM  
To: McCrea, Jim

JM\_00065915

Subject: Aslbums  
Auto forwarded by a Rule

Jim - sorry to bother on the weekend. Can you send me an introductory note to John? With the portal I can get him started on about half of the Round 8 part I's without him having to come down here. We can figure out how to work the others early next week.

Thanks - enjoy the holiday.

Morgan



## Constellation Energy

October 8, 2010

The Honorable Dan Poneman  
Deputy Secretary and Chief Operating Officer  
U.S. Department of Energy  
Forrestal Building  
1000 Independence Avenue, SW  
Washington, DC 20585-1000

Dear Deputy Secretary Poneman,

SUBJECT: Calvert Cliffs #3 Loan Guarantee

For the better part of the last year, Constellation Energy and our partner Electricite de France (EDF), through our joint venture, UniStar Nuclear Energy (UNE), have worked with the staff at the Department of Energy's Loan Guarantee Program Office to advance our application and receive a conditional commitment for a loan guarantee for the Calvert Cliffs #3 nuclear plant project under Title XVII of the Energy Policy Act of 2005. However, for the reasons described in more detail below, in light of the significant and ongoing uncertainty created by the Office of Management and Budget's inability to address significant problems with its methodology for determining the project's credit subsidy cost and the unreasonably burdensome conditions a loan guarantee under this approach would require, we regret to inform you that Constellation Energy does not see a timely path to reaching a workable set of terms and conditions that would be economically reasonable and statutorily justifiable. While it may yet be that our partner EDF is able to proceed in the face of such uncertainty, Constellation Energy is unable to do so.

As our discussions got underway in earnest earlier this year, we were very hopeful that the DOE process would produce a workable set of terms and conditions that would enable the project to advance to the next stage. The professionalism and dedication of the program office was first-rate. The staff were very clear about what was needed to ensure appropriate risk-mitigation for the taxpayer and worked with us to craft conditions to meet those needs, providing a foundation for us to work with our partners on an appropriate internal allocation of those risks. As you know, however, as our application went through preliminary credit review during the Summer, we were surprised to be presented with a shockingly high estimate of the credit subsidy cost that we and our partners would have to pay the U.S. Treasury in order to obtain the loan guarantee: 11.6%, or about \$880 million. Such a sum would clearly destroy the project's economics (or the economics of any nuclear project for that matter), and was dramatically out of line with both our own and independent assessments of what the figure should reasonably be.

During the course of our discussions, Constellation Energy and our partners identified a significant problem in the methodology that the OMB requires for the credit cost calculation, a problem that is applicable beyond just our project, and therefore of significant program and policy consequence. Yet, in seeking to explore this further, we encountered significant delay and resistance in being able to even engage on the issue. After finally being able to detail our analysis of the problem and possible solutions to key officials, and after Congress held a hearing exploring the broader problem, we understand the



**From:** boakley [REDACTED]  
**Sent:** Wednesday, September 22, 2010 8:55 PM (GMT)  
**To:** James C McCrea [REDACTED]; 'Anthony Curcio'; [REDACTED]; John Ravis [REDACTED]; Julie Stewart [REDACTED]; Karine Khatcherian [REDACTED]; Paul Barbian [REDACTED]; Renee Sass [REDACTED]; Roger McDaniel [REDACTED]; [REDACTED]; Sandy Claghorn [REDACTED]; [REDACTED]@scullycapital.com; 'Robert Bowen' [REDACTED]  
**Subject:** RE: Call For Nominations

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See article title. Things move fast around here.

[http://www.lipower.com/Article/2675293/L5\\_Power\\_IV\\_Snags\\_DOE\\_Financing.html](http://www.lipower.com/Article/2675293/L5_Power_IV_Snags_DOE_Financing.html)

Brian Oakley  
Scully Capital

[REDACTED]  
(202) [REDACTED]  
(202) [REDACTED]

---

**From:** James C McCrea [REDACTED]  
**Sent:** Tuesday, September 21, 2010 10:18 PM  
**To:** 'Anthony Curcio'; boakley [REDACTED]; John Ravis; Julie Stewart; Karine Khatcherian; Paul Barbian; Renee Sass; Roger McDaniel; Sandy Claghorn; [REDACTED]; 'Robert Bowen'  
**Subject:** Call For Nominations

So here is a significant topic for tomorrow's Credit call:

Some of you have heard this but to put us all on the same wavelength, Jonathan came back from a high level WH meeting late this afternoon. There is pressure to get a lot more deals through the shop. OMB says it is not the bottleneck and that we have only given them two deal in the last 58 days or something like that. There also seems to be a greater appetite for risk from the Acting Director. The net result of all of this is that Jonathan wants to send 2 more deals over next week (Shepherds Flat and Baldwin don't count). The intent is to send them over actually using the FLIP structure. What goes over will go over with abbreviated credit papers of perhaps 30 pages or so. There will be a ton of CPs to closing that will be spelled out. I told JS that I thought it unlikely that deals that had been moving along on a different basis could be redirected on such short notice. He is aware of the difficulties. Nevertheless, there is a call for nominations for candidates for the next 2 deals. One may well be SWIP but I don't have a ready answer for the other one. The whole thing will be the major topic for tomorrow's call.

Oh, inside joke for the IBM 1099ers – since we are to be part time at 80 hours per month per the Work Authorizations that some have received from Aspen, it appears that this will be a wild ride!

Just wanted to give you a heads up so you can do a bit of thinking in the morning before the call while eating your Cheerios or brushing your teeth.

Jim

---

James C. McCrea

**JAMES McCREA & ASSOCIATES LLC**



JM\_00179230

**From:** James C McCrea [REDACTED]  
**Sent:** Tuesday, April 27, 2010 7:32 PM (GMT)  
**To:** 'Roger McDaniel' [REDACTED]  
**Subject:** FW: Caithness Wind

---

FYI. Can we discuss? I am in meetings this afternoon but if you can give me a set of issues that need to be addressed, I would like to get something to Jonathan.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]

---

**From:** McCrea, Jim [REDACTED]  
**Sent:** Tuesday, April 27, 2010 3:19 PM  
**To:** jimccrea [REDACTED]  
**Subject:** FW: Caithness Wind

---

From: Silver, Jonathan  
Sent: Tuesday, April 27, 2010 3:18:43 PM  
To: McCrea, Jim  
Subject: FW: Caithness Wind  
Auto forwarded by a Rule  
FYI

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
[REDACTED]  
[REDACTED]

---

**From:** Walsh, Kevin EFS-Stmfd (GE Capital) [REDACTED]  
**Sent:** Tuesday, April 27, 2010 2:55 PM  
**To:** Silver, Jonathan; Schultz, Douglas  
**Cc:** [REDACTED]@caithnessenergy.com  
**Subject:** Caithness Wind

Dear Jonathan and Doug

We have been advised by the White House and other sources that we are likely to get the "green light" this week to move forward with the Shepherds Flat wind project. Assuming that is the case, we would like to understand the remaining tasks and associated timeline required by DOE to complete its review/approval of the project. Les Gelber and I will be in DC tomorrow and would like to stop by any time between noon and 2pm to briefly discuss. If a face-to-face meeting cannot be arranged for tomorrow, we would like to propose a call on Thursday, April 29<sup>th</sup> at your convenience.

Regards

Kevin Walsh

## GE Energy Financial Services

Kevin P. Walsh

Managing Director and Leader  
Power & Renewable Energy



[www.geenergyfinancialservices.com](http://www.geenergyfinancialservices.com)

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**From:** James C McCrea [REDACTED]  
**Sent:** Wednesday, June 30, 2010 12:12 AM (GMT)  
**To:** 'Renee Sass' [REDACTED]; 'Brian Oakley' [REDACTED];  
'Steve Shulman' [REDACTED]  
**Subject:** RE: Renee's Comments to Abound follow-up questions (6-25-2010) v5 Assignments and Rev - SAS adds RJS comments

---

Renee –

Things are simply moving too fast due to timetables being set on the 7<sup>th</sup> floor and higher. The entire package has already been sent to OMB.

I just got pinged by the Dep. Sec. to see if we had a Treasury response which we do not. Things are being driven by forces above the agencies.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

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**From:** Renee Sass [REDACTED]  
**Sent:** Tuesday, June 29, 2010 7:52 PM  
**To:** Brian Oakley; James C McCrea; Steve Shulman  
**Subject:** Renee's Comments to Abound follow-up questions (6-25-2010) v5 Assignments and Rev - SAS adds RJS comments

I added a few comments (as comments, not blackline)

Renee

**Donovan, Sarah**

---

**From:** Dennis Duffy [REDACTED]  
**Sent:** Monday, October 08, 2012 12:27 PM  
**To:** Klein, Gary  
**Subject:** FW: White House call

---

**From:** Dennis Duffy  
**Sent:** Friday, June 17, 2011 1:18 PM  
**To:** [REDACTED]@state.ma.us  
**Subject:** White House call

Bill,

We had a very encouraging call yesterday with the WH, including David Hayes and Laura Davis of DOI, Heather Zicha, Nat Keohane and Ron Bloom (the Administrations' Senior Counselor for Manufacturing Policy). They told us that they're looking for ways to help get the project financed (including possible action under section 703 and other options.) We responded to several questions as to what is needed in the current financing markets. We mentioned that we are working with Barclays on an updated investment memorandum that should be finalized shortly, and we were asked to go to DC to do a walk thorough of the memo, along with Barclays, as soon as it is ready to better convey how the financing works. Barclays has been our project financial advisor for several years, coordinating efforts to structure and raise the requisite debt and equity. Ted Roosevelt IV has lead the team dating back to days when Lehman was the advising entity.

**From:** Paul Barbian [REDACTED]  
**Sent:** Thursday, October 1, 2009 6:20 PM (GMT)  
**To:** James C McCrea [REDACTED]  
**Subject:** To remind

---

Jim:

Here is a list of things we talked about that you said you would provide when you have time (I understand this could be awhile)

Does from Dick Corrigan about the \$50 million project in Chicago that is of interest to the White House. If dick gives them to you in hard copy, I'll try to track you down on Friday to retrieve;

Engineers report for Bright Source;

Areva term sheet

List of blogs on politics and energy

Safe travel, Paul

**From:** jim McCrea [REDACTED]  
**Sent:** Thursday, October 28, 2010 4:09 AM (GMT)  
**To:** 'Silver, Jonathan' [REDACTED]  
**Subject:** RE:

---

Baldwin is the tip of the iceberg. If it goes down because it is perceived to be take out financing, Hudson Ranch and a bunch of other transactions will have to be turned down for the same reason or we will be treating applicants unfairly. We need to ID those other transactions tomorrow and start to get ready to convey the bad news. Perhaps you might want to give the WH the pleasure of telling Hudson Ranch that they are not eligible yet again!!!!

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

-----Original Message-----

From: Silver, Jonathan [REDACTED]  
Sent: Wednesday, October 27, 2010 10:42 PM  
To: 'jimccrea@optonline.net'  
Subject: Fw:

Fyi  
Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

----- Original Message -----

From: Silver, Jonathan  
To: Hurlbut, Brandon  
Sent: Wed Oct 27 22:37:22 2010

Rather than complain, a thought.

To do these analyses, we will, and should, share what we are looking for with applicants and sponsors. We will also need to tell them what we think is too high, etc.

It will be interesting to watch what happens when an applicant learns that his int is too high to qualify. Should make for interesting hill-omb dialogue.

Course, I'm going to be interested to watch what happens when we turn baldwin down. Project is completely eligible and rock solid.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]



**From:** James C McCrea [REDACTED]  
**Sent:** Tuesday, January 5, 2010 5:47 AM (GMT)  
**To:** 'Sandra Claghorn' [REDACTED]  
**Subject:** RE: First Wind

---

I felt like throttling her and this is not the first time. She is a first class whiner among other things!!! The real point in letting you know is so that you are alert and can be real cautious in dealing with her. I will try to call. I am in a BrightSource meeting that starts at 8:30 tomorrow and goes for who knows how many hours. 5-6 is not unlikely.

On Weds, we have the ATMV conference room. Also, Team North now has its own space at DOE. We work out of the storage room across from the ATMV conference room across the main public corridor from Kelly's office. First door on the right is file room. Second door, directly across from the entrance to the ATMV conference room is the home of Team North - 3 credenzas, 3 chairs, a fan, a coat rack and a phone as our cell phones generally do not work in the room!!! Oh yeah, we also are the proud owners of 2 power strips.

Also, just to alert you, it is not working for me to replace Kelly. First, Jonathan insists that I be here 5 days a week starting in time for the ATMV staff meeting at 9:15 Monday. That would create tax issues as I would spend so much time here that I would be a tax resident of DC, VA and CT and I would lose deductibility of travel expenses. Further, reimbursement of travel expenses is a big issue. Our workaround was not designed for such a level of expenses coupled with long hours. Everything must fit within the TMS contract with DOE and it does not as currently structured. If I did what Jonathan wants me to do, I would need to be reimbursed more than \$75K for the hit I would take and there is no way to do that within the contract. We are working on another solution where we will leverage that person like we leverage Kelly. Still, I will spend a ton of time here but stay on the correct side of the tax lines. Now we are working to address the reimbursement issue when travel is that heavy. Will try to call you after BrightSource. If we don't chat, enjoy your dinner and see you Weds morning. Feel free to call once you reach the Hilton to coordinate.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: Sandra Claghorn [REDACTED]  
Sent: Tuesday, January 05, 2010 12:17 AM  
To: James C McCrea  
Subject: Re: First Wind

Thanks! I'm sure you can tell by the tone of my note that I was perturbed by her comment. I appreciate your words of encouragement because I thought we did a pretty good job too!

I'm on a 3pm Amtrak tomorrow and meeting a friend for dinner tomorrow night. If we don't speak before, perhaps I will see you on the train in Weds morning. We all know we don't need to plan it....I'll just run into you guys in transit! :)

S

Sent from my Verizon Wireless BlackBerry

-----Original Message-----

From: James C McCrea [REDACTED]  
Date: Tue, 5 Jan 2010 04:28:22  
To: <sandra.claghorn@doe.gov>  
Cc: <kelly.colyan@doe.gov>  
Subject: RE: First Wind

1024x768 Clean false false false EN-US X-NONE X-NONE MicrosoftInternetExplorer4

Sandy -

JM\_00080216

We can chat when you are down here or tomorrow if we can find a time. Regarding why we can't function like a bank, you are absolutely correct but you forgot one point. We had 4 transactions running simultaneously and each of them was a multi-billion dollar loan guarantee. Unless I am mistaken, the smallest was \$1.51B!!!! (Georgia Power, Oglethorpe, MEAG and BrightSource) and all of them were extremely complex. Heck, on the Vogtle transactions, you and the rest of Credit Policy were doing the credit analysis in real time concurrently with the negotiation of the transaction. That is something that banks never do! Plus, all 4 of these multi-billion dollar deals were attracting major political attention from such minor players as the White House and the Senate Majority Leader. That is not generally something that a bank has to deal with either. I look at what got pulled off by CP in December and view it with awe.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

From: Sandra Claghorn [REDACTED]  
Sent: Monday, January 04, 2010 5:19 PM  
To: Jim McCrea  
Cc: Kelly Colyar  
Subject: RE: First Wind

I'm sorry to hear that. Please let me know what I can do to help. As you know, we discussed this deal back in December and it was jointly decided that we should focus on the three Vogtle deals and push First Wind to January. This was communicated to Monique at the time. If she doesn't like that, perhaps she should take it up with Jonathan.

On the other points, yes, the questions are definitely "initial" as I assumed we would go back and forth with additional questions until we have been through all aspects of the deal. Generally, the process is iterative but if she would prefer a more formal approach, I would be happy to hold back questions until I'm completely through the data and send her a completed submission at that time.

Lastly, we cannot function like a bank because:

1. Our role is different than at a bank. In banking, credit review looks at a completed presentation and is not required to review contracts, models or financial statements. Credit review does not prepare its own presentations nor have a concept of credit subsidy.
2. We are not staffed like a credit review team at a bank with layers of junior staff that are set up to address continual deal flow. This was an unusual situation with a landmark deal that needed immediate attention.

I guess the final point is that I feel we were very responsive on Sage - I spoke with her almost daily on that deal. I'm sorry that she's frustrated with us, but unfortunately, I'm afraid she's just going to have to deal with it.

Anyway, these are my two cents. Call me when you come up for air - any time up to 10pm is fine.

S

Sandra Claghorn  
TMS Consultant - LGPO  
Credit Policy

[REDACTED]

Date: Mon, 4 Jan 2010 16:35:14 -0500  
From: jimmcree [REDACTED]  
Subject: RE: First Wind  
To: sandra.claghorn [REDACTED]  
CC: Kelly.Colyar [REDACTED]

Sandy -

We need to chat. Monique announced in the Origination Meeting this morning that they "finally had questions from Credit Policy after 25 days" and after being advised that Vogtle has been the cause of delay stated that she could not understand why CP could not handle multiple transactions simultaneously like any other bank could. She also emphasized that the questions received were "initial questions" strongly implying that they were our "real" questions but merely a first pass. Lots to talk about. I am tied up for the rest of the day. You can probably find me at some point this evening after dinner but I have no clue when I get out of here today. Then I am back here for an 8AM BrightSource meeting that will run much of Tuesday.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

From: Sandra Claghorn [REDACTED]  
Sent: Monday, January 04, 2010 4:09 PM  
To: Monique Fridell; John Ashburn [REDACTED]; hai.duong [REDACTED]; kimberly.heimer [REDACTED]  
Cc: Kelly Colyar; Varbin Staycov  
Subject: First Wind

Hi guys-

Just checking in again to make sure that you got our list of initial questions and to see if you wanted to schedule a time to chat about the deal. I'm open tomorrow until about 2:30pm and will be in DC Weds and Thurs. Varbin, I'm not sure what your availability is the rest of the week but hopefully we can find a time that works for everyone.

One additional question that has come up as we work through the contracts: do you know if there is a structure diagram that shows all the legal entities and how they relate to each other? Specifically, Hawaii Holdings LLC (which also owns the Kabeawa ownership entities), UPC Wind Acquisition V, I.I.C. (counterparty to the TSA), UPC Wind O&M I.I.C. (counterparty to the Turbine O&M Agreement - I assume this is the same as First Wind O&M LLC, counterparty to the O&M Agreement?), and UPC Wind Partners LLC (Guarantor under the TSA).

I'm assuming that the UPC entities are related to First Wind's former name, and that these entities have merged into First Wind entities, just want to make sure we understand the ownership chain.

Thanks again-  
Sandy

Sandra Claghorn  
TMS Consultant - LGPO  
Credit Policy

**From:** McCrea, Jim [REDACTED]  
**Sent:** Monday, June 7, 2010 7:03 PM (GMT)  
**To:** jimccrea [REDACTED]  
**Subject:** FW: Hoyer call  
**Attach:** S1 Briefing Call with Hoyer.doc; Talking Points for Call with Majority Leader Hoyer.docx

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-----  
From: Silver, Jonathan  
Sent: Monday, June 07, 2010 3:02:50 PM  
To: Frantz, David; Fridell, Monique; McCrea, Jim  
Subject: FW: Hoyer call  
Auto forwarded by a Rule

Pls review asap with any comments  
Any update on constellation's trip to France?

Jonathan Silver  
Executive Director  
Loan Programs  
US Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585  
[REDACTED]

-----Original Message-----

From: Levy, Jonathan  
Sent: Monday, June 07, 2010 2:57 PM  
To: Silver, Jonathan; Hurlbut, Brandon  
Cc: Fridell, Monique  
Subject: Hoyer call

Jonathan,

The Hoyer call is definitely on for today, most likely at 5:15. Attached are the latest drafts of the TPs and memo. Do we have an update on the France meeting? Is there anything else S1 should know for the call? Please review ASAP.

Thanks,

Jonathan Levy  
Office of Congressional and Intergovernmental Affairs U.S. Department of Energy [REDACTED]



## Call with Majority Leader Steny Hoyer (D-MD)

TBD

TBD

Meeting requested by Majority Leader Hoyer

Briefing prepared by Jonathan Levy, CI, [REDACTED]

### EVENT

Majority Leader Hoyer has asked for a call to follow up on your previous discussion on the Loan Guarantee Program and specifically Constellation/Unistar. He has heard rumors that the date for the CRB is locked for June 17<sup>th</sup> and wants to confirm that information.

Additionally, this is an opportunity to underscore how important the loan guarantee funding in the supplemental is for our efforts to restart the domestic nuclear industry.

Finally, his staff indicated that he will also be interested in a readout from you on the spill response.

**Press: Closed**

### LOGISTICS (As of this writing, subject to change)

- TBD

### YOUR ROLE/CONTRIBUTION

- Update Hoyer on the spill response
- Let him know we are working very hard to complete the Unistar/Constellation deal.
- Communicate that it would be extraordinarily beneficial for our efforts to restart the nuclear industry for DOE to have the additional nuclear loan guarantee authority ASAP.
- Ask when he thinks Congress will finish the supplemental and if he thinks it will get across the finish line with the loan guarantee funds intact.

### PROGRAM NOTES

- As you recall, you spoke with Hoyer last week regarding Constellation and indicated we would have the CRB mid-June.
- He has heard that the CRB is scheduled and wants to confirm that rumored date of June 17<sup>th</sup>. On a staff level, we have indicated that while we are working toward some internal targets, nothing is confirmed.
- As you know, going to CRB before we receive the other nuclear funds would have a strong negative effect on NRG.
- There is pressure on the House side to move the Senate version of the supplemental (which does not include LGP funds) so that the oil spill funds can flow quickly.



- Constellation was just in France having further discussions with their partners, and
- Additionally, there is some dispute about this contractual issue regarding June 30<sup>th</sup>.
- While we believe there is no contractual requirement for DOE to act by June 30<sup>th</sup> in order for the deal to proceed, Unistar and EDF need to provide a parent guarantee by then.
- The deal does not collapse without DOE action at a date certain, but the company has conveyed the opposite to Hoyer.
- Below is a brief update from LGP:

#### Unistar/Constellation Project Update:

- The deal team verbally pre-briefed OMB and Treasury/FFB on the project on Tuesday, June 1 at 4pm.
- The deal team is actively working to prepare, and review with the LGP Credit Policy team, the Credit Package for OMB/Treasury, which will include the following:
  - Term Sheet
  - Financial Model
  - Credit Paper
  - Independent Engineer's Report
  - Market Study Report
  - Risk Rating Matrix
  - Recovery Matrix
  - Power Point Presentation
- Per S-1's request, the Credit Package is expected to be sent to OMB/Treasury/FFB by Friday, June 4.

#### ATTACHMENTS

1. Bio
2. Talking Points



**REPRESENTATIVE STENY H. HOYER (D MD-5)**  
Telephone Number: (202) 225-4131  
Room Number: 1705 Longworth



**House:** since 1981  
**Born:** June 14, 1939 in Manhattan,  
New York  
**Home:** Meachomsville  
**Education:** University of Maryland,  
B.S. 1963 (political science),  
Georgetown University, J.D. 1966  
**Profession:** Attorney  
**Religion:** Baptist  
**Family:** Widowed; three children

**COMMITTEES: (111<sup>th</sup> Congress)**  
Majority Leader

### POLITICAL HIGHLIGHTS

Maryland Senate, 1967-1979 (president, 1975-1979); sought Democratic nomination for lieutenant governor, 1978. Maryland Board of Higher Education, 1978-1981.

### DOE FACILITIES AND OTHER FUNDS IN REPRESENTATIVE HOYER'S DISTRICT

- ◆ There are no DOE facilities in Representative Hoyer's Congressional District; however, the Department's Germantown offices are in a nearby District.
- ◆ The Department of Energy estimates it will spend nearly \$108.8 million in Maryland in FY 2009, including \$20.0 million for fossil energy research and development and \$19.6 million for science.

### MARYLAND ENERGY INFORMATION

Maryland has few energy resources. Minor coal reserves are found in the Appalachian Mountains in western Maryland. Wind power potential is found in the Chesapeake Bay, off the Atlantic Coast, and in the Appalachian Mountains. The Susquehanna River is a potential source of hydroelectric power. Maryland's economy is not energy-intensive, and per capita energy consumption is low.

- ◆ One of five existing U.S. liquefied natural gas (LNG) import facilities is located in Cove Point, Maryland, and expansion planning is underway.
- ◆ Maryland produces small amounts of coal in the Appalachian Mountains in the western part of the State.
- ◆ Maryland requires motor gasoline blended with ethanol across the center of the State, including the Baltimore-Washington metropolitan area.
- ◆ The State's only nuclear plant, the dual-unit Calvert Cliffs facility, supplies all of Maryland's nuclear power and accounts for more than one-fourth of total electricity generation in the State.

**From:** Alok Mathur [REDACTED]  
**Sent:** Wednesday, March 23, 2011 11:34 PM (GMT)  
**To:** jravis@ [REDACTED]  
**Cc:** McCrea, Jim (CONTR) [REDACTED]; James C McCrea  
[REDACTED]  
**Subject:** Re: SR Tonopah

---

John and I have pretty thick skins (a necessary qualification in this business), but I have to agree with John.

Michael has a very arrogant attitude and has accused us of 'wasting his time', not being in touch with the 'market' for this type of financing (I did not know there was a market for 25 year project finance loans with a 37.5 basis spread), charging them fees for evaluating their credit, requiring farcical covenants, and other inflammatory statements. Mostly, we do not react but, on occasion, when he really starts getting emotional and thoroughly obnoxious, John and I have felt compelled to come back.

He treats the DOE with very little respect and seems to behave as if we are the applicant, beseeching him for the privilege of lending to his project, as opposed to the other way around.

He has taken this attitude because nobody (to-date) has told him where to get off and he is convinced that with Harry Reid's backing, he can get Jonathan to agree to anything. So, he keeps threatening the deal team. When he did that again today after berating our failure to understand the market, I told him to go ahead because we had reached a point of diminishing returns.

Alok

On Wed, Mar 23, 2011 at 7:17 PM, jravis [REDACTED] wrote:  
Jim,

Just to let you know, while we were discussing the EPC Contract issues with Solar Reserve, when we reached an impasse, their CFO Michael Whalen, threatened to go scorched earth on the DOE in the press about our uncommercial and unrealistic positions.

Best regards,

John

JOHN G. RAVIS  
Scully Capital

[REDACTED]



**From:** Schmitzer, David <[REDACTED]@hq.doe.gov>  
**Sent:** Thursday, September 24, 2009 7:05 PM (GMT)  
**To:** James C McCrea <[REDACTED]>  
**Subject:** RE: AREVA Update

---

excellent

-----Original Message-----

From: James C McCrea <[REDACTED]>  
Sent: Thursday, September 24, 2009 2:10 PM  
To: Colyar, Kelly; Brian Oakley; Renee Sass  
Cc: Schmitzer, David; Roger McDaniel; [REDACTED]  
Subject: AREVA Update

Kelly, Brian and Renee --

The origination team has discussed our call with Brian and Renee of earlier this week and concluded that we had a good kick off to the CP review of the AREVA transaction. Renee, your questions were excellent and focused on significant issues. We trust that you found, from our responses, that we are focused heavily on those issues as well as they really do get to the heart of the transaction.

Yesterday, we had another lengthy negotiating session with AREVA including outside counsel for both parties. At the end of that session, we are near final agreement on the term sheet. There is one outstanding point which needs to be checked more broadly within AREVA before they can respond. In the meantime, Milbank (DOE's counsel) is turning the term sheet to reflect the current state of negotiations. We have a significant open analytical issue that may ultimately affect the term sheet which is the treatment of tails (depleted uranium) disposal costs. We are awaiting additional information from AREVA on this before we can move ahead with our evaluation. The team does not yet have a complete working version of our credit paper as we are working on several major sections but we will forward a paper to you when it is complete albeit not necessarily finished.

In light of the current status, we (DOE) are all aiming for an October presentation to CC and CRB and AREVA will have the transaction as one of two major issues on the October Board meeting of AREVA, SA. I wanted to alert you to that schedule so that you can place a high priority on analyzing the AREVA transaction. Our modeling effort is well advanced but cannot be completed without the further work on the tails issue referenced above.

When we can provide you with a model, Roger will be available to walk you through it to explain the model and to provide the rationale for the base case and the various scenarios that we are using.

Do you all have the application materials that you need? If not or if you are not sure, give me a call and I can walk through what I have and send to you what you are missing.

Sam Shakir, President & CEO of AREVA Enrichment Services, the Sponsor, asked David again for the Credit Subsidy Cost indicating how critical it is for him to have this number for discussions within AREVA. They are very concerned that they do not have the number and the delay in receiving it from the DOE is increasing their concern that it will be so large as to jeopardize the transaction. I rode to the airport late last night with their counsel and he reiterated AREVA's concern to me. I know that things are tied up in OMB but did want to flag this issue and its importance. It will come up in October and this is a 1703 project

where the credit subsidy cost is borne by the applicant.

Given the size of this transaction (\$2B of loan guarantee), the political overlay, and recent experience with both CC and OMB, we are making every effort to button this transaction and the credit paper down as tightly as we can. As you review our work, we would appreciate any comments you can provide that will allow us to button it down even more tightly. The last thing we want is to be blindsided at CC or CRB when we could have addressed the issue in advance. Our objective, and it is a daunting one we know given past history, is to make it through CC on the first try and to make sure that you have what you need to support that objective.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC



**From:** Fridell, Monique [REDACTED]@hq.doe.gov>  
**Sent:** Wednesday, March 23, 2011 9:59 PM (GMT)  
**To:** 'jimccrea' [REDACTED]  
**Subject:** Re: Tonopah credit issues

---

I understand

I wouldn't want to proceed if you were not comfortable but I would hope we can find another way to get you there

Today I'm out of ideas

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**From:** Jim McCrea [REDACTED]  
**To:** Fridell, Monique  
**Sent:** Wed Mar 23 17:44:47 2011  
**Subject:** RE: Tonopah credit issues

Monique –

The other thing on which I need to be clear is that as a contractor and not a Fed, I don't get to make decisions but rather I only get to make recommendations to the Feds. I expect that there will be a discussion and there is no certainty that my recommendation will prevail.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]

---

**From:** Fridell, Monique [REDACTED]  
**Sent:** Wednesday, March 23, 2011 5:36 PM  
**To:** 'jim McCrea'  
**Subject:** RE: Tonopah credit issues

OK

---

**From:** jim McCrea [REDACTED]  
**Sent:** Wednesday, March 23, 2011 5:35 PM  
**To:** Fridell, Monique  
**Subject:** RE: Tonopah credit issues

Monique –

Actually, at a time like this, it is imperative that I send this note to the senior Federal team with my recommendation. My recommendation is to kill the transaction.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]

[REDACTED]

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**From:** Fridell, Monique [REDACTED]  
**Sent:** Wednesday, March 23, 2011 5:29 PM  
**To:** 'Jim McCrea'  
**Subject:** RE: Tonopah credit issues

Jim, I know you feel strongly about this, but I don't see the need to copy people who are not even involved in this transaction. Susan, Dong and Owen have not been involved in our discussions on the EPC subject, and frankly it is really up to you, John and Alok, not those three at this point.

We have been told yesterday and today that the keepwell is not going to be possible. So the bottom line is compromise or kill the deal, and that is really your and Jonathan's call. Personally I would hope we can find some middle ground.

Monique

---

**From:** jim McCrea [REDACTED]  
**Sent:** Wednesday, March 23, 2011 5:11 PM  
**To:** Silver, Jonathan; Barwell, Owen; Frantz, David; Richardson, Susan  
**Cc:** Fridell, Monique; Repetti, Ted; Alok Mathur; [REDACTED]; 'Brian Oakley'; Kim, Dong; 'Patrick Thomas'  
**Subject:** RE: Tonopah credit issues

Jonathan *et al.*

As Alok notes below, the applicant is not accepting our request for a keep well relating to the guarantor which is not the ultimate parent. Excerpted from below, what we asked for is:

The parent, Grupo ACS, shall provide a "keep well agreement" that basically provides for the following: (a) Grupo ACS recognizes the guarantee being provided by Industrial Services division for the obligations of CUSA; (b) Grupo ACS agrees not to take any actions that could deteriorate the credit of the Industrial Services division; and (c) Grupo ACS shall undertake all actions within its power to ensure that the net worth of the Industrial Services division does not deteriorate from its present position until the project has achieved the Continuous Performance Test for the Tonopah solar project in the US.

We believe that the ask on the keep well is reasonable since without the keep well on these terms, the EPC contractor parent could take actions that severely weaken or destroy the credit upon which the transaction would be based rendering the credit analysis meaningless. The EPC contractor has a very heavy exposure on this transaction and Credit's strong recommendation has always been an LOC securing the EPC contractor's obligations. However, Solar Reserve has offered an intermediate credit rather than an LOC. Based on review of that credit by the Credit team, we are willing to recommend acceptance of that credit (ACS Servicios Comunicaciones y Energia S.L) but only with a keep well as outlined above. In the absence of a keep well, Credit cannot evaluate the credit and accordingly, would strongly recommend against accepting that credit and equally strongly recommend requiring an LOC to support the significant obligations of the EPC contractor.

While the mechanism for distribution of the 1603 grant proceeds prior to full completion of the project remains to be negotiated upon development of an appropriate test (Issue #2 below), we are extremely concerned about the related party issues on this transaction (Issue #3 below). Solar Reserve has a contract related to the project construction for up to \$430MM plus on-going O&M obligations. Credit remains extremely concerned about the difficulties in determining whether, in this

case, the Solar reserve contractual arrangements approximate an arm's length and reasonable transaction.

Alok, John and I are available if there are questions.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

**From:** Alok Mathur [REDACTED]  
**Sent:** Wednesday, March 23, 2011 4:51 PM  
**To:** Jim McCrea  
**Cc:** John Ravis; Brian Oakley  
**Subject:** Re: Tonopah credit issues

Hi Jim:

John and I need to give you a quick 'heads up'. This is where we stand after a couple of rounds with Michael Whalen of SR:

1. On the EPC guarantor issue, we made absolutely no progress. SR and their lawyers claim that our request for a "keep well" from the parent is not justified, not market, and simply not deliverable. We have stated that we cannot accept the EPC guarantor without the "keep well". So, there is a standoff. They have told us that they will appeal to Jonathan (and, I suspect, Harry Reid), so you need to be prepared for that.
2. On the distribution of the cash grant and dividends during the CPM period, we told them that our technical team and the IE are looking at the issue to see if these can be released by passing a new test. SR wants to see if they can get the entire cash grant released after the test, but are flexible with regard to a deferral of dividends.
3. On the related party issue, they do not accept a different structure but will agree to full disclosure on costs, profits, etc. They will also look at any reps required by DOE.

We have decided not to release the draft Term Sheet, pending a satisfactory resolution to item 1 above.

You can call John or me, if you have a question or need more details of the interaction (which went on for several hours, in aggregate).

Best regards,

Alok

On Tue, Mar 22, 2011 at 1:40 PM, Alok Mathur [REDACTED] wrote:  
Couple of typos. See corrections in bold.

On Tue, Mar 22, 2011 at 1:33 PM, Alok Mathur [REDACTED] wrote:

Hi Brian:

John and I are facing 3 issues on the Tonopah solar project, for which we need a decision from Credit (prior to releasing a conditional Term Sheet). Here are the issues and the background:

### Issue #1: EPC Credit.

The Project will be built under a fixed-price, turn-key EPC contract from Cobra CSP USA (CUSA), a U.S.-based subsidiary of Cobra Thermosolar S.L. which builds thermosolar projects worldwide and is wholly-owned by Cobra Instalaciones y Servicios S.A. (CIS), which is responsible for industrial construction worldwide. The CUSA unit is being established to construct CSP projects in the US and Tonopah will be its first US project.

CIS has extensive experience in the construction and operation of CSP plants and it is a wholly-owned subsidiary of Cobra Gestion de Infraestructuras S.A. (CGI). CGI, in turn, is the largest operating company within ACS Servicios Comunicaciones y Energia S.L. (Industrial Services division) of Grupo Actividades de Construccion y Servicios S.A. (GACS), the parent company. GACS also has two other operating divisions.

Given the number of layers in the organization, we had required that the obligations of CUSA be guaranteed by the eventual parent, GACS. However, the applicant has informed us that the best they can offer is a guarantee from the Industrial Services division, which is one level below the parent holding level. Maquairie (the financial advisor to the sponsor) has performed an analysis of the Industrial Services division and has concluded that it is a BBB risk. Credit has reviewed this analysis and concurs with the rating.

We propose accepting the guarantee from the Industry Division because the parent has no real activities other than holding the 3 divisions, subject to the following conditions to be specified in the Term Sheet:

1. The financials of ACS Servicios Comunicaciones y Energia S.L shall be acceptable to DOE in its sole direction;
2. The parent, Grupo ACS, shall provide a "keep well agreement" that basically provides for the following: (a) Grupo ACS recognizes the guarantee being provided by Industrial Services division for the obligations of CUSA; (b) Grupo ACS agrees not to take any actions that could deteriorate the credit of the Industrial Services division; and (c) Grupo ACS shall undertake all actions within its power to ensure that the net worth of the Industrial Services division does not deteriorate from its present position until the project has achieved the Continuous Performance Test for the Tonopah solar project in the US.

Jim is aware of the issue and has been briefed, but we have not yet gotten a response from him.

### Issue #2: Restricted Payments during the CPM test.

This project has a pretty rigorous Provisional Acceptance test, following which, the contractor must operate the project over a continuous 12-month period at guaranteed levels before passing the Continuous Performance Measurement (CPM) test. The CPM test lasts for up to 36 months because of the 12-months period. However, during the CPM test, the EPC contractor must pay operating costs and debt service, to the extent the plant does not generate sufficient revenue.

We have restrictions on the release of the cash grant (and any potential dividends) until the CPM test has been met. Since this may not happen for 36 months after Provisional Acceptance, the sponsor is unable to raise the balance of the equity.

We are working with the IE and the Technical team to design an intermediate test to verify the adequacy of the project and, depending on how well it is met, we would release a portion or all of the cash grant and potential dividends. So, the Term Sheet would state that any release of cash would be contingent on an interim test to be defined later.

### Issue #3: Related Parties.

In the project, the sponsor, SolarReserve (SR) has multiple roles, including: sponsor and project developer, equity investor (10-15%), technology licensor (they purchased exclusive rights from Pratt & Whitney Rocketdyne (PWR, a subsidiary of United Technologies), equipment subcontractor (they have a subcontract that could be as large as \$430 million, with a back-to-back from PWR), and on-going maintenance support (also back-to-back with PWR). The latter two structures are because PWR can no longer license or manufacture CSP equipment, unless they go through SR.

We have so far told SR that this structure is not acceptable to DOE (given the recent experience with CVSR). SR has responded that changes are not possible and the discussion has been kicked upstairs to the Jim McCrean and Jonathan Silver level.

We suggest that we simply reinforce what we have already told SR. The present subcontract arrangement is not acceptable to DOE and they need to restructure along the following lines: (a) Technology license from SR directly to the EPC Contractor; (b) equipment supply and other services (such as engineering, O&M support, etc.) directly from PWR to the EPC Contractor, on the understanding that their technology license agreement will need to be amended to permit PWR to do this as an exception; and (c) any development services provided by SR (including prior development costs)

to be based on a direct services contract between SR and the Project Company. Right now, we have a structure that resembles scrambled eggs.

Here is what we need:

1. A decision on the above issues; and
2. The deal team has requested a half-hour conference call with Jim McCrea to explain our position and answer any related questions from origination, technical, and legal. We would like you to represent Jim.

Thanks,

Alok

**From:** James C McCrea [REDACTED]  
**Sent:** Wednesday, May 26, 2010 6:34 AM (GMT)  
**To:** 'Silver, Jonathan' [REDACTED]  
**Subject:** Revised Approach to OMB and Treasury

---

Jonathan –

It is an ugly situation in which we find ourselves and the program. Part of what makes it so bad is that we are trying unbelievably hard to control that which we cannot control or even influence. I think that you are on to something with your approach to CRB that we discussed today. To date, we have been scheduling the CRB as if it is something that we can control and schedule. We have been trying to work on a 2 week schedule between distribution of approval materials and CRB. That works as long as the 7th floor is ready to proceed with or without OMB and Treasury action which necessitates 1705 transactions. However, it appears that they are less willing to take this approach even with 1705 and if they require OMB/Treasury action, they must then accept that there are only limited steps that we (and they) can take to facilitate or drive OMB and Treasury action. Once you get to that point, then the only logical approach is to let OMB and Treasury schedule CRB rather than trying to schedule it from within DOE. It is elegantly simple and puts the responsibility where it rightly belongs. Our job then becomes one of doing everything that we can to facilitate OMB and Treasury action rather than driving toward a specific CRB schedule. Providing information and analysis is something at which we are particularly good. We should have no real issue keeping off the critical path if we are being responsive to the other two agencies. The distinction is subtle but extremely powerful and it might even take some tension out of the relationship with OMB and Treasury. By having us schedule CRB, it allows them to feel that it is our problem and not theirs. When they schedule, the problem, pressure, and focus shifts to them.

A couple of thoughts. We will need to set transaction priorities such as a preference that they focus on transaction B rather than transaction A and we will have to be disciplined enough to not juggle those priorities too frequently. An approach like this where OMB/Treasury schedules CRB will require us to be as responsive and detailed in the materials we provide them as possible. If we try to give short answers or to withhold the spoon feeding, it is all too easy for them to shift responsibility for delay back to us. I think that one of the key elements of making such a strategy work is that all parts of the strategy have to be synchronized. One of the most important parts of the synchronization is the expectations of the 7th floor and the White House. They can't demand production when we don't control the means of production and that is what they have been doing. The Hill is harder to deal with but we can't be committing to the Hill to do things that we cannot control as that sets up a classic case of over promising and under delivering rather than the more desirable reverse situation. We have spent a half year since your arrival trying to drive the system (other agencies) harder than it can be driven and it is reacting more and more negatively which has effectively shut us down in spite of the fact that our efforts to drive were a direct result of pressure from the 7<sup>th</sup> floor, White House and the Hill.

UniStar has surfaced with truly unfortunate timing as it will greatly exacerbate the problems that we are facing but perhaps that situation can be ameliorated by making it a very clear exception to a changed approach. If it is going to go through the process by mid June, it will have to displace activity at OMB and Treasury that would otherwise have been directed toward Abound, AES, First Wind and Beacon. That will be a test of the DOE's ability to set priorities as telling OMB and treasury that UniStar has to go through and the others as well will only insure that none go through.

The alternative is what we talked about the other day. Send everything over. Answer no questions and let them take out their concerns in elevated credit subsidy costs. That is effective in some areas but does nothing to improve the production speed of OMB and treasury. Worse than that, it gives them an excuse to go slow as we are the bad guys for dumping everything on them and making them figure it out. We end up getting the blame.

About the only thing that we can do is to smother OMB and Treasury with information and analysis in response to their questions and to do so with a smile and no attitude so that we can't get blamed for any delays in them scheduling CRB.

JM\_00076786



Jim

---

James C. McCrea

**JAMES McCREA & ASSOCIATES LLC**

██████████  
Wilton, CT 06897

Phone: (203) ██████████

Fax: (203) ██████████  
██████████

JM\_00076787

**From:** Silver, Jonathan [REDACTED]  
**Sent:** Friday, October 8, 2010 1:18 AM (GMT)  
**To:** 'jimmccrea' [REDACTED]  
**Subject:** Re: What You Were Told Before S1 Meeting

---

I'm sure it will...and that we risk billions on nuclear and are too slow and generally suck.  
The usual. :)

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

---

**From:** James C McCrea [REDACTED]  
**To:** Silver, Jonathan  
**Sent:** Thu Oct 07 21:10:31 2010  
**Subject:** RE: What You Were Told Before S1 Meeting

That I understood. My thought was that Solyndra might be a significant part of it or something on which they would hang their story. Sorry for being so cryptic that I did not make my point.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC

[REDACTED]

---

**From:** Silver, Jonathan [REDACTED]  
**Sent:** Thursday, October 07, 2010 9:02 PM  
**To:** 'jimmccrea' [REDACTED]  
**Subject:** Re: What You Were Told Before S1 Meeting

Brian ross of abc news wants to do an investigative piece about the loan program.

Jonathan Silver  
Executive Director  
Loan Programs  
U.S. Department of Energy

[REDACTED]

---

**From:** James C McCrea [REDACTED]  
**To:** Silver, Jonathan  
**Sent:** Thu Oct 07 20:28:43 2010  
**Subject:** What You Were Told Before S1 Meeting


Solyndra?

Jim

---

James C. McCrea

**JAMES McCREA & ASSOCIATES LLC**



**From:** Colyar, Kelly [REDACTED]  
**Sent:** Monday, September 21, 2009 9:58 PM (GMT)  
**To:** boakley [REDACTED]; jimmcree [REDACTED]  
**Subject:** Re: BrightSource Key Uncertainty

---

Just got out of CC. Fundamental questions... This may instigate a full reset.

---

**From:** Brian Oakley [REDACTED]  
**To:** jimmcree [REDACTED] <jimmcree [REDACTED]>; Colyar, Kelly  
**Sent:** Mon Sep 21 17:33:38 2009  
**Subject:** Re: BrightSource Key Uncertainty

Wow. Based on the line of inquiry we saw today, I really think we need to regroup on Brightsource. I walked to the elevator with Steve Spinner and he was very adamant about getting BrightSource in front of CC. They would have been created today.

Personally, I think Doug should focus on Phase 1 exclusively.

Brian Oakley  
Scully Capital  
[REDACTED]

---

**From:** James C McCrea  
**To:** 'Colyar, Kelly'; Brian Oakley  
**Sent:** Mon Sep 21 00:06:33 2009  
**Subject:** BrightSource Key Uncertainty

This transaction is predicated on a 20% equity contribution from an ITC cash grant from Treasury. Since that grant is not made until the project is in-service, it appears that the equity will be provided by a lender advancing against the expected grant. The paper is remarkably silent on the interplay between this lender and the DOE. I believe that this lender is *pari passu* with the DOE. Substantial additional understanding of the rights of the lender and any reduction of impact on the rights of the DOE is required. I would be inclined to add this as a significant project risk in the CP credit paper as it is a completely unknown world and for the life of me, I do not know how it fits within the Final Rule. Others may have a clear sense and perhaps the NOPR makes things clear but given the dollars involved. I suspect that the lender will have significant rights as they are unlikely to take completion risk without some level of control.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]  
[REDACTED]

**From:** sfisher [REDACTED]  
**Sent:** Wednesday, May 18, 2011 10:05 PM (GMT)  
**To:** Jim McCrea [REDACTED]  
**Cc:** 'c.reddy [REDACTED]  
**Subject:** FW: Next Framework Letter  
**Attach:** Next Summary Proposal (Draft May 18 2011) 1615.docx

---

I am happy to make the recommendation to Jonathan myself, but I do not believe this letter should be sent. I did participate in the preparation of it and did my best to insert caveats in it that try to limit its effect. I don't mind telling Next that there are going to be limitations placed on them and that there will be milestones and the like. I do not believe we should include volumes or working capital numbers in the letter nor should it include the loan tenors. These items can only be assessed after a thorough evaluation of the entire deal; there is no reason to provide them to Next at this juncture.

Since Mr. Doerr is visiting Jonathan next Tuesday, this is a good opportunity to answer any questions he has. In the meantime, if this is now a deal that is approved for analysis, we should do so and determine if it meets our risk criteria. To make representations to Next of any kind prior to such a review is premature and can only cause us problems in the future. Please call when you have a chance so we might discuss it further.  
Steve

Stephen Fisher  
Director  
Scully Capital Services  
[REDACTED]  
Washington, DC 20005  
[REDACTED]

-----Original Message-----

**From:** Seward, Lachlan [REDACTED]  
**Sent:** Wednesday, May 18, 2011 5:28 PM  
**To:** Silver, Jonathan  
**Cc:** Frantz, David; Gerbsman, Jason; Hodges, Sven; Trudel, Justin; 'Baur, Melissa (Montie)'; sfisher [REDACTED]; 'Christian Reddy [REDACTED]; McCrea, Jim (CONTR)  
**Subject:** Next Framework Letter

Jonathan,

Here for your review is the latest draft version of the letter to Next as developed by the team, including Credit.

Lach

**From:** sfisher [REDACTED]  
**Sent:** Wednesday, May 18, 2011 8:19 PM (GMT)  
**To:** Jim McCreath [REDACTED]  
**Cc:** 'c.reddy' [REDACTED]  
**Subject:** Next Framework Letter

---

Watch for a draft of the letter (Silver to Ligocki) coming later this afternoon. The working group (Lach, Melissa, David, Sven, Jason, Chris and I) wants to send it to Jonathan later today. We had some input into it. It is a strange letter that talks about volumes, and milestones, and all sorts of things. We got them to include a caveat up front that says this is all subject to further internal review and discussion. Once we got that, the rest of the comments were less important. It does make you wonder why we are putting all this in a letter to them. It is a very strange process change for no good reason other than communicating with the Kleiner Perkins benefactors. I would encourage you to advise Jonathan not to send it regardless of the caveats.

sdf

**From:** sfisher [REDACTED]  
**Sent:** Wednesday, May 18, 2011 12:47 AM (GMT)  
**To:** Jim McCrea [REDACTED]  
**Cc:** boakley [REDACTED]  
**Subject:** Update

---

Severstal – Justin tried to write a model to answer Jay Hoffman’s questions, but it came up short. It also pointed out that the previous stress case models probably modeled a greater EBITDA degradation than was called for by the revenue drop; evidence is the 2010 actual and 2011 plan. It may take some time, but we called in ATK and GT to develop a better sensitivity model that would allow the user to change variables and see the effect (on DSCR in Jay’s case). Meanwhile this evening Jason sent out a redraft of the slide presentation; I have not reviewed it yet.

Next – ATK and GT are preparing a summary of changes in the Next plans for me. GT has already sent a new model which teeters around NPV zero. Situation normal. I have a list of questions on Next including: Tech review of new proposal (Jason says it is not required), 2 models generates more inventory, new milestones, longer more expensive development, more spares, etc. These are offset by a 50% higher demand level (150K/year) and a faster ramp up. We will look for answers. Meanwhile we understand John Doerr is visiting Jonathan next Tuesday. Sven is doing a letter.

Enerdel – No word. We are doing a set of high level questions to open a discussion.

Dow Kokam – Quiet

Steve  
Stephen Fisher  
Director  
Scully Capital Services  
[REDACTED]  
Washington, DC 20005  
[REDACTED]

**From:** McCrea, Jim (CONTR) [REDACTED]  
**Sent:** Wednesday, May 18, 2011 12:04 AM (GMT)  
**To:** jimccrea [REDACTED]  
**Subject:** FW: FYI on Next

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-----  
From: Hodges, Sven  
Sent: Tuesday, May 17, 2011 8:03:46 PM  
To: Gerbsman, Jason; 'Melissa Baur' [REDACTED];  
'Daron Gifford' [REDACTED]; 'sfisher' [REDACTED];  
McCrea, Jim (CONTR); Trudel, Justin; Frantz, David; Seward, Lachlan  
Subject: RE: FYI on Next  
Auto forwarded by a Rule

J, I will get you language for the letter first thing in the am.

-----Original Message-----

From: Gerbsman, Jason  
Sent: Tuesday, May 17, 2011 12:34 PM  
To: 'Melissa Baur' [REDACTED]; 'Daron Gifford' [REDACTED]; 'sfisher' [REDACTED]; McCrea, Jim (CONTR); Hodges, Sven;  
Trudel, Justin; Frantz, David; Seward, Lachlan  
Subject: FYI on Next

Just so you are all aware, Jonathan has scheduled a meeting with John Doerr for next Tuesday, the 24th. I will let you know more as I hear updates.

Jason

Jason H. Gerbsman  
ATVM Loan Program  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

[REDACTED]

[www.lpo.energy.gov](http://www.lpo.energy.gov)

JM\_00475678



**From:** sfisher [REDACTED]  
**Sent:** Monday, May 16, 2011 1:58 PM (GMT)  
**To:** Jim McCrea [REDACTED]  
**Cc:** 'c.reddy [REDACTED], boakley [REDACTED]  
**Subject:** ATVM

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- Jonathan wants a letter back to Next, draft by Wednesday, that gives them the parameters of a deal. John Doerr buttonholed him over the weekend. JS wants Credit involved prior to the letter coming to him. I may have told you Jason sent me a copy of a new model and a draft LOI that Melissa wrote that really did nothing but limit the parameters of the analysis we would do – not signing that! He provided no info on the new deal although we understood it slipped 5 months and had a new model in it. I will ask Jason to provide additional info; although he is under the Severstal gun as well. Chris is going to get involved here as a fresh set of eyes.
- Frantz met with Owen last Friday and apparently have more info on what he wants on Severstal. Dave said he would get with Jason and tell him this morning. I cautioned in the meeting that the questions need to be documented coming out of Credit Committee. Owen first offered has email (that I sent you) as that, but the team encouraged more. I don't know who the secretary of Credit Committee is, but a "remand" needs documentation lest it later be construed to be something it was not. You may want to encourage Owen in the right direction since you were present as the Credit officer.
- Edward talked briefly of the ENER1 problems. He sort of dismissed them as not being a big deal, but they really are a very big deal.
- Dow Kokam is still grinding around – they keep saying management is coming around.

Steve  
Stephen Fisher  
Director  
Scully Capital Services  
[REDACTED]  
Washington, DC 20005  
[REDACTED]

**From:** James C McCrea <jimmccrea [REDACTED]>  
**Sent:** Wednesday, January 20, 2010 3:53 AM (GMT)  
**To:** 'Sandra Claghorn' [REDACTED]  
**Subject:** RE: Need Help

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She was indeed pleased. Hopefully, with a bunch of things going her way from CP – Sage, FW CC, taking her to OMB and a restarting of the CSC estimating process that had been jammed up since August (Calvert Cliffs) she and her colleagues may begin to see that we are all in the same boat and it goes in a straighter direction if we quit fighting and start rowing!!!!

David Frantz tells me that the BrightSource team was extremely pleased with the update on the transaction that I presented to CC.

Talked with Lach late today and he was extremely pleased with the new approach and also extremely pleased with what CP brought to this transaction and the Credit Committee discussion.

Thank you for getting it to the point where I could cover for you. Teamwork!!!!!! If you had not pulled it together so well, handling the transaction would have been a lot more difficult for me especially since I am simultaneously immersed in BrightSource and keep getting pulled into Jonathan's WH problems.

Jim

---

James C. McCrea  
JAMES McCREA & ASSOCIATES LLC  
[REDACTED]  
Wilton, CT 06897  
[REDACTED]

---

**From:** Sandra Claghorn [REDACTED]  
**Sent:** Tuesday, January 19, 2010 10:41 PM  
**To:** Jim McCrea  
**Subject:** RE: Need Help

Wow! Record time.

Monique must be thrilled.

Thank you again for covering for me today.

S

Sandra Claghorn  
TMS Consultant - LGPO  
Credit Policy  
[REDACTED]

> To: sandra.claghorn [REDACTED]  
> Subject: Re: Need Help  
> From: jimccrea [REDACTED]  
> Date: Wed, 20 Jan 2010 01:29:52 +0000

>  
> BTW, congrats. CC approved  
> -----Original Message-----  
> From: Sandy Claghorn  
> To: Jim C McCrea  
> Subject: Re: Need Help  
> Sent: Jan 19, 2010 8:27 PM

>  
> Unfortunately, I am no help to you on this. I'm sure Renee could help with the market info and Roger and Brian could help with DOE specifics. I am useless on either.

>  
> Sandy  
> Sent from my Verizon Wireless BlackBerry

>  
> -----Original Message-----  
> From: James C McCrea [REDACTED]  
> Date: Wed, 20 Jan 2010 00:16:40  
> To: <rogermcdaniel [REDACTED]>; < [REDACTED]>; <boakley [REDACTED]>;  
<sandra.claghorn [REDACTED]>; <reneeass [REDACTED]>;  
> Subject: Need Help

>  
> Jonathan has asked for any help that we can give him on the following questions that are required to be included in a briefing that is being prepared for WH use. Please put together any thoughts ASAP and circulate them to this group. We will consolidate and get them to Jonathan. This evening or tomorrow morning would be extremely helpful and the earlier the better because it goes into a larger presentation that he needs to wrap up by the end of the day tomorrow.

>  
> Market Overview

>  
> (1) What is the expected capital investment in the energy sub-sectors relevant to the DOE loan programs? What fraction of investment could DOE support?

>  
> (2) What is the current state of the credit market for energy projects? What firms provide financing for new energy projects? What is the ongoing interaction with private actors in industry?

>  
> (3) What characteristics of energy projects and/or energy and credit markets necessitate the DOE loan programs? Are these characteristics temporary or expected to persist?

>  
> (4) What is the implicit subsidy of the loan guarantee program, in conjunction with other government support (e.g., tax credits, grants), for new energy projects? For example, what is the cents per kWh in aggregate subsidy for new wind or solar farms that could be supported by 1705?

>  
>  
>  
>  
> Jim

---

> James C. McCrea  
> JAMES MCCREA & ASSOCIATES LLC  
> [REDACTED]  
> Wilton, CT 06897

>  
> [REDACTED]  
> jimccrea [REDACTED]  
>

>  
>  
> Sent via BlackBerry by AT&T

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**From:** Joshua Bar-Lev  
**Sent:** Saturday, March 05, 2011 12:57 AM  
**To:** Gabe Horwitz; Steve McBee; John Mulligan  
**Cc:** Arthur Haubenstock; Jack Jenkins-Stark; Natalie Schaefer; Dan Judge  
**Subject:** FW: Outline for DOE presentation -- 110304.docx

- The attached Outline will be filled in as talking points to be used by the political team. Over the weekend, Arthur, Jack and the deal team coming into DC Monday.
- Additional Litigation pieces/summaries will be provided by Arthur and the Perkins firm, since DOE team has asked for specific info. Then we need to summarize it and insert as several talking points in the Outline
- Meetings at the highest level possible should be arranged for Tuesday/Wednesday with our champions. We will need you to schedule. You should work with Arthur on appropriate mtgs with DOI (like Steve Black) etc. Woolard coming in the following week. JW Will want meetings that week with the VP, Reid, Chu, Feinstein and other principles.
- Once Bernie Toon inculcated (shortly), you guys need to fold him in to the arguments, roles and get him the litigation and other info.
- JW just now heard from Gov's asst Picker that Governor wants to talk with JW. That is happening now or shortly. Governor wants to express, as Gov and as former AG, "STRONG STATE INTEREST" in 1) fighting these kinds of suits and 2) getting these projects done. \$20 Billion in fast track Calif projects are at stake; over 10,000 direct jobs. RPS cannot be met, a key state goal. Will call Chu and may want to call President and VP. [this just happened - SWEET]

Other actions? Lets fill in over the weekend. Lets coordinate action items you all undertake and Bernie undertakes, with our team. Thoughts??? Joshua

---

**From:** Dan Judge  
**Sent:** Friday, March 04, 2011 4:26 PM  
**To:** Natalie Schaefer; Arthur Haubenstock; Joshua Bar-Lev; John Mulligan; John Woolard; Jack Jenkins-Stark; Umanoff, Adam  
**Subject:** Outline for DOE presentation -- 110304.docx

Folks -- OK, here's the quick data dump. Any further details around these topics would be much appreciated. I'm not going to be home tonight, so it will likely be Saturday late afternoon before I get something more comprehensive out. If particular people could focus on the following bullets, as shown below, that would be best:

- BSE Cash Situation -- Jack
- Impact of Project Funding Stop -- Natalie/Adam
- Impact of Project Failure on DOE -- All
- Impact of Project Failure on Other Federal Stakeholders -- John M, Joshua, Arthur, Adam, Natalie
- Impact of Project Failure on Other Participants -- Joshua, Natalie

- Impact of Project Failure on BrightSource – Jack
- Impact of Project/Company Failure on Industry – Joshua,

I don't mean to discourage anybody from adding anything, on anything! Thanks, folks.

Dan

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<<      Outline for DOE presentation -- 110304.docx  (13.6KB)
      [13.6KB]
>>
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**From:** John Bryson [REDACTED]  
**Sent:** Sunday, March 13, 2011 2:35 PM  
**To:** John Woolard  
**Cc:** Crane, David  
**Subject:** Re: FW: Senator Mary Landrieu

John and David,

With regrets, I have a conflicting commitment here in California on April 11 and cannot join the David's dinner that evening. (I am joining Ted Craver for a small dinner with Dianne Feinstein in the next two weeks, and we will certainly talk energy policy with her at the time.)

David, I would be happy to learn more of the idea you are developing which John touches on in the second paragraph below. It will be a little hard to reach me during the first three days of the coming week--I fly early tomorrow to NYC and am then in meetings there, followed by a very full Wednesday back here. But I could talk either on Thursday or Friday of next week. My suggestion is that you have your assistant call my office and set up a mutually good time with my executive assistant at the number which John set out below. It would be a pleasure to catch up after not seeing you for some time.

John

**From:** "John Woolard" [REDACTED]  
**To:** "Crane, David" [REDACTED], "John Bryson"  
[REDACTED]  
**Date:** 03/11/2011 06:41 PM  
**Subject:** FW: Senator Mary Landrieu

John - David Crane at NRG is hosting a small dinner at his house in Princeton, NJ on April 11th for Senator Landrieu. See below; it will be a small gathering of CEOs for a more intimate discussion around energy policy. I am unable to attend as I am hoping to actually close Ivanpah and be on vacation with my family that week. I suggested you might be interested in attending if it fits your schedule. Please let David know directly if you are able to attend.

Separately, I wanted to connect the two of you to discuss a rather interesting project that David is working on that involves the intersection of "iconic businesses" and renewable energy. As David and I talked, Disney would be an excellent fit with the strategy that David is developing, and I thought the two of you should connect for a brief discussion. I will leave it to the two of you to connect on both issues. Regards, John

John Woolard / President, CEO / BrightSource Energy / [REDACTED], Oakland, CA 94612  
/ [REDACTED] / [REDACTED]

[REDACTED] - David's number  
[REDACTED] - John's number

From: David Crane [REDACTED]  
Sent: Wednesday, March 02, 2011 1:51 PM  
To: John Woolard  
Cc: jknk [REDACTED]  
Subject: Senator Mary Landrieu

Dear John:

It was a pleasure speaking with you today.

With the price of oil triggering escalation of gasoline prices towards \$4/gallon and continued unrest in and around the oil-producing nations of the Middle East, it is good to know that you share my expectation that Congress may react to geopolitical circumstances by considering and potentially passing energy legislation. Motivated by a desire to show their responsiveness to the American voting public, they may act with haste even before the end of their Summer Session.

The big issue to us is how Congress might act as history tells us that the range of outcomes from energy legislation passed during or in the immediate aftermath of energy "crises" ranges from substantial good to immense harm. Whether Congress focuses on promoting electric and other alternative fuels vehicles, changing the rules around the strategic petroleum reserve, enacting a federal renewable or clean energy portfolio standard or a host of other potential incentives or disincentives for favored or disfavored fuel sources, there is a great deal at stake and everyone in the energy industry needs to ensure that key legislators are as well informed as possible.

Toward that end, my wife Isabella and I have invited her fellow Louisianan, U.S. Senator Mary Landrieu to be our guest for a very small fundraising dinner at our home in Princeton, NJ on Monday, April 11th. Senator Landrieu, as you know, is one of the most knowledgeable and passionate members of the Senate when it comes to issues of energy and energy independence. Moreover, from her position as a subcommittee chairman and senior member of both the Senate Energy Committee and the Senate Appropriations Committee, she plays a critical role in shaping energy legislation in the formative stages.

Rather than the 'normal' private fundraiser involving 50-100 guests, prepared remarks by the guest and very limited opportunity for interaction or in depth discussion, we are shooting for a more intimate 10-12 person dinner involving CEO or CEO-level executives from across the energy sector: oil and gas, electric and other alternative energy vehicles, renewables (particularly, solar) and nuclear. The formal invitation is attached. I know that it is difficult for you to attend personally but it would be great if you and Brightsource were suitably represented.

If you have any questions, please do not hesitate to contact me or my colleague John O'Brien.

Sincerely,

David Crane  
[attachment "Senator Landrieu 04-11-11.pdf" deleted by John Bryson/SCE/EIX]



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**From:** John Woolard  
**Sent:** Wednesday, January 27, 2010 5:42 PM  
**To:** Keely Wachs; Dan Judge; Jack Jenkins-Stark; 'Steve McBea'  
**Subject:** FW: Correction regarding BrightSource Story

Separate calls with Silver and Spinner – emails from Stephan to both of them – both Silver and Spinner think we are fine  
- JW

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**From:** Stephan Dolezalek [REDACTED]  
**Sent:** Wednesday, January 27, 2010 9:38 AM  
**To:** [steve.spinner@\[REDACTED\]](mailto:steve.spinner@[REDACTED]); John Woolard  
**Cc:** Alan Salzman  
**Subject:** Correction regarding BrightSource Story

I wanted to definitively correct the story that appeared today in a private online subscription magazine called "merger market;" in which Bobby Kennedy is quoted as saying it is about to exit its investment in BrightSource. To be clear, VantagePoint has absolutely no such intentions. In fact, we have committed and are about to close on a substantial additional round of financing for BrightSource which is being led by our Firm. The completion of that financing is only conditioned on the DOE loan guarantee approval coming through. We are a very strong believer in the Company and its technology and very much intend to continue to support it as its largest stockholder.

It is quite likely that Mr. Kennedy was misquoted; inasmuch as he is aware that BrightSource has been actively approached about financing major BrightSource installations in other parts of the world and we have had to engage in conversations about the possibility of obtaining financing for such alternatives as the DOE loan process has dragged on. However, inasmuch as it now appears that we are nearing the completion of the DOE process, both VantagePoint and the Company are entirely focused on moving forward with the projects in Ivanpah, California.

**J. Stephan Dolezalek**  
Managing Director/CleanTech Group Head  
**VantagePoint Venture Partners**  
[REDACTED]  
San Bruno, CA 94066  
[REDACTED]  
[sd@\[REDACTED\]](mailto:sd@[REDACTED])

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**From:** John Woolard  
**Sent:** Tuesday, September 29, 2009 2:42 AM  
**To:** 'sanjay.wagin' [REDACTED]  
**Subject:** Steve Chu email?

Sanjay - I need to send a note to Matt R and the Secretary about our situation and my only email for Dr Chu is his old lbnl address. Can you please send his new email?

Related to this, will likely be in DC again this week if you can free up for a beer (or am coffee)? JW

---

**From:** Natalie Schaefer  
**Sent:** Wednesday, April 27, 2011 5:07 PM  
**To:** Kenneth Cestran [REDACTED]  
**Subject:** BO Opinion/Tortoise Moving Issue

Ken – here are some “talking points” at your request. Apologies, I meant to send this earlier and it got stuck in my outbox. Sticking here with the key message, but let me know if you would like more information in addition to what we discussed.

**Background:**

- Ivanpah is the largest solar electric generation facility under construction in the world. DOE is providing the \$1.6 billion loan guarantee, and NRG and Google are providing over \$450 million of private sector equity investment.
- We currently have over 400 construction union labor on site, and plan to increase that to over 700 union labor by Q3 and over 1,200 within a year.
- The Ivanpah schedule is at risk due to a) agencies' delay in completing an amended biology review (called a "Biological Opinion") that BrightSource requested in January, and b) the agencies' recent and unexpected change in interpretation of the existing Biological Opinion.
- Ivanpah has been known to have a small population of desert tortoise, a threatened but not endangered species. Initial work on site indicates that somewhat more desert tortoise may exist onsite, raising the density from a very low level, below the range that the US Fish & Wildlife Service considers "typical" for the 9 million acres inhabited by the tortoise, to a level, assuming the highest projected value, that is slightly above the typical density. By comparison, more than 10 times the tortoise density is found in portions of the Desert Wildlife Management Area less than five miles away.
- An amended Biological Opinion and a Notice to Proceed is needed from US Fish & Wildlife and BLM, respectively, by May 12. That date is mandatory in order to make sure the project can move forward and continue to meet its planned schedule since desert tortoise cannot be relocated safely away from construction during the summer months.

**Below is just a "suggestion":**

**We would suggest Jonathan Silver call Steve Black and possibly Secretary Chu call Sec. Salazar** – Provide update/briefing; encourage Secretary to ensure prioritization and resources deployed for rapid completion of Biological Opinion. Every day it is delayed puts the DOE funding, private sector funding commitment, and 1200 union construction jobs at dramatically increased risk.

Let me know if there is anything else you need, look forward to hearing from you

Nat

**Jonathan Silver**

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**From:** Peter O'Rourke [REDACTED]  
**Sent:** Thursday, June 16, 2011 9:40 PM  
**To:** Jonathan [REDACTED]  
**Cc:** Matt Winters  
**Subject:** Re:

Yeah, even more so given that Geitner actually chimed in. Kind of nuts that Chu defeated Treas Sec, OMB head, and NEC head.

Thanks very much to both of you for all the time you put into getting this through the gauntlet. I know your plates are very full, so your time is appreciated by all of the deal team.

peter

On Thu, Jun 16, 2011 at 8:28 PM, Jonathan Silver <[REDACTED]> wrote:  
Chu is right not to gloat publicly, but, the full deal going forward minus a year, is a close to an annihilation of the economic team's position as you could actually possibly hope for. Its actually dailey giving them a fig leaf. Think about it.  
Let's do some serious gloating when I get back.  
Total victory.

Jonathan Silver  
[REDACTED]

Evans, Denise

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**From:** Shikany, Ann [mailto:ashikany@hq.doe.gov] on behalf of Silver, Jonathan [mailto:jsilver@hq.doe.gov]  
**Sent:** Friday, June 24, 2011 1:17 PM  
**To:** 'Jonathan [mailto:jsilver@hq.doe.gov]'  
**Subject:** FW: Draft LPO slides for POTUS meeting

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**From:** Hurlbut, Brandon  
**Sent:** Friday, June 24, 2011 12:14 PM  
**To:** SCHU  
**Cc:** Adams, Ian; Poneman, Daniel; Winters, Matthew; Carlson, Jaime; Silver, Jonathan; Navin, Jeff  
**Subject:** Re: Draft LPO slides for POTUS meeting

I am in a CRB for the next half hour - they need me for quorum - I will call you when this meeting ends.

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**From:** SCHU  
**To:** Hurlbut, Brandon  
**Cc:** Adams, Ian; Poneman, Daniel; Winters, Matthew; Carlson, Jaime; Silver, Jonathan; Navin, Jeff  
**Sent:** Fri Jun 24 12:08:21 2011  
**Subject:** RE: Draft LPO slides for POTUS meeting

Brandon,

This is missing important information: what could have been improved, why did the loans take so long, and why was there so much interagency angst. Below is the "blunt, truthful" version.

**We need to tell the President the truth, as we see it. We need to also present the other side's point of view as fairly as possible.**

- 1) Treasury, and often OMB felt that the all the allowed subsidies, when added together, permitted to loan applicants too large a ROI. ("Unjust enrichment"). We could not agree on even the underlying assumptions of how much a subsidy was worth. Give one example of a deal that we could not agree on and the particulars of that deal.
- 2) Many times, they felt that a "better deal" could have been brokered by DOE and asked us to re-negotiate.
- 3) I heard that OMB assigned very few people to review the loans. Would they acknowledge that?
- 4) Throughout the loan program, DOE was asked to respond to multiple inquiries on virtually all loans, amounting to thousands of pages of questions. Many times they specifically refused to have in-person briefings.
- 5) Other agencies would sometimes argue that a particular loan is "not in the spirit of the Recovery Act"
- 6) Principles in OMB and especially Treasury would often times rely on lower level staffers – e.g. acting deputy assistant secretary – and back them without understanding the details of the loan. The staffers would cite numerous initial objections, and as we explained the loan, their objections shifted to other reasons. Throughout the process, they believed that were taking "principled stands."

12/2/2011

7)

Steven Chu  
Department of Energy

**From:** Hurlbut, Brandon

**Sent:** Friday, June 24, 2011 11:35 AM

**To:** SCHU

**Cc:** Adams, Ian; Poneman, Daniel; Winters, Matthew; Carlson, Jaime; Silver, Jonathan; Navin, Jeff

**Subject:** Draft LPO slides for POTUS meeting

Attached are the draft slides for the daily economic briefing with the President on Monday where you will discuss the status of LPO. The WH was very direct about what should be included in the slides so we don't have much flexibility. They want:

- 3 slides that describe the status of the program and explain why the President hears so much about it. The President actually hears about it because at official events and political events he interacts with business community and Congressional members - many of them have some affiliation or interest in the numerous applications we have received that involve substantial funds. As a result, the President has likely heard a wide range of feedback on the program and wants to know its status.
- 1 slide on status of Cape Wind (because he has heard from Gov. Patrick a few times - they are close friends)
- 1 slide on USEC (I think Gov. Kasich brought it up when he golfed with the President last weekend).

During the meeting, you will have an opportunity to verbally raise CEDA and any other thoughts on clean energy finance. You have a lengthy pre-brief scheduled on Monday morning to discuss that aspect of the meeting.

Please let us know what you think - the WH has asked that we send a draft early afternoon so they can review and make any necessary changes to get in the President's book for the weekend.

Brandon Hurlbut  
Department of Energy

12/2/2011

[Peter O'Rourke <morourke@gmail.com>](#)**FW: AMP Powerpoint Presentation**

4 messages

**boakley** [REDACTED] Mon, May 2, 2011 at 11:34 AM  
To: "Heman Cortes" [REDACTED], "O'Rourke, Peter" [REDACTED]  
Cc: "jim McCrea" [REDACTED] <[REDACTED]@hq.doe.gov>, [REDACTED] <[REDACTED]@hq.doe.gov>

Heman & Peter,

Please see Jim's comments below. Let's discuss once I have the PPT distributed.

Regards,

Brian

Brian Oakley

*Principal*

Scully Capital Services, Inc.



[www.scullycapital.com](http://www.scullycapital.com)



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PO\_01044

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**From:** jim McCrea [mailto: [REDACTED]]  
**Sent:** Sunday, May 01, 2011 8:11 PM  
**To:** 'Bowen II, Robert (CONTR)'  
**Cc:** bwalley [REDACTED]  
**Subject:** RE: AMP Powerpoint Presentation

As I said, the credit paper is both dense and superficial. I think that the transaction is going to have an especially difficult time in the interagency process. Here are my big points:

- There is absolutely no basis for the selected size of the transaction. It is stated and never questioned or justified. There is nothing in the paper that answers to question of why not 200MW for example so this really looks like it is banking the greatest amount of Federal dollars for a 5 year financing program.
- There is no justification of why this is needed at all. Prologis is installing solar systems without the program and little that speaks to why this is a good use of Federal dollars except one spot where it talks of the discount due to cheap financing, a topic that does not resonate in the interagency process.
- Based on new phases being added as long as the resulting Average DSCR for the Project is 1.10x, I really do not see this as a BB transaction. With that provision, I would rate it at no more than a B or maybe a CCC. They can severely downgrade the credit and I think that we need to score it on the presumption that the average gets pulled down to 1.10X. To be a BB, they need to be under a requirement to maintain the going in average DSCR.
- Prologis has been at this since 2008 and only has 50MW in operation or under construction at 40 sites. This gives no support at all that they need a program that has a capacity of 733MW. In fact, their experience level totally undercuts the need for a program of this size. I would expect this to get cut back enormously in the interagency process. It is simply way too big and is banking financing for future activity. If I were in the interagency process, I would cut this back to 100MW which is 4X what they have done and more than 6.5X what they have identified and are ready to build. 15.4/733 is 2.1%. That is a devastating number. To support this large a program, they should have multiple phases nearly ready to proceed with PPAs in near final form.
- At the size it is proposed, this will consume significant credit subsidy cost that is not commensurate with the demonstrated need.
- Responding to RFPs is not credible for things in the pipeline as there is no sense of what their RFP bid success rate will be.
- There will be significant self-dealing questions re Prologis and its roles on the EPC side and as the receiver of rooftop rents.
- Expect to get heavily bogged down in a discussion of the extent of foreign panels and the lack of anything in the paper that speaks to best efforts to buy American.
- In the business strategy and RPS discussion, there is no sense of how much of the required capacity is spoken for by other projects and how much capacity is really available for these guys. Also, what happens if a European-like oversupply capacity develops and RPS gets cut back.
- There is absolutely nothing in the paper to put these guys in context compared to other rooftop developers. What else is going on? How do these guys compare? Can they be undercut by others? Why won't Prologis have a fiduciary responsibility in its REIT to go with the most competitive rooftop developers rather than its own captive and if the only thing that makes them competitive is cheap financing, that will be an issue. There is nothing in the paper that suggests that Prologis is especially



good at this game.

- There is no support at all for them being able to do a 733MW program in 5 years. Exhibit 8.9 is flat out unacceptable. Minimum builds of zero until July 2013 really casts doubt on what they are up to and if that is all they will commit to, then it really makes the projected advances look suspect.
- EPC does not seem to mention Davis Bacon while O&M does.
- The Fitch weaknesses don't all seem to have been addressed. Expect some heavy questioning about them.

Overall: transaction is certainly not a BB credit and is way too big for the identified need. It commits way too may Federal resources for way too long without any certainty that there is a project that can get built out.

Paper needs a heavy proofing as it is chock full of typos.

I am available this evening if you want to discuss.

Jim

---

James C. McCrea

JAMES McCREA & ASSOCIATES LLC

-----Original Message-----

From: Bowen II, Robert (CONTR) [REDACTED]

Sent: Sunday, May 01, 2011 6:32 PM

To: jimccrea [REDACTED]

Cc: boakley [REDACTED]

Subject: AMP Powerpoint Presentation

Hope all is well and you got out and enjoyed some of this fine day beyond fixing the tire.

We just got off the phone with the team on the things that need to be done on this and will likely have a relatively

PO\_01046

close to final draft in the AM around 10:30 or 11:00. There is a tag-up on AMP at 1130 with Jonathon and Brian and I thought it would be good to show him the Powerpoint to get his general comments to avoid a repeat of Fotowatio where as I understand it he had comments that were quite significant and needed to be addressed at warp speed. Problem with this is that it doesn't give you a chance to read before he is seeing it so wanted to see if you were ok with the approach. Otherwise I think we will need to change the time of the tag-up and we don't know his schedule. Additionally I am not sure if you are traveling tomorrow which is also an important input. We don't want to jam you too much so let us know.

Rob

---

Peter O'Rourke <[REDACTED]>  
To: Morgan Wright [REDACTED]

Mon, May 2, 2011 at 12:32 PM

It's started. Can you deal with this with Jonathan. It is not dense or superficial.

Peter O'Rourke

Begin forwarded message:

From: "boakley [REDACTED]"  
Date: May 2, 2011 18:34:36 GMT+03:00  
To: "Hernan Cortes [REDACTED]", "O'Rourke, Peter [REDACTED]"  
[REDACTED]  
Cc: "jim McCrea [REDACTED]"  
[REDACTED]  
Subject: FW: AMP Powerpoint Presentation

[Quoted text hidden]

---

Peter O'Rourke <[REDACTED]>  
To: "boakley [REDACTED]"  
Cc: "Hernan Cortes [REDACTED]"  
[REDACTED], "jim McCrea [REDACTED]"  
[REDACTED]

Mon, May 2, 2011 at 12:42 PM

I will read the comments and provide my thoughts.

Peter O'Rourke

On May 2, 2011, at 18:34, "boakley [REDACTED]" wrote:

Hernan & Peter,

Please see Jim's comments below. Let's discuss once I have the PPT distributed.

Regards,

Brian

PO\_01047

Brian Oakley

*Principal*

**Scully Capital Services, Inc.**



<image001.jpg>

[Quoted text hidden]

[Quoted text hidden]

---

**Peter O'Rourke** <[REDACTED]>

Mon, May 2, 2011 at 12:45 PM

To: rmbowen [REDACTED]

Cc: "Hernan Cortes" [REDACTED]

... Although I guess it's a feat to be both dense and superficial. One would presume they are somewhat contradictory.

Peter O'Rourke

On May 2, 2011, at 18:34, "boakley [REDACTED]" wrote:

Hernan & Peter,

Please see Jim's comments below. Let's discuss once I have the PPT distributed.

Regards,

Brian

Brian Oakley

*Principal*

PO\_01048

Scully Capital Services, Inc.



<img001.jpg>

[Quoted text hidden]

[Quoted text hidden]

---

**Morgan Wright** <[REDACTED]>

Mon, May 2, 2011 at 2:52 PM

To: Peter O'Rourke <[REDACTED]>

Bowen says he convinced Jim that credit is BB or better, so most of this list is now off the table. Big remaining issue is defending size of facility. To paraphrase Rob, how do we justify that Amp can compete and win 20% of domestic solar business over the next five years with ground mounts like CVSR being built at \$2.50/watt less than distributed gen today? If the only reason is a 15-20% reduction in price with a guarantee, that's probably not good enough. Need something more.

He said we should ask BofA and ProLogis these questions as well, and told Herman the same. I'm happy to assist in those calls if you want.

[Quoted text hidden]

---

**Peter O'Rourke** <[REDACTED]>

Mon, May 2, 2011 at 3:15 PM

To: Morgan Wright <[REDACTED]>

Amp is competitive with cvsr on watt price. Plus amp saves on transmission and is constructed in fraction of time. Manu good reasons.

Peter O'Rourke

[Quoted text hidden]

---

**From:** Arthur Haubenstock  
**Sent:** Monday, January 11, 2010 12:25 AM  
**To:** Keely Wachs; Joshua Bar-Lev  
**Subject:** RE: For Review: Ivanpah Outreach Campaign

Keely- this looks terrific. My suggestions are attached. I'll be in Sac tomorrow for the first day of the hearings on Bio but will be back in the office Tuesday- we can work on combining the table I put together with the overall strategy.

---

**From:** Keely Wachs  
**Sent:** Friday, January 08, 2010 10:58 AM  
**To:** Joshua Bar-Lev; Arthur Haubenstock  
**Subject:** For Review: Ivanpah Outreach Campaign

Gents,

I've updated the Ivanpah Outreach Campaign a bit. While still a work in progress, please use the below copy, not the original version that I sent you.

Thanks,  
Keely

**Objectives:**

- Reframe the context of the Ivanpah project – change the way that people understand Ivanpah and position it as an environmentally responsible project that should be approved by the CEC/BLM
- Change the perception of the Ivanpah project among environmental groups inclined to litigation or opposition
- Make the environmental and economic benefits of Ivanpah widely known

**Strategies:**

- Identify and activate a grassroots network capable of building a movement of advocates – environmentalists, labor, business, university students/youth groups, investors, citizens for renewable energy (BSE family and friends, H&K network, RR Network, TMG network, High Desert Region Green Jobs Initiative)
- Identify and engage a grassroots network capable of advocating to key stakeholders – policymakers, regulators, media influencers, environmental leaders
- Create communications that build momentum towards the ground breaking milestone
- Leverage new and traditional media channels to tell the story to reach mass audiences
- Brand the Ivanpah project to be seen as the future of California's clean energy economy

**Networks to Tap and Build Foundation of Support:**

- Solar community: SEIA, LSA, VoteSolar
- Organized Labor – building trades
- Academic Community: Northern California – Dan Kammen (UC Berkeley Energy and Resources Group), Severin Borenstein, UCB RAEL and Southern California – UC Riverside, Cal Poly (SLO & Pomona), UCLA, USC, etc.
- Environmental Community: Bobby Kennedy, CEMAR
- Business Community: BSE Investors, Bay Area Council, CA Chamber, CalCEF, E2
- Customers: PG&E, SCE
- Friends/Family of BSE, including vendors, suppliers
- University students

**Research**

- Pulse and tracking polls, both state and local

**Media**

- Editorial Boards with the LA Times, Sac Bee, NY Times, SB Press Enterprise
  - John Woolard with one enviro and one labor supporter
- Op-Eds

- o Bobby in Trochuggor and Huffington Post
- o John
- o Enviros
- o Labor
- Affinity Group Newsletters
  - o Provide content to third-party groups for repurposing in their newsletters, i.e. conduct Q&A's with enviro groups, local groups, etc.
- Social Media
  1. Ivanpah Facebook page
    1. Leverage video content
    2. Link with other climate change/renewable energy "Facebook Cause" pages
  2. YouTube
    1. Host video content on Ivanpah YouTube page
    2. Link with Facebook page
    3. Push video content to network
    4. Videos:
      - Three campaign videos above
      - John's speeches
      - John's WEF interview
      - John's Copenhagen interview

#### **Direct Communications**

- Speaking opportunities
  - o National
  - o Hyper-local
- Engagement Events
  - o Executives meetings with local Chamber of Commerce, City Councils, Board of Supervisors, Rotary Club, Kiwanis, etc
  - o Host community events, inviting local residents/stakeholders to learn more about the project, hear from Arnold, etc
  - o Conduct presentations for environmental groups – national, state and local levels
- Emails
  - o Email campaign leveraging above networks
  - o Direct email response sending supportive emails to CEC/BLM, leaders of environmental groups, Governor Schwarzenegger
  - o Sending content/pushing new Facebook/YouTube content
- Direct Letter Writing Campaign
  - Leverage above networks to send in letters to CEC/BLM
  - Already have six letters sent in

#### **Content**

- Videos:
  - o Econ benefits: interviews with San Bernardino County locals, mayor of Victorville, chamber of commerce, small business, junior colleges, Linda Jones
  - o Environmental reality: bobby, other enviros. footage of the site, climate change, solar energy
  - o Renewable energy for CA: interview citizens on the street, footage of political leaders eschewing renewable virtues, Peter Darbee, Michael Peevey, John Woolard
- One-pagers
  - o Econ benefits
  - o BSE's/Ivanpah's environmental approach
- Letters
  - o Letters sent to:
    - CEC/BLM
    - Gov
    - Enviro Groups

Keely Wachis  
 Sr. Director, Corporate Communications  
 BrightSource Energy

Ph: [REDACTED]  
Cel: [REDACTED]  
Email: [REDACTED]

<< 2010-01-08 Ivanpah Outreach Campaign.rdlm.docx (21.4KB)  
[21.4KB]  
>>

**Jonathan Silver**

---

**From:** SRS0=JvVFnP=3E=atl.blackberry.net; [REDACTED] on behalf of Jonathan Silver [REDACTED]  
**Sent:** Thursday, August 18, 2011 6:48 AM  
**To:** Morgan Wright; Jonathan Silver  
**Cc:** Brandon Hurlbut; Frances Nwachuku; Matt Winters  
**Subject:** Re:

We do drop another 4 behind in this scenario, but likely recovery now is next to nil. If this takes us from five cents to four cents, but opens up another week of dialogue and allows us to announce one or two more closed deals, seems worth it.

Jonathan Silver

[REDACTED]

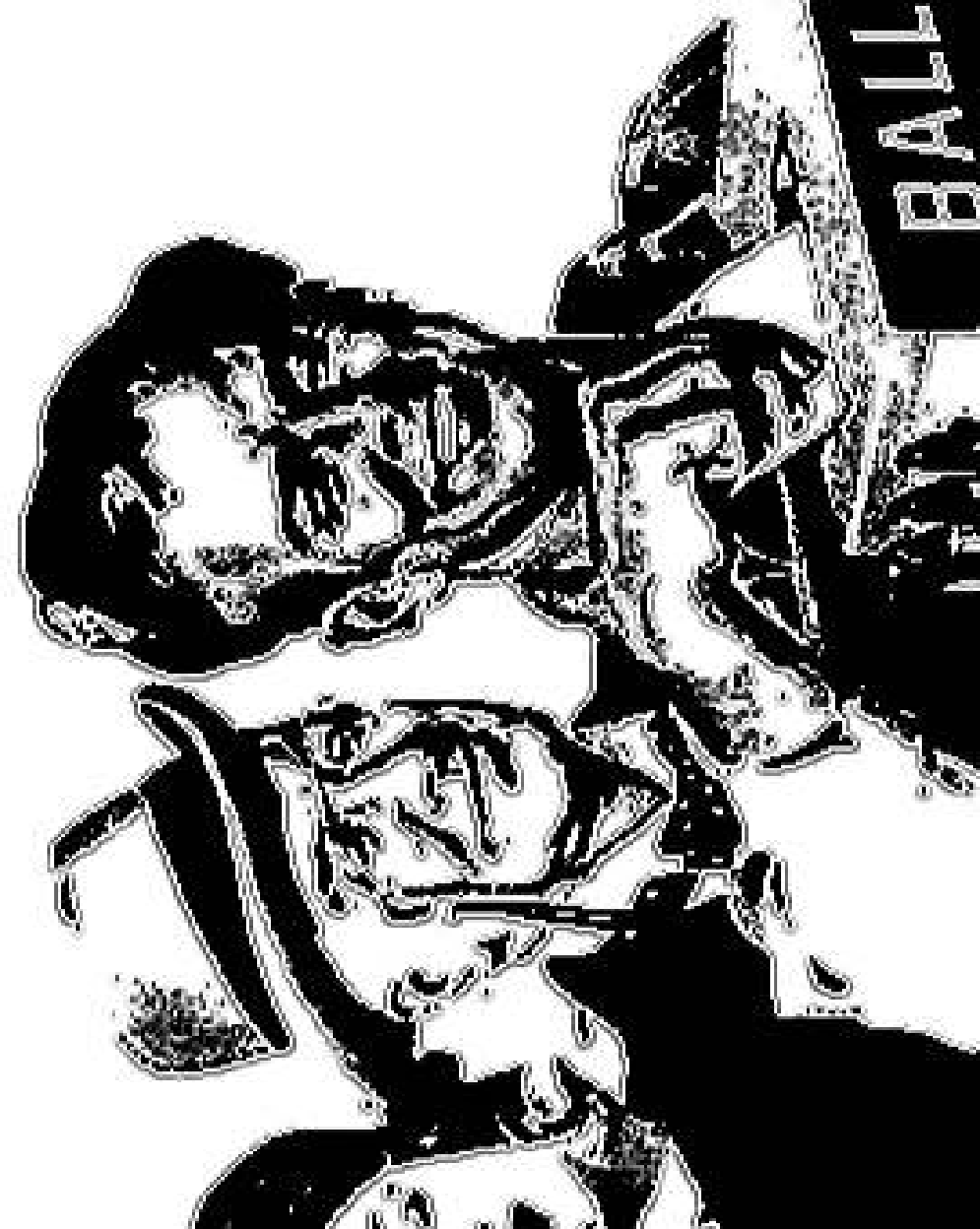
---

**From:** Morgan Wright - [REDACTED]  
**Date:** Thu, 18 Aug 2011 06:39:21 -0400  
**To:** <jonathan.[REDACTED]>  
**Cc:** Brandon Hurlbut-[REDACTED]; Frances Nwachuku-[REDACTED];  
Matt Winters-[REDACTED]  
**Subject:** Re:

Given his posturing, not sure we want to disadvantage our standing in liquidation further.

On Aug 18, 2011 3:23 AM, "Jonathan Silver" [REDACTED] wrote:  
> I have another idea. The last 4 million went in subordinate to tranche a and our debt.  
> Let's offer to have the next four go in as A, to let us continue talking.  
> Thoughts?  
>  
> Jonathan Silver  
>  
> [REDACTED]  
> [REDACTED]





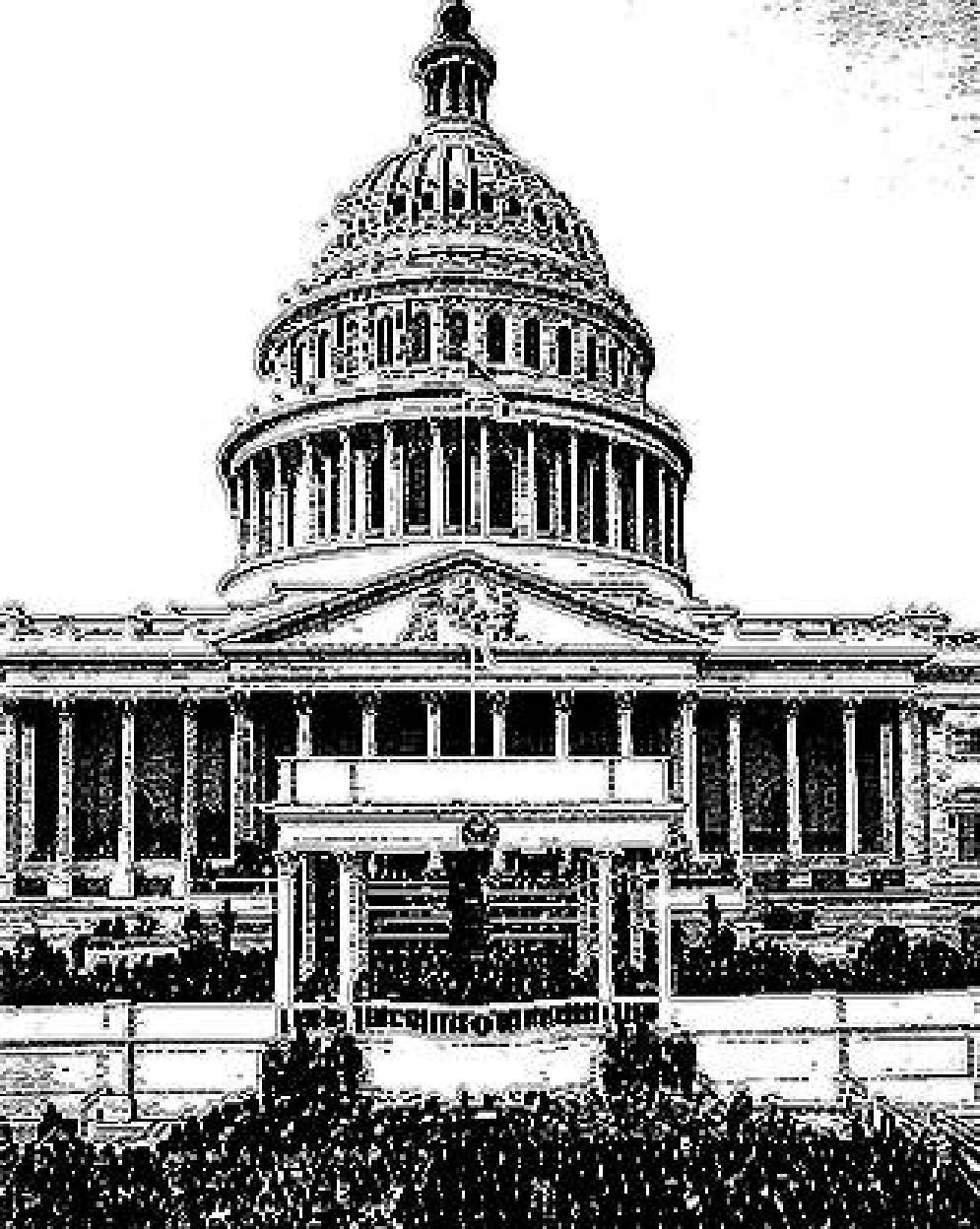


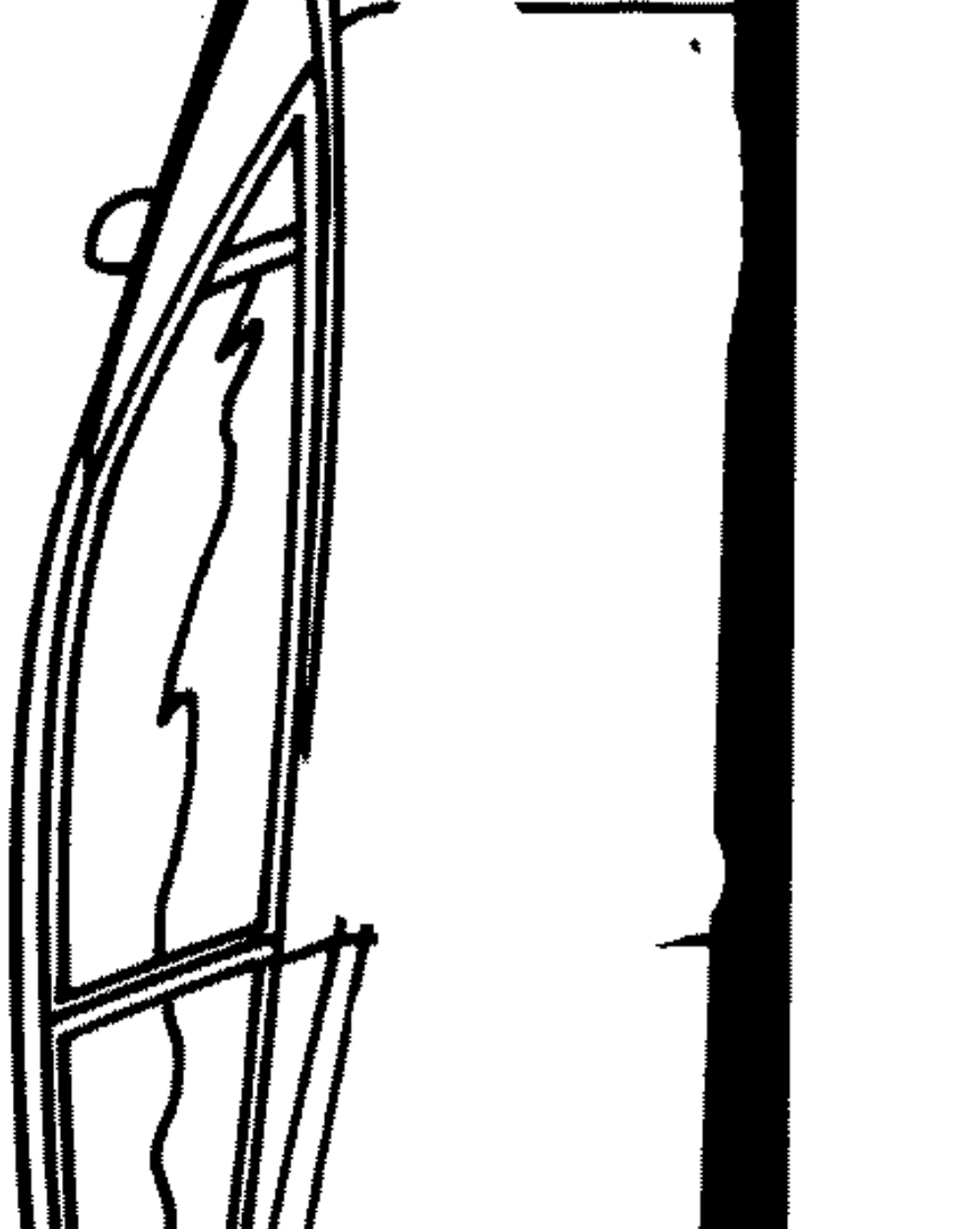
THIS IS AN ACTUAL BOEING BATTERY



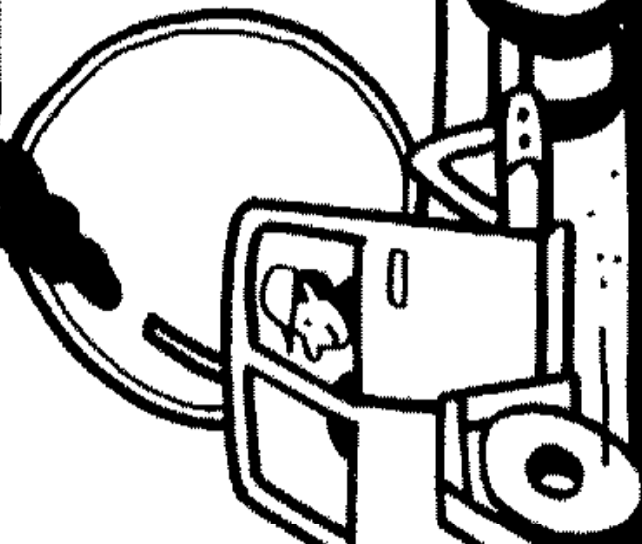
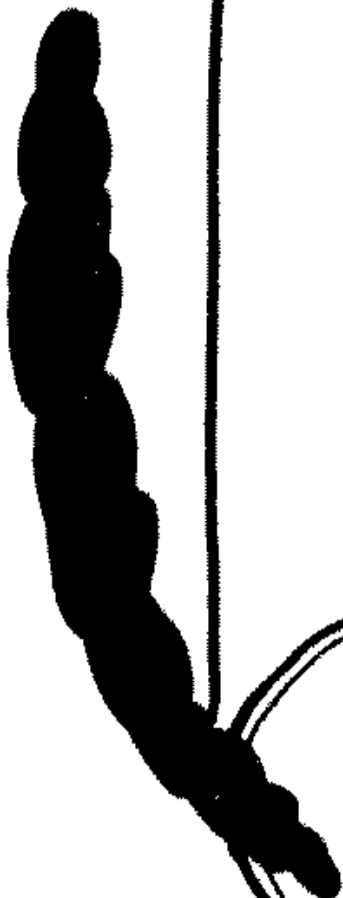






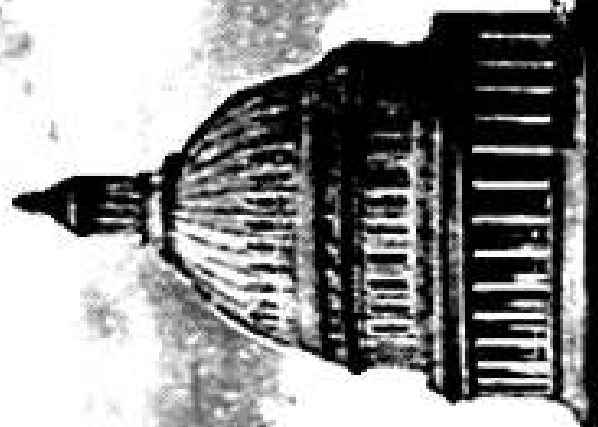


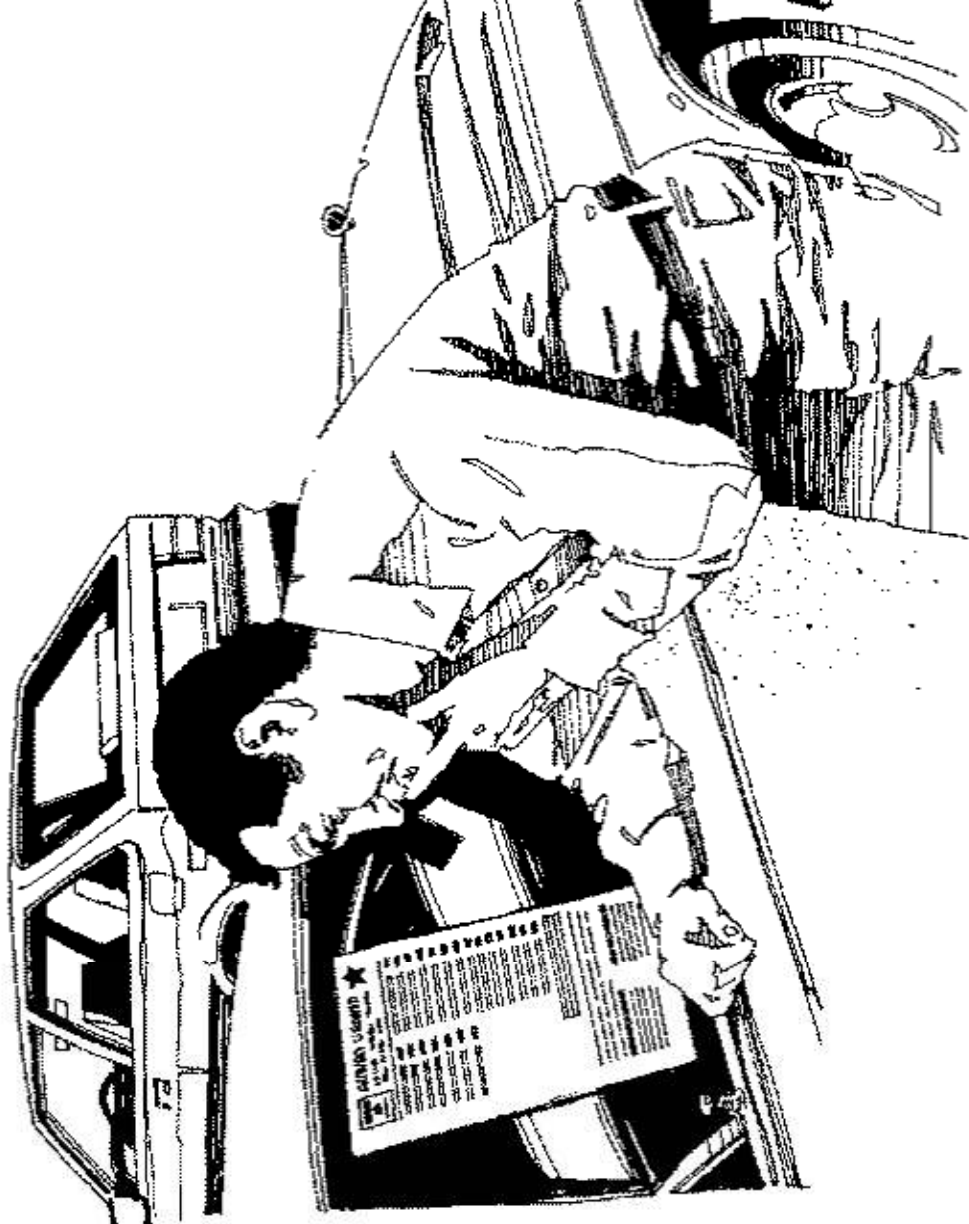
**CHEVRO**





**ONE WAY**



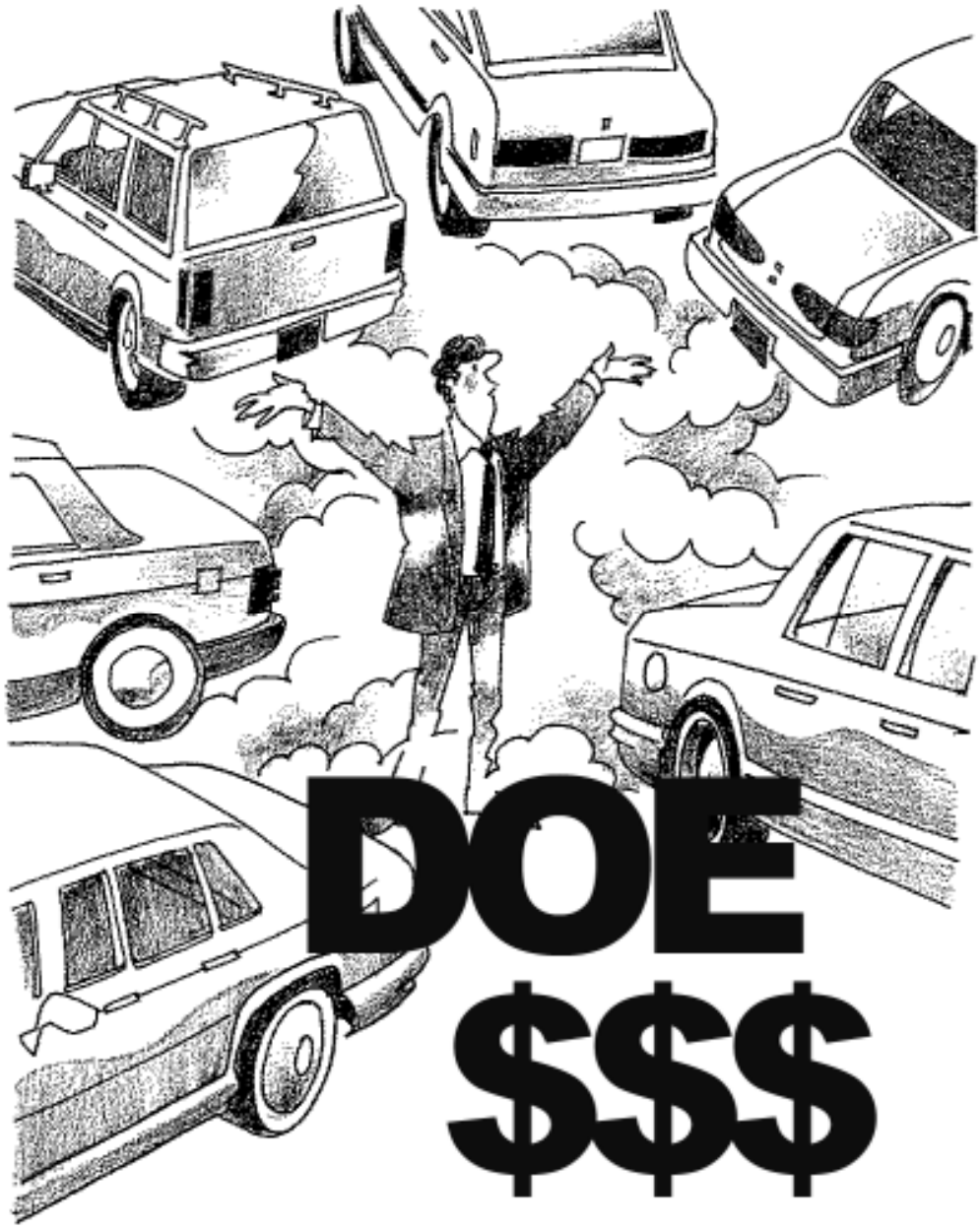




A diamond-shaped sign with a white background and a black border. The sign is oriented vertically, with the top point at the top. The words "DEAD" and "END" are written in a bold, black, sans-serif font, stacked vertically in the center of the diamond. The sign is mounted on a dark, textured background.

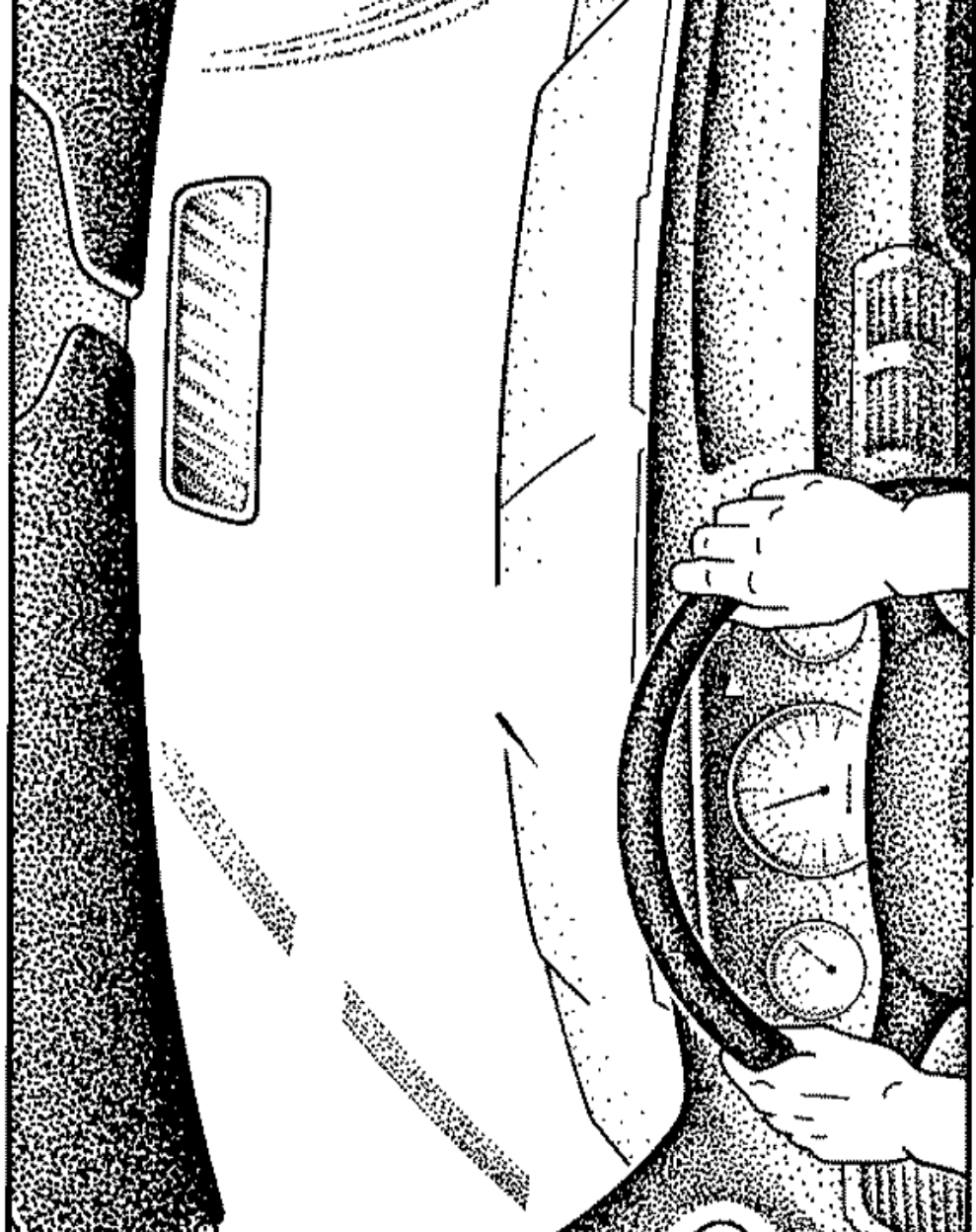
**DEAD  
END**





**DOE**

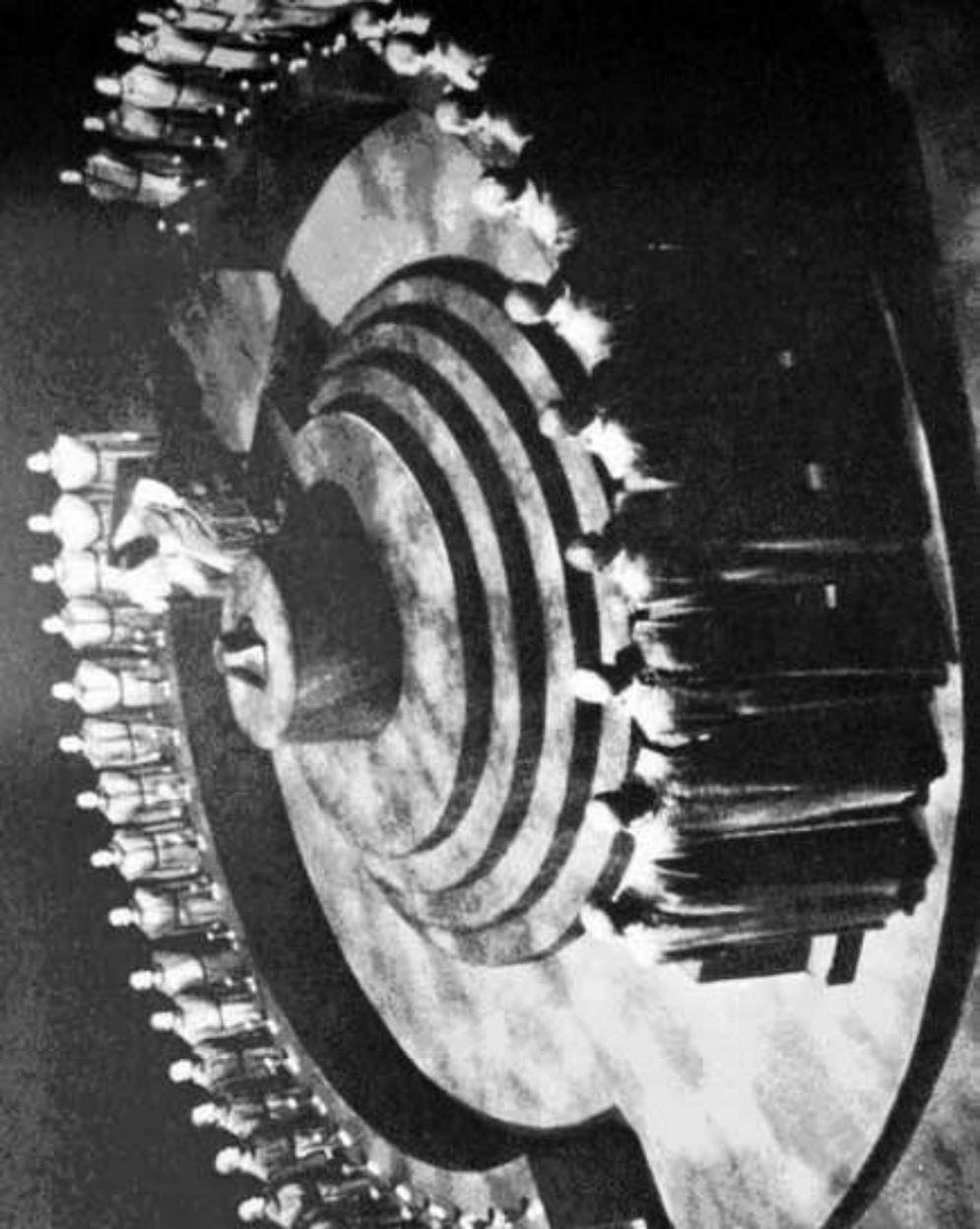
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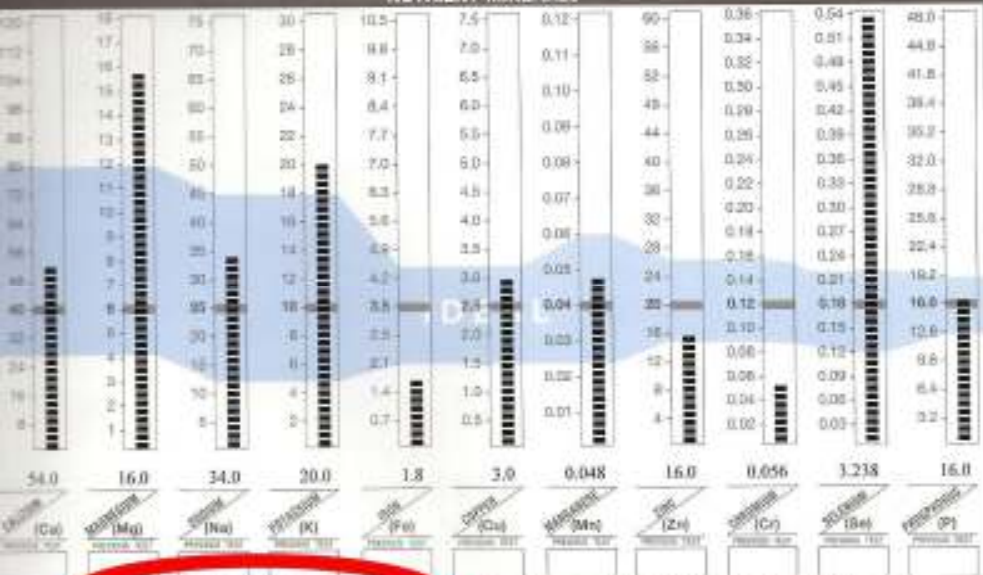
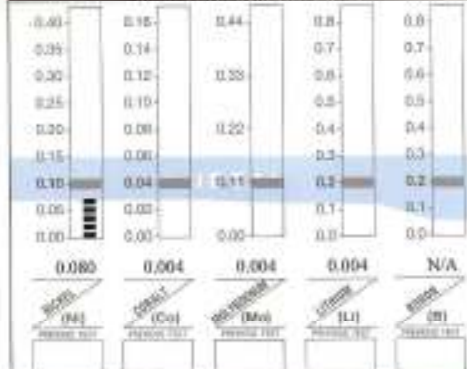


DRUNK AND DANGEROUS: Drunk Driving Fatalities  
Making crashes 50% more likely







**NUTRIENT MINERALS****TOXIC METALS****ADDITIONAL MINERALS****SIGNIFICANT MINERAL RATIOS**

MINERAL RATIO	OCAL RATIO	SUFFICIENCY RATIO	% OF RATIO	MINERAL RATIO	LOW	HIGH
Ca:Mg	4.07	3.38	51		○○○○○○○○○○	
Ca:K	4.00	2.70	68		○○○○○○○○○○	
Mg:Mn	4.17	2.13	51		○○○○○○○○○○	
K:Fe	2.89	1.70	68		○○○○○○○○○○	
Zn:Cu	6.00	5.33	67		○○○○○○○○○○	
Ca:P	2.50	3.38	135		○○○○○○○○○○	○○○○○○○○○○

MIXED OXIDIZER FAST OXIDIZER SLOW OXIDIZER

**Keywords:** Lithium ion battery, ionic liquid, electrolyte, safety, thermal stability

## INTRODUCTION

Lithium ion batteries have been widely used on personal computers and mobile phones for high-voltage, high-energy-density characteristics [1-4]. Especially, the rapidly need for resource and crisis of energy, lithium ion batteries attract more attention as the power source of hybrid electric vehicles. However, Lithium ion batteries have not been large-scale applied in electric vehicles for the safety issues, the volatile and flammable organic solvent and the main components of electrolytes in lithium ion batteries, the cases of flaming, smoking or runaway caused by electrolytes are the main reason for the safety problem. Therefore, electrolyte system, which has more stable features, is necessary to be found.



ON MUSK  
GREAT BALLS O' FIRE





**ULTIMATE  
LITHIUM**

***Energizer***®

The logo features a stylized blue and light blue swoosh on the left side, resembling a curved arrow or a battery terminal. The text "ULTIMATE LITHIUM" is positioned above the swoosh, and "Energizer" is written in a bold, italicized font below it, with a registered trademark symbol (®) to its right.

**DO NOT**

**(UNLESS YOU BRIBED  
A SENATOR )**

**ENTER**





6 THAT BLEW UP AND BURST INTO FLAMES JUST BECAUSE THEIR LITHIUM ION BATT

## Panasonic Batteries

Panasonic Industrial Company  
 A Division of Panasonic Corporation of North America  
 5201 Tollview Drive, 1F-3  
 Rolling Meadows, IL 60008  
 Toll Free: 877-726-2228  
 Fax: 847-658-6750

### Product:

**Lithium-ion Batteries (Li-ion)**

**Applicable models/sizes: All Cylindrical and prismatic Lithium-ion Cobalt type**

### FIRE SAFETY

In case of fire, you can use dry chemical, alcohol resistant foam or carbon dioxide fire extinguishers. Cooling the exterior of the batteries will help prevent rupturing. Burning of these batteries will generate toxic fumes. Fire fighters should use self-contained breathing apparatus.

### employees

Because all of our batteries are defined as "articles", they are exempt from the requirements of the Hazard Communication Standard, hence a MSDS is not required.

The following components are found in a Panasonic Lithium Ion battery:

Component	Material	Formula
Positive Electrode	Lithium Cobalt Oxide	LiCoO <sub>2</sub>
Negative Electrode	Graphite	C
Electrolyte	Ethylene Carbonate - Solvent	C <sub>4</sub> H <sub>8</sub> O <sub>3</sub>
	Diethyl Carbonate - Solvent	C <sub>8</sub> H <sub>14</sub> O <sub>2</sub>
	Lithium Hexafluorophosphate - Salt	LiPF <sub>6</sub>

The overall reaction is:  $Li_xC + Li_{1-x}CoO_2 \rightleftharpoons C + LiCoO_2$



### DISPOSAL

All Panasonic Lithium Ion batteries are classified by the federal government as non-hazardous waste and are safe for disposal in the normal municipal waste stream. These batteries, however, do contain recyclable materials and are accepted for recycling by the Rechargeable Battery Recycling Corporation's (RBRC) Battery Recycling Program. Please call 1-800-6-BATTERY for information on recycling your used Lithium Ion battery or go to the RBRC website at [www.rbrc.org](http://www.rbrc.org) for additional information.

### TRANSPORTATION

Effective October 1, 2008 all Panasonic lithium ion batteries are not subject to the requirements of the Department of Transportation (DOT) Subchapter C, Hazardous Materials Regulations, shipped in compliance with 49 CFR 173.185 and Special Provision 188.

Currently all Panasonic lithium ion batteries can be transported under the International Civil Aviation Organization (ICAO) and the International Air Transport Association (IATA) under Special Provision A45. Effective January 1, 2009 Special Provision A45 will be replaced by Packing Instructions (PI) 965 (Batteries), PI 966 (Batteries, packed with equipment) and PI 967 (Batteries, contained in equipment).

Currently all Panasonic lithium ion batteries are regulated by the International Maritime Organization (IMO) under Special Provisions 188 and 230. These regulations will stay in effect until January 1, 2010 when Special Provisions 188 and 230 will be updated.

If you build any of our lithium cells into a battery pack, you must also assure that they are tested in accordance with the UN Model Regulations, Manual of Test and Criteria, Part III, sub-section 38.3. If you plan on transporting any untested prototype battery packs contact your Panasonic Sales Representative for regulatory information.





August 5, 2014

The Honorable Darrell Issa  
Chairman  
Committee on Oversight and  
Government Reform  
United States House of Representatives  
2157 Rayburn House Office Building  
Washington, DC 20515

The Honorable Thomas R. Carper  
Chairman  
Homeland Security and  
Governmental Affairs Committee  
United States Senate  
340 Dirksen Senate Office Building  
Washington, DC 20510

The Honorable Elijah Cummings  
Ranking Member  
Committee on Oversight and  
Government Reform  
United States House of Representatives  
2157 Rayburn House Office Building  
Washington, DC 20515

The Honorable Tom Coburn  
Ranking Member  
Homeland Security and  
Governmental Affairs Committee  
United States Senate  
340 Dirksen Senate Office Building  
Washington, DC 20510

Dear Mr. Chairmen and Ranking Members:

The undersigned federal Inspectors General write regarding the serious limitations on access to records that have recently impeded the work of Inspectors General at the Peace Corps, the Environmental Protection Agency, and the Department of Justice. Each of us strongly supports the principle that an Inspector General must have complete, unfiltered, and timely access to all information and materials available to the agency that relate to that Inspector General's oversight activities, without unreasonable administrative burdens. The importance of this principle, which was codified by Congress in Section 6(a)(1) of the *Inspector General Act of 1978*, as amended (the IG Act), cannot be overstated. Refusing, restricting, or delaying an Inspector General's access to documents leads to incomplete, inaccurate, or significantly delayed findings or recommendations, which in turn may prevent the agency from promptly correcting serious problems and deprive Congress of timely information regarding the agency's performance.

We have learned that the Inspectors General for the Peace Corps, the Environmental Protection Agency (in his role as Inspector General for the Chemical Safety and Hazard Investigation Board) and the Department of Justice have recently faced restrictions on their access to certain records available to their agencies that were needed to perform their oversight work in critical areas. In each of these instances, we understand that lawyers in these agencies construed other statutes and law applicable to privilege in a manner that would override the express authorization contained in the IG Act. These restrictive readings of the IG Act represent potentially serious challenges to the authority of every Inspector General and our ability to conduct our work thoroughly, independently, and in a timely manner.

The Honorable Thomas R. Carper  
The Honorable Darrell Issa  
The Honorable Tom Coburn  
The Honorable Elijah Cummings  
August 5, 2014

In the Peace Corps example, the Peace Corps General Counsel interpreted the Kate Puzey Peace Corps Volunteer Protection Act of 2011, which, among other things, provided an extensive oversight role for the Peace Corps Office of Inspector General (Peace Corps OIG) in examining the Peace Corps' handling of reports of sexual assault against Peace Corps volunteers, as prohibiting the agency from giving access to records clearly authorized under the IG Act. While the Peace Corps has entered into a Memorandum of Understanding with its OIG granting access to a greater amount of information than initially provided, the agency still refuses to provide its OIG with full access to sexual assault records. The Department of Justice Office of the Inspector General (DOJ OIG) had essential records withheld by agency components in three different reviews due to a cramped reading of the IG Act by agency lawyers, despite the fact that such records had been produced to the DOJ OIG by the agency in many prior reviews without objection. While Department of Justice leadership ultimately granted permission for these particular records to be made available to the DOJ OIG, it did so based on a finding that the three reviews were of assistance to the Department of Justice's leadership, not because of the DOJ OIG's independent authority under the IG Act, thereby undermining the DOJ OIG's independence. Issues such as these are likely to recur unless agencies recognize the authority of Inspectors General under Section 6(a)(1) to access all agency records.

With respect to the Environmental Protection Agency Office of Inspector General (EPA OIG), the Chemical Safety and Hazard Investigation Board (CSB) refused to provide requested documents relating to an EPA OIG investigation, arguing that attorney-client privilege defeated the statutorily mandated Inspector General access. While valid privilege claims might in certain circumstances appropriately limit the EPA OIG's subsequent and further release of documents, a claim of privilege provides no basis to withhold documents from the EPA OIG in the first instance. Unable to obtain access to these CSB documents, the EPA OIG ultimately filed a "Seven Day Letter" under Section 5(d) of the IG Act in September 2013, noting and objecting to the interference and seeking Congressional assistance. On June 18, 2014, the House Oversight and Government Reform Committee held a hearing that addressed the EPA Seven Day Letter along with related issues.

Moreover, the issues facing the DOJ OIG, the EPA OIG, and the Peace Corps OIG are not unique. Other Inspectors General have, from time to time, faced similar obstacles to their work, whether on a claim that some other law or principle trumped the clear mandate of the IG Act or by the agency's imposition of unnecessarily burdensome administrative conditions on access. Even when we are ultimately able to resolve these issues with senior agency leadership, the process is often lengthy, delays our work, and diverts time and attention from substantive oversight activities. This plainly is not what Congress intended when it passed the IG Act.

This nation's 35 years of experience since the IG Act was passed has demonstrated that effective and independent oversight by Inspectors General saves taxpayers money and improves the operations of the federal government. Because meaningful oversight depends on complete and timely access to all agency materials and data, Section 6(a)(1) of the IG Act expressly provides for such access. Agency actions that limit, condition, or delay access thus have profoundly negative consequences for our work: they make us less effective, encourage other agencies to take similar actions in the future, and erode the morale of the dedicated professionals that make up our staffs.

Therefore, we strongly and unequivocally support our fellow Inspectors General at the Peace Corps, the Environmental Protection Agency, and the Department of Justice in their efforts to gain access to documents that are available to their agencies and that relate to their ongoing investigations and reviews, without undue administrative burdens and delays. Limiting access in this manner is inconsistent with the IG Act, at odds with the independence of Inspectors General, and risks leaving the agencies insulated from scrutiny and unacceptably vulnerable to mismanagement and misconduct—the very problems that our offices were established to review and that the American people expect us to be able to address.

Section 6(a)(1) of the IG Act reflects the clear intent of Congress that an Inspector General is entitled to timely and unimpeded access to all records available to an agency that relate to that Inspector General's oversight activities. The constricted interpretations of Section 6(a)(1) by these and other agencies conflict with the actual language and Congressional intent. The IG Act is clear: no law restricting access to records applies to Inspectors General unless that law expressly so states, and that unrestricted access extends to all records available to the agency, regardless of location or form. The Senate Committee on Appropriations, Subcommittee on Commerce, Justice, and Science, so recognized in Section 217 of S. 2437 regarding access to records by the DOJ OIG. A strong, generally applicable reaffirmation of this Congressional intent, coupled with the use of all available powers to enforce such access when agencies refuse to comply, will assist Inspectors General in obtaining prompt and complete agency cooperation.

Respectfully,

Michael G. Carroll, Acting Inspector General,  
Agency for International Development  
Hubert Sparks, Inspector General,  
Appalachian Regional Commission  
Kevin Mulshine, Inspector General,  
Architect of the Capitol

The Honorable Todd J. Zinser, Inspector General,  
Department of Commerce

The Honorable Deborah Jeffrey, Inspector General,  
Corporation for National and Community Service

Mary Mitchelson, Inspector General,  
Corporation for Public Broadcasting

Kristi M. Washull, Inspector General  
Defense Intelligence Agency

David Sheppard, Acting Inspector General,  
The Denali Commission

The Honorable Arthur A. Elkins, Jr., Inspector General,  
Environmental Protection Agency

Milton Mayo, Inspector General,  
Equal Employment Opportunity Commission

Michael T. McCarthy, Acting Inspector General,  
Export-Import Bank of the United States

Elizabeth Dean, Inspector General,  
Farm Credit Administration

Michael P. Stephens, Acting Inspector General,  
Federal Housing Finance Agency

Dana Rooney-Fisher, Inspector General,  
Federal Labor Relations Authority

Jon Hatfield, Inspector General  
Federal Maritime Commission

Kelly Tshibaka, Acting Inspector General,  
Federal Trade Commission

The Honorable John Roth, Inspector General,  
Department of Homeland Security

The Honorable David A. Montoya, Inspector General,  
Department of Housing and Urban Development

The Honorable Michael E. Horowitz, Inspector General,  
Department of Justice

The Honorable Scott Dahl, Inspector General,  
Department of Labor

Jeffrey E. Schanz, Inspector General  
Legal Services Corporation

The Honorable Paul K. Martin, Inspector General  
National Aeronautics and Space Administration

James Springs, Acting Inspector General,  
National Archives and Records Administration



Jim Hagen, Inspector General  
National Credit Union Administration

Tonie Jones, Inspector General,  
National Endowment for the Arts

Laura Davis, Inspector General,  
National Endowment for the Humanities

Dawn R. Ellenberger, Inspector General,  
National Geospatial-Intelligence Agency

David Berry, Inspector General,  
National Labor Relations Board

Adam G. Harris, Inspector General,  
National Reconnaissance Office

Allison Lerner, Inspector General,  
National Science Foundation

Dr. George Ellard, Inspector General,  
National Security Agency

The Honorable Hubert T. Bell, Inspector General,  
Nuclear Regulatory Commission

The Honorable I. Charles McCullough, III, Inspector  
General, Office of the Inspector General of the  
Intelligence Community

The Honorable Patrick E. McFarland, Inspector General  
Office of Personnel Management

Kathy A. Buller, Inspector General,  
Peace Corps

Deborah Stover-Springer, Acting Inspector General,  
Pension Benefit Guaranty Corporation

Jack Callender, Inspector General,  
Postal Regulatory Commission

David Williams, Inspector General  
U.S. Postal Service

The Honorable Martin J. Dickman, Inspector General  
Railroad Retirement Board

Carl W. Hoecker, Inspector General  
Securities and Exchange Commission

John F. Sopko, Special Inspector General  
Special Inspector General for Afghanistan  
Reconstruction

The Honorable Thomas A. Carper  
The Honorable Darrell Issa  
The Honorable Tom Coburn  
The Honorable Elijah Cummings  
August 5, 2014

The Honorable Christy Romero, Special Inspector General,  
Special Inspector General for the Troubled Asset  
Relief Program  
The Honorable Steve A. Linick, Inspector General,  
Department of State  
The Honorable Richard Moore, Inspector General,  
Tennessee Valley Authority  
The Honorable Eric M. Thorson, Inspector General,  
Department of the Treasury  
The Honorable J. Russell George, Inspector General,  
Treasury Inspector General for Tax Administration  
Richard J. Griffin, Acting Inspector General,  
Department of Veterans Affairs

cc: The Honorable Beth Cobert  
Deputy Director for Management  
Office of Management and Budget

The Honorable Carrie Hessler-Radelet  
Director, Peace Corps

The Honorable Eric H. Holder, Jr.  
Attorney General

The Honorable David Mader  
Controller, Office of Management and Budget

The Honorable Rafael Moure-Eraso  
Chair, Chemical Safety and Hazard Investigation Board

The Honorable Barbara Boxer  
Chair, Senate Environment and Public Works Committee

The Honorable Ken Calvert  
Chair, House Subcommittee on Interior, Environment, and  
Related Agencies of the House Committee on Appropriations

The Honorable John Conyers, Jr.  
Ranking Member, House Committee on the Judiciary

The Honorable Bob Corker  
Ranking Member, Senate Committee on Foreign Relations

The Honorable Eliot L. Engel  
Ranking Member, House Committee on Foreign Affairs

The Honorable Chaka Fattah  
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The Honorable Bob Goodlatte  
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The Honorable Lindsay Graham  
Ranking Member, Senate Subcommittee on State, Foreign Operations, and  
Related Programs of the Senate Committee on Appropriations

The Honorable Kay Granger  
Chair, House Subcommittee on State, Foreign Operations, and  
Related Programs of the House Committee on Appropriations

The Honorable Charles E. Grassley  
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The Honorable Patrick Leahy  
Chair, Senate Committee on the Judiciary  
Chair, Senate Subcommittee on State, Foreign Operations, and Related  
Programs of the Senate Committee on Appropriations

The Honorable Nita Lowey  
Ranking Member, House Subcommittee on State, Foreign Operations, and  
Related Programs of the House Committee on Appropriations

The Honorable Robert Menendez  
Chair, Senate Committee on Foreign Relations

The Honorable Barbara Mikulski  
Chair, Senate Subcommittee on Commerce, Justice, Science, and  
Related Agencies of the Senate Committee on Appropriations

The Honorable Thomas R. Carper  
The Honorable Darrell Issa  
The Honorable Tom Coburn  
The Honorable Elijah Cummings  
August 5, 2014

The Honorable Jim Moran  
Ranking Member, House Subcommittee on Interior, Environment, and  
Related Agencies of the House Committee on Appropriations

The Honorable Lisa Murkowski  
Ranking Member, Senate Subcommittee on Interior, Environment, and  
Related Agencies of the Senate Committee on Appropriations

The Honorable Jack Reed  
Chair, Senate Subcommittee on Interior, Environment, and Related  
Agencies of the Senate Committee on Appropriations

The Honorable Edward R. Royce  
Chair, House Committee on Foreign Affairs

The Honorable Richard C. Shelby  
Vice Chair, Senate Subcommittee on Commerce, Justice, Science, and  
Related Agencies of the Senate Committee on Appropriations

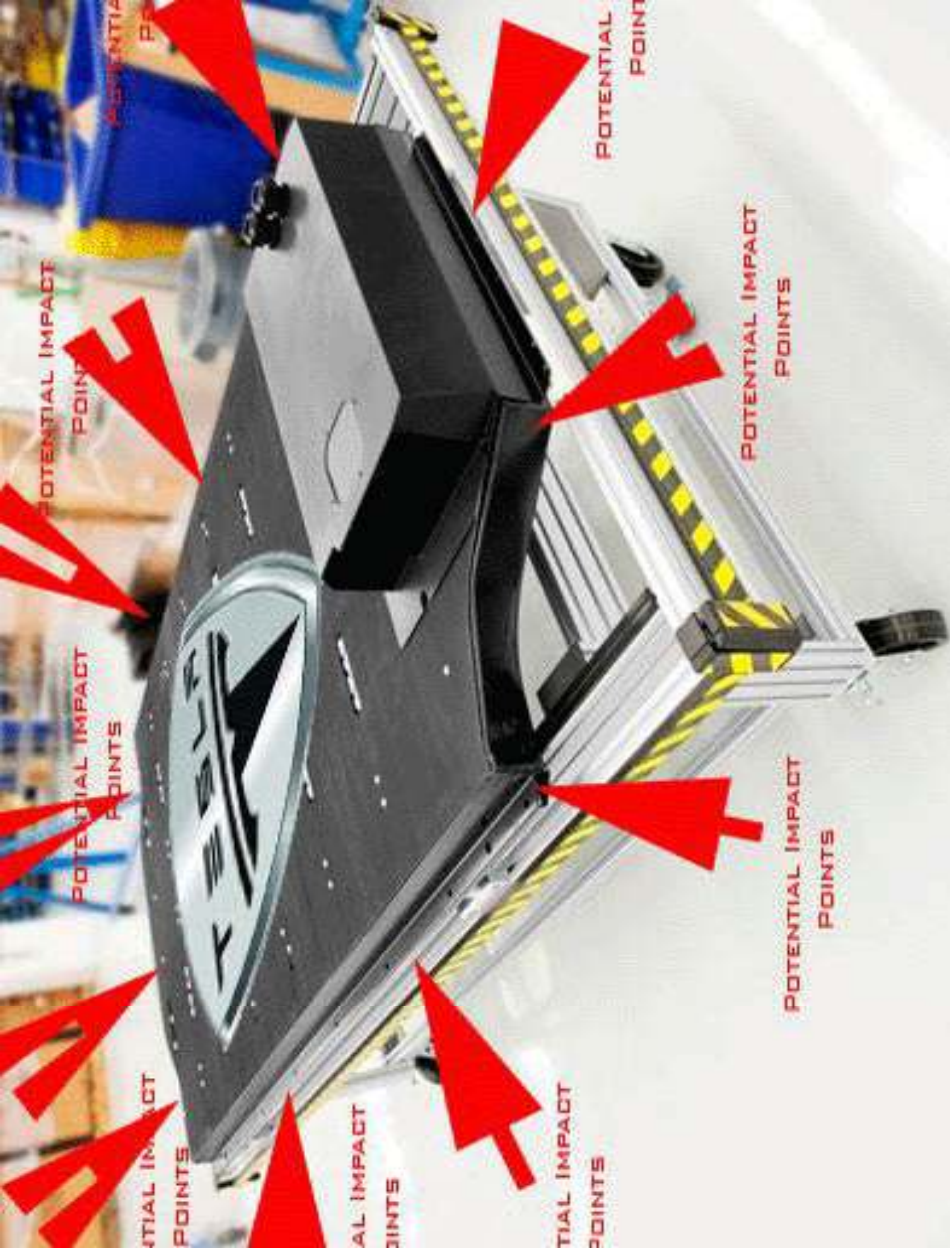
The Honorable Fred Upton  
Chair, House Energy and Commerce Committee

The Honorable David Vitter  
Ranking Member, Senate Environment and Public Works Committee

The Honorable Henry Waxman  
Ranking Member, House Energy and Commerce Committee

The Honorable Frank Wolf  
Chair, House Subcommittee on Commerce, Justice, Science, and  
Related Agencies of the House Committee on Appropriations





POTENTIAL IMPACT POINTS

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## INFLUENCE GAME: Toyota's Powerful DC Friends

INFLUENCE GAME: Toyota has friends in high places in Washington, but are the

ON THEIMER

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NGTON

makers now investigating Toyota's recall include a senator who was so eager to lure the automaker to his state that he tramped along through fields as its executives scouted pgresswoman who owes much of her wealth to a Toyota supplier.

Morning Update

[US: North Korea to suspend nuclear activities - 37 Minutes Ago](#)

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**[Bright Automotive calls it quits](#)**  
**<http://heraldbulletin.com/business/x1875169421/Sources-Bright-Automotive-to-close>**



The Flagship Enterprise Center where Bright Automotive is located. John P. Cleary

**Company runs out of money amid changing federal demands**

**By Stuart Hirsch**

**[The Herald Bulletin \(http://heraldbulletin.com\)](http://heraldbulletin.com)**

ANDERSON, Ind. — After failing to secure a federal loan to finance its operation and production costs to build a hybrid delivery vehicle, Bright Automotive said Tuesday that it will cease operations.

The startup company, which also has facilities in Rochester Hills, Mich., and Mishawaka, was seeking





**U.S. Department of Energy  
Loan Guarantee Program**

**FEDERAL LOAN GUARANTEES FOR PROJECTS THAT  
EMPLOY INNOVATIVE ENERGY EFFICIENCY,  
RENEWABLE ENERGY, AND ADVANCED TRANSMISSION  
AND DISTRIBUTION TECHNOLOGIES**

**Reference Number: DE-FOA-0000140  
OMB Control Number: 1910-5134  
Announcement Type: INITIAL**

**Issue Date: July 29, 2009**



# U.S. DEPARTMENT OF ENERGY

**NEWS MEDIA CONTACT:**  
(202) 586-4940

**FOR IMMEDIATE RELEASE**  
Tuesday, February 16, 2010

## **Obama Administration Announces Loan Guarantees to Construct New Nuclear Power Reactors in Georgia**

*Conditional deal is major step towards restarting the domestic nuclear industry*

Washington D.C. -- Underscoring his Administration's commitment to jumpstarting the nation's nuclear power industry, President Obama today announced that the Department of Energy has offered conditional commitments for a total of \$8.33 billion in loan guarantees for the construction and operation of two new nuclear reactors at a plant in Burke, Georgia. The project is scheduled to be the first U.S. nuclear power plant to break ground in nearly three decades.

"To meet our growing energy needs and prevent the worst consequences of climate change, we need to increase our supply of nuclear power and today's



# U.S. DEPARTMENT OF ENERGY

**NEWS MEDIA CONTACT:**  
(202) 586-4940

**FOR IMMEDIATE RELEASE**  
Monday, February 22, 2010

## **DOE Announces Nearly \$1.4 billion in Conditional Loan Guarantees for BrightSource Energy**

*Innovative solar energy projects expected to create more than 1,000 jobs*

Washington D.C. --- Energy Secretary Steven Chu today announced conditional commitments for more than \$1.37 billion in loan guarantees under the American Recovery and Reinvestment Act to BrightSource Energy, Inc. to support the construction and start-up of three utility-scale concentrated solar power plants. The new plants will generate approximately 400 megawatts (MW) of electricity using the company's innovative, proprietary technology. This would nearly double the existing generation capacity of this type of renewable energy in the U.S.

"This is an investment in American jobs and the clean, renewable energy our economy needs," said Secretary Chu. "We're not going to sit on the sidelines while other countries



# U.S. DEPARTMENT OF ENERGY

**News Media Contact(s):**  
Craig Stevens, (202) 586-4940

**For Immediate Release**  
March 6, 2007

## **DOE Releases Information on Loan Guarantee Pre-Applications**

**WASHINGTON, DC** – The Department of Energy (DOE) today announced that the Loan Guarantee Office has received 143 pre-applications requesting more than \$27 billion in loan guarantee protection as of the December 31, 2006, submission deadline. These pre-applications, representing project costs of more than \$51 billion, were submitted in response to a Department of Energy solicitation issued in August 2006. The pre-applications currently are under preliminary review.

“This demonstrates a great desire from industry to get federal loan guarantees in place to spur innovative and novel technologies that lead to clean energy,” Secretary of Energy Samuel W. Bodman said. “As we move through the process, experts will be taking a hard look at the proposals, the design, and the financing risks associated with each pre-application with the hopes of inviting some sponsors to submit loan guarantee applications to DOE as soon as possible.”

In the full-year Continuing Resolution that was enacted into law on February 15, 2007, Congress provided DOE with \$7 million to fund the operation of its Loan Guarantee Office, and authority to issue guarantees for up to \$4 billion in loans. The President has requested \$8.4 million for operation of the DOE Loan Guarantee Office in FY 2008, with a loan volume limitation of \$9 billion.

Analysis of the pre-applications received by the December 31, 2006, deadline shows the following:

The technologies represented by the Pre-Applications include:  
49% biomass

15% advanced fossil conversion technologies



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For Release August 11, 2003 - 10:00 a.m. PDT

## GM Communications

General Motors Corp.  
Advanced Technology  
Communications  
480-208-115  
Cadillac Headquarter  
30009 Van Dyke  
Warren, MI 48090

### MOTORS IN WHEEL GIVE GM 'JUMP' ON ADVANCED TECHNOLOGY VEHICLES

LOS ANGELES - Imagine a vehicle that can give you sports car performance, better fuel economy, unrivaled handling, and enhanced vehicle safety simultaneously.

Engineers at General Motors Corp. have developed a potential breakthrough technology, called wheel hub motor that could dramatically increase consumer acceptance of advanced technology vehicles.

"We believe this technology will lead to the industry's first practical application of wheel hub motors for consumers," said Larry Burns, vice president of research and development and planning. "The electric wheel hub motor is a critical element in making affordable and fuel-efficient all-wheel drive and advanced technology vehicles."



United States Department of Energy

## Office of Public Affairs

Washington, D.C. 20585

**News Media Contact(s):**  
(202) 586-4940

**For Immediate Release**  
March 20, 2009

### **Obama Administration Offers \$535 Million Loan Guarantee to Solyndra, Inc.**

*Investment Could Lead to Thousands of New Jobs*

Washington, DC – Energy Secretary Steven Chu today offered a \$535 million loan guarantee for Solyndra, Inc. to support the company's construction of a commercial-scale manufacturing plant for its proprietary cylindrical solar photovoltaic panels. The company expects to create thousands of new jobs in the U.S. while deploying its solar panels across the U.S. and around the world.

"This investment is part of President Obama's aggressive strategy to put Americans back to work and reduce our dependence on foreign oil by developing clean, renewable sources of energy," Secretary Chu said. "We can create millions of new, good paying jobs that can't be outsourced. Instead of relying on imports from other countries to meet our energy needs, we'll rely on America's innovation, America's resources, and America's workers."

Secretary Chu is moving aggressively to accelerate important Department of Energy investments that can create jobs and transform the way America uses and produces energy. This allows the Department of Energy to offer its first loan guarantee within the first two months of the Obama Administration. This loan guarantee will be supported through the President's American Recovery and Reinvestment Act, which provides tens of billions of dollars in loan guarantee authority to build a new, vibrant economy.

# DEPARTMENT OF THE ARMY

## Procurement Programs

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Committee Staff Procurement Backup Book  
Fiscal Year (FY) 2006/FY 2007 Budget Estimates

**OTHER PROCUREMENT, ARMY**  
**Tactical and Support Vehicles**  
Budget Activity 1

APPROPRIATION



# U.S. DEPARTMENT OF ENERGY

## News Media Contact(s):

Megan Barnett, (202) 586-4940

## For Immediate Release

May 10, 2007

### **DOE Proposes Regulations for Loan Guarantee Program**

*Program to spur clean, innovative energy technologies*

**WASHINGTON, DC** – The U.S. Department of Energy (DOE) today issued a Notice of Proposed Rulemaking (NPR) for its Loan Guarantee program, which will help spur investment in projects that employ new, clean energy technologies. Projects within DOE's Loan Guarantee program will help sustain economic growth, yield environmental benefits and allow for a more stable and secure energy supply. Under the FY'07 Continuing Resolution, Congress provided DOE with authority to issue guarantees for up to \$4 billion in loans; and in the Administration's FY'08 budget, DOE requested \$9 billion in loan guarantee authority.

"This demonstrates our desire to foster implementation and commercialization of new, environmentally friendly technologies that will reduce emissions and strengthen our energy and economic security," Secretary Bodman said. "This program will support promising energy technologies that will help encourage increased use of cleaner sources of energy worldwide."

DOE's Loan Guarantee program, authorized in Title XVII of the Energy Policy Act of 2005 (EPAct), aims to encourage early commercial use of new or significantly improved technologies in energy projects. By providing the full faith and credit of the United States government, loan guarantees will enable DOE to share some of the financial risks of projects that employ new technologies that avoid,



News Media Contact:  
(202) 586-4940

For Immediate Release:  
Thursday, May 20, 2010

## **DOE Offers Conditional Loan Guarantee for Front End Nuclear Facility in Idaho**

### **Uranium Enrichment Project to Create Over 1,000 Jobs in Idaho**

Washington, DC - As part of a broad effort to expand the use of nuclear power in the United States and reduce carbon pollution, U.S. Secretary of Energy Steven Chu announced today the Department's first conditional commitment for a front-end nuclear facility. The \$2 billion loan guarantee will support AREVA's Eagle Rock Enrichment Facility near Idaho Falls, Idaho, which will supply uranium enrichment services for the U.S. nuclear power industry.

"Increasing uranium enrichment in the United States is critical to the nation's energy and national security," said Secretary Chu. "Existing reactors will need additional sources of enriched uranium soon. New nuclear plants that could start to come on line as early as 2016 will also need a steady, reliable source of uranium enrichment services. AREVA's project will help to meet that demand."

approximately 20,000 tons – is woefully short of what's needed if electric car production really takes off.

Argentina, Australia and Chile account for more than 50% of the world's lithium production; Russia also produces significant amounts.

But the real power player in the lithium market is Bolivia. Whether you take the pessimistic or optimistic estimate of its reserves, the South American country's Salar de Uyuni salt desert has about 40% of the world's lithium, so far untapped. Mitsubishi, which thinks electric car production will outstrip lithium supply as early as 2015, is already in talks with Bolivia about sourcing its lithium. Ditto Toyota, one of the few automakers producing its own batteries.

What makes Bolivia's position atop the lithium world truly ironic is that one of the United States' (and Europe's as well) primary objectives is to end its slavery to "foreign oil," particularly since some of its suppliers have "problematic" politics. Evo Morales, the President of Bolivia, while not nearly as controversial as Venezuela's Hugo Chavez, is nonetheless an ardent socialist and eager to ensure that South America's poorest nation is not again ravaged of its natural resources.

According to Time magazine, Morales is adamant that battery production--not just lithium mining -- becomes a source of revenue for his impoverished country.

So far, despite the potential for increased demand, development of Bolivia's lithium reserves has not proceeded rapidly. However, the incredible irony remains that the U. S. -- where growth in hybrid vehicles is strongest -- could be trading one unwanted South American source of energy --Venezuela -- for another.

The questions remain: Will there be enough lithium for electric cars? Will it be mined fast enough? No answer seems definitive. Besides, the predicted popularity of electric cars could just be an environmentalist's fantasy. Just as easily, battery technology could develop beyond the need for lithium, although, at the current rate of development, automakers seem committed to it for at least the medium-term future. Of course, we could have faith in the rosiest of mining/production estimates and assume all will go swimmingly no matter how many electric cars and laptop batteries are needed.

But I'm not paid to be an optimist. I'm a skeptic. And Lord knows, the world of electric cars could use less of the former and more of the latter.

1,000 computer-sized batteries all mashed into one package. But whether they are the lithium cobalt batteries used in portable devices -- not very useful for automotive use because of their reputation for overheating -- or the newer lithium phosphate or lithium manganese formulations developed for cars, all use a base of lithium metal, which is most easily extracted from salt brine.

That might be a problem. There is already discussion of how much oil remains interred beneath the Earth's surface and whether we are already suffering shortages because of the peak oil problem -- essentially a theory stating that the amount of the world's oil reserves is irrelevant since we have already reached our maximum ability to easily extract it. Now there may be problems with how much lithium the Earth holds and how quickly it can be mined.

On the pessimistic side, there is William Tahil, author of the research paper *The Trouble with Lithium*, who estimates the world's lithium reserves at about four million tons. He claims the production of hybrid and electric cars will soon tax the world's production of lithium carbonate. At the other end of the spectrum is Keith Evans, who has released *An Abundance of Lithium*, a report estimating there are 28 million tons of the base metal to be had, plenty enough to go around. Somewhere in the middle of these two opposing viewpoints is the United States Geological Survey's somewhat dated estimate of 11 million tons.

Part of the discrepancy is due to how economical and easily each group thinks the mining of lithium will be, dividing their estimates between "reserves" (think of easily obtained Saudi Arabian oil literally bubbling to the surface) and the more difficult to process "base reserves" (think Canada's Athabasca Oil Sands). Even the optimistic Evans allows that, like oil, his more generous prediction is based on the price of lithium rising in order to make increased mining cost-effective. This is not good news to automakers since it's estimated that these new high-tech batteries already cost as much as US\$10,000.

While existing mining levels are able to cope with current demand, there is no consensus on how many lithium-powered electric cars can be produced.

Tahil says any more than 1.5 million GM Volt-type vehicles annually would strain current production. SQM S. A., Chile's largest producer of lithium carbonate, says there is plenty for about five million electric vehicles. Evans predicts there's enough lithium for far more.

Bob Kruse, GM's executive director of Global Vehicle Engineering, also notes that some of the lithium in his company's new Chevy Volt will be recyclable, thereby reducing demand.

The discrepancies owe as much to the types of electric cars being produced -- fully electric cars need

# The problem with lithium

David Booth, National Post

Presented by



Pierre Verdy. AFP, Getty Images

How quickly we have forgotten. Yesterday's front-page headline is today's page 13 filler, consigned to the back of the newspaper as something sexier or more pressing forces its way to page one-- above the fold.

The subject I'm talking about is oil, the pressing story before all the world's stock markets decided to simultaneously implode. We used to worry about the price of oil and when it would run out, and even

non-petrochemical engineers understood the concept of "peak oil." But, whether alternative energy is still big news or not, this much is clear: The world's oil supply is finite, fossil-fuelled vehicles pollute and the public outcry for an alternative is strong.

The leading alternative right now -- if you judge technology by the amount of press generated -- is electric cars. Electric cars don't pollute, electrons are relatively cheap and, perhaps most importantly, these vehicles seem to have captured the imagination of the American consumer, still the greatest economic engine in the world.

Naturally, there are issues. Electric cars don't have the range that current gasoline-powered cars enjoy. Replenishing the onboard energy supply is problematic, taking anywhere from 30 minutes (with special equipment) to all day. There's also the small problem of the battery having to power both the car's engine and its various ancillary and convenience devices -- someday soon you may have to decide what's more important, air conditioning or getting to your final destination.

Then there's the least talked about problem on our road to electric transportation -- the source of all that power. I don't mean the massive amounts of additional electricity needed to power the approximately seven million cars a very optimistic Carlos Ghosn, Nissan's CEO, estimates will be sold annually by the year 2020 but the actual batteries that will store all those portable electrons. Just as we already have a problem with peak oil having caused last year's massive price spike at the pumps, there may be a similar paucity in the world's capacity to produce lithium, the miracle metal key to so many automakers' future plans for hybrid and electric vehicles.

Morning Update

[US: North Korea to suspend nuclear activities - 37 Minutes Ago](#)

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**Bright Automotive calls it quits**  
**(<http://heraldbulletin.com/business/x1875169421/Sources-Bright-Automotive-to-close>)**



The Flagship Enterprise Center where Bright Automotive is located.  
John P. Cleary

**Company runs out of money amid changing federal demands**

**By Stuart Hirsch**

**The Herald Bulletin (<http://heraldbulletin.com>)**

ANDERSON, Ind. — After failing to secure a federal loan to finance its operation and production costs to build a hybrid delivery vehicle, Bright Automotive said Tuesday that it will cease operations.

The startup company, which also has facilities in Rochester Hills, Mich., and Mishawaka, was seeking a \$450 million low-interest loan from the U.S. Department of Energy to finance production of the IDEA, its plug-in hybrid service van.

"Bright has not been explicitly rejected by the DOE; rather we have been forced to say 'uncle.' As a result, we are winding down our operations," Bright CEO Reuban Munger and Chief Operating Officer Mike Donoughe said in a scathing letter to Energy Secretary Steven Chu.

The company spent three years and \$15 million negotiating with the DOE for the loan, said Michael Brylawski, vice president of corporate strategy. Each time the company submitted a proposal, he said, the government responded with more onerous requirements.

Executives stopped taking salaries last fall and were contributing their own money to keep the company alive.

"We couldn't meet payroll and ran out of cash," Brylawski said. "We couldn't feed the beast anymore."

"Last week, we received the fourth 'near final' Conditional Commitment Letter since September 2010.

Bright was launched in January 2008 at the Colorado-based Rocky Mountain Institute and soon afterward opened an engineering facility at Anderson's Flagship Enterprise Center. In November 2010, Bright officials announced the opening of a research plant in Rochester Hills and, a year later, a production facility in Mishawaka.

Neither choice was in Bright's original loan application, Brylawski said. The company's original plan was to locate all its facilities at the Flagship Business Center.

"We were told by the DOE in August 2010 that Bright would get the ATVM loan 'within weeks, not months' after we formed a strategic partnership with General Motors (Corp.) as the DOE had urged us to do," the two executives wrote.

"We lined up and agreed to private capital commitments exceeding \$200 million — a far greater percentage than previous DOE loan applicants. Finally, we signed definitive agreements with state-of-the-art manufacturer AM General that would have employed more than 400 union workers in a facility that recently laid-off 350 workers."

And then the company waited.

"We continued to play by the rules, even as you and your team were changing those rules constantly — seemingly on a whim," the letter said.

Bright officials hoped to employ about 200 people at the Michigan facility and 1,000 more at the production site and had touted the IDEA as a potential replacement for gas-guzzling delivery-fleet vans.

It all seemed so different when Bright executives unveiled the company's 100-mpg hybrid-electric prototype at EVS-24, the world's largest electric vehicle symposium and exhibition in June 2009.

It was a heady time for startups like Bright. Passed by Congress with bipartisan support, the Energy Independence Act of 2007 established the Advanced Technology Vehicles Manufacturing Loan Program designed to reduce the country's dependence on foreign oil and promote clean automotive technologies.

Later, President Barack Obama pledged to put 1 million hybrid or fully electric cars on the road by 2015.

By last September, however, only six loans totaling \$9.1 billion had been approved under the ATVM program, although 18 applications — including Bright's — were pending.

Then came the collapse and bankruptcy of solar panel maker Solyndra LLC, which borrowed \$527 million from the government. After the company folded, scrutiny of the program intensified.

The Obama administration ordered a review of DOE's handling of the program, while companies like Bright struggled to secure funding to begin production.

"Support from the community of Anderson was wonderful and help from Flagship was critical, too," Brylawski said.

"To me it's tragic that this has happened. I personally came to know and respect the people and admired their capabilities. We were on the path to create a very profitable enterprise, and the DOE

Applicant	(Dollars in Millions)	Project Locations	Technology
<b>Cell, Battery, and Materials Manufacturing Facilities</b>			
Johnson Controls, Inc.	\$299.2	Holland, MI Lebanon, OR (Entek)	Production of nickel-cobalt-metal battery cells and packs, as well as production of battery separators (by partner Entek) for hybrid and electric vehicles.
A123 Systems, Inc.	\$249.1	Romulus, MI Brownstown, MI	Manufacturing of nano-iron phosphate cathode powder and electrode coatings; fabrication of battery cells and modules; and assembly of complete battery pack systems for hybrid and electric vehicles.
KD ABG MI, LLC (Dow Kokam)	\$161	Midland, MI	Production of manganese oxide cathode / graphite lithium-ion batteries for hybrid and electric vehicles.
Compact Power, Inc. (on behalf of LG Chem, Ltd.)	\$151.4	St. Clair, MI Pontiac, MI Holland, MI	Production of lithium-ion polymer battery cells for the GM Volt using a manganese-based cathode material and a proprietary separator.
EnerDel, Inc.	\$118.5	Indianapolis, IN	Production of lithium-ion cells and packs for hybrid and electric vehicles. Primary lithium chemistries include: manganese spinel cathode and lithium titanate anode for high power applications, as well as manganese spinel cathode and amorphous carbon for high energy applications.
General Motors Corporation	\$105.9	Brownstown, MI	Production of high-volume battery packs for the GM Volt. Cells will be from LG Chem, Ltd. and other cell providers to be named.
Saft America, Inc.	\$95.5	Jacksonville, FL	Production of lithium-ion cells, modules, and battery packs for industrial and agricultural vehicles and defense application markets. Primary lithium chemistries include nickel-cobalt-metal and iron phosphate.
Exide Technologies with Axion Power International	\$34.3	Bristol, TN Columbus, GA	Production of advanced lead-acid batteries, using lead-carbon electrodes for micro and mild hybrid applications.
East Penn Manufacturing Co.	\$32.5	Lyon Station, PA	Production of the UltraBattery (lead-acid battery with a carbon supercapacitor combination) for micro and mild hybrid applications.
<b>Advanced Battery Supplier Manufacturing Facilities</b>			
Celgard, LLC, a subsidiary of Polypore	\$49.2	Charlotte, NC Aiken, SC	Production of polymer separator material for lithium-ion batteries.
Toda America, Inc.	\$35	Goose Creek, SC	Production of nickel-cobalt-metal cathode material for lithium-ion batteries.
Chemetall Foote Corp.	\$28.4	Silver Peak, NV Kings Mtn., NC	Production of battery-grade lithium carbonate and lithium hydroxide.
Honeywell International Inc.	\$27.3	Buffalo, NY Metropolis, IL	Production of electrolyte salt (lithium hexafluorophosphate (LiPF6)) for lithium-ion batteries.
BASF Catalysts, LLC	\$24.6	Elyria, OH	Production of nickel-cobalt-metal cathode material for lithium-ion batteries.
EnerG2, Inc.	\$21	Albany, OR	Production of high energy density nano-carbon for ultracapacitors.
Novolyte Technologies, Inc.	\$20.6	Zachary, LA	Production of electrolytes for lithium-ion batteries.
FutureFuel Chemical Company	\$12.6	Batesville, AR	Production of high-temperature graphitized precursor anode material for lithium-ion batteries.

## Advanced Lithium-Ion Battery Recycling Facilities

TOXCO Incorporated	\$9.5	Lancaster, OH	Hydrothermal recycling of lithium-ion batteries.
<b>Electric Drive Component Manufacturing Facilities</b>			
General Motors Corporation	\$105	White Marsh, MD Wixom, MI	Construction of U.S. manufacturing capabilities to produce the second-generation GM global rear-wheel electric drive system.
Delphi Automotive Systems, LLC	\$89.3	Kokomo, IN	Expansion of manufacturing for existing electric drive power electronics components for both passenger and commercial vehicles.
Allison Transmission, Inc.	\$62.8	Indianapolis, IN	Increasing U.S. capacity to manufacture hybrid systems for the commercial truck market.
Ford Motor Company	\$62.7	Sterling Heights, MI	Producing a Ford electric drive transaxle with integrated power electronics in an existing Ford transmission facility.
Remy, Inc.	\$60.2	Potential locations in IN: Anderson, Morristown, Greenfield, or Indianapolis AND Fargo, ND	Establishing a standardized platform of hybrid electric motors and controls.
UQM Technologies, Inc.	\$45.1	Frederick, CO	Expanding established propulsion systems into a volume manufacturing environment.
Magna E-Car Systems of America, Inc.	\$40	Muncie, IN Holly, MI	Increasing production capacity of advanced automotive electric drive system component manufacturing plants located in the U.S.
<b>Electric Drive Subcomponent Manufacturing Facilities</b>			
KEMET Corporation	\$15.1	Simpsonville, SC	Production of DC bus capacitors including soft wound film and stacked film capacitors necessary for electric drive system power electronics.
SBE, Inc.	\$9.1	Barre, VT	Outfitting of a high-volume manufacturing facility to build DC Bus Capacitors for the electric drive vehicle industry.
Powerex, Inc.	\$8.1	Youngwood, PA	Creating an electric drive semiconductor



Applicant	(in Millions)	Project Focus	Project Goals
<b>Advanced Vehicle Electrification</b>			
Electric Transportation Engineering Corp. (ETEC)	\$99.8	<i>Headquarters:</i> Phoenix, AZ <i>Manufacturing:</i> Phoenix, AZ and Northern California <i>Deployment:</i> Portland, Salem, Eugene and Corvallis, OR; Seattle, WA; San Diego, CA; Phoenix and Tucson, AZ; Nashville, Chattanooga, and Knoxville, TN	ETEC and its partner Nissan will demonstrate up to 5,000 Nissan electric vehicles with a 100 mile range and deploy up to 12,500 Level 2 and 250 Level 3 chargers.
Chrysler LLC	\$70	<i>Manufacturing:</i> Warren, MI and St. Louis, MO; <i>Deployment:</i> 11 partner fleets	Develop, validate, and deploy 220 advanced plug-in hybrid electric pickups and minivans.
South Coast Air Quality Management District (SCAQMD)	\$45.4	<i>Headquarters:</i> Diamond Bar, CA <i>Manufacturing:</i> Galesburg, MI and Elizabethtown, KY; <i>Deployment:</i> 50 different utilities and fleets	Develop a fully integrated, production plug-in hybrid system for Class 2 – 5 vehicles (8,501 – 19,500 lbs gross vehicle weight). Demonstrate a fleet of 378 trucks and shuttle buses.
Navistar, Inc. (Truck)	\$39.2	<i>Manufacturing:</i> Elkhart County, IN; <i>Deployment:</i> Portland, Chicago, and Sacramento	Develop, validate, and deploy 400 advanced battery electric delivery trucks (12,100 lbs. gross vehicle weight) with a 100 mile range.
<b>Transportation Sector Electrification</b>			
Cascade Sierra Solutions	\$22.2	<i>Headquarters:</i> Coburg, OR; <i>Deployment:</i> 50 U.S. truck stop electrification sites	Deployment of truck stop electrification infrastructure at 50 sites along major U.S. Interstate corridors and provide 5,450 rebates for truck modification to idle reduction technologies.
<b>Advanced Vehicle Electrification + Transportation Sector Electrification</b>			
General Motors	\$30.5	<i>Manufacturing:</i> Michigan; <i>Deployment:</i> several utility partners' fleets	Develop, analyze, and demonstrate hundreds of Chevrolet Volt Extended Range Electric Vehicles (EREVs) – 125 Volt PHEVs for electric utilities and 500 Volt PHEVs to consumers.
Ford Motor Company	\$30	<i>Manufacturing:</i> Michigan and Kansas City, MO; <i>Deployment:</i> several utility partners' fleets	Accelerate the launch and commercialization of PHEVs and EVs by partnering with 15 of America's leading utilities. Deploy up to 150 plug-in hybrid electric vehicles, including 130 Ford Escape PHEVs and 20 Ford E450 Van PHEVs.
		<i>Manufacturing:</i>	Develop and deploy up to 100 electric vehicles, such

## Advanced Electric Drive Vehicle Education Program

West Virginia University (NAFTC)	\$6.9	Morgantown, WV State of South Carolina	<ul style="list-style-type: none"> <li>• <i>Educational programs for:</i> Graduate, Undergraduate and Secondary Students; Teachers; Technicians; Emergency Responders; General Public</li> <li>• <i>Partnering with:</i> NAFTC Headquarters and members; West Virginia Department of Education; South Carolina Department of Education; Greater New Haven Clean Cities Coalition; Innovation Drive, Inc.; Advanced Vehicle Research Center; Auto Exposure LLC; Big Fish Advertising and Public Relations; MotorWeek; Sabre Engineering; Northeast Utilities</li> </ul>
Purdue University	\$6.1	State of Indiana West Lafayette, IN	<ul style="list-style-type: none"> <li>• <i>Educational programs for:</i> Graduate, Undergraduate and Secondary Students; Teachers; Technicians; General Public</li> <li>• <i>Partnering with:</i> University of Notre Dame; Indiana University Purdue University at Indianapolis (IUPUI); Purdue University – Calumet; Indiana University – Northwest; Ivy Tech Community College</li> </ul>
Colorado State University	\$5	State of Colorado State of Georgia Fort Collins, CO Boulder, CO Atlanta, GA	<ul style="list-style-type: none"> <li>• <i>Educational programs for:</i> Graduate, Undergraduate and Secondary Students; Teachers; Technicians; Emergency Responders; General Public</li> <li>• <i>Partnering with:</i> CSU; Georgia Institute of Technology; Arapahoe Community College; Douglas County School System; Nissan NA; KShare; Ricardo; AM General; Motion Reality, Inc.</li> </ul>
Missouri University of Science and Technology	\$5	Rolla, MO Warrensburg, MO Linn, MO St. Louis, MO Kansas City, MO Lee's Summit, MO	<ul style="list-style-type: none"> <li>• <i>Educational programs for:</i> Graduate, Undergraduate and Secondary Students; Teachers; Technicians; Mechanics; Emergency Responders; General Public</li> <li>• <i>Partnering with:</i> University of Central Missouri; Linn State Technical College; St. Louis Science Center; Smith Electric Vehicles U.S. Corporation (SEV-US); Kokam America Inc.</li> </ul>
Wayne State University	\$5	Detroit, MI Warren, MI	<ul style="list-style-type: none"> <li>• <i>Educational programs for:</i> Graduate, Undergraduate and Secondary Students; Teachers; Technicians; Emergency Responders; General Public</li> <li>• <i>Partnering with:</i> NextEnergy; Macomb Community College</li> </ul>
National Fire Protection Association	\$4.4	Quincy, MA	<ul style="list-style-type: none"> <li>• <i>Educational programs for:</i> Emergency Responders</li> <li>• <i>Partnering with:</i> Fire Protection Research Foundation; Automotive Alliance; NREL</li> </ul>
Michigan Technological University	\$2.98	Houghton, MI (Western Upper Peninsula of MI)	<ul style="list-style-type: none"> <li>• <i>Educational programs for:</i> Graduate, Undergraduate and Secondary Students; General Public</li> <li>• <i>Partnering with:</i> Argonne National Laboratory;</li> </ul>

DOE Award (Dollars in Millions)	Project Locations	Project Focus
\$2.5	Detroit, MI Ann Arbor, MI Dearborn, MI Flint, MI	<ul style="list-style-type: none"> <li>• <i>Educational programs for: Graduate Undergraduate and Secondary School Teachers; General Public</i></li> <li>• <i>Partnering with: University of Michigan; Kettering University; Ford; GM; Corning; DTE Energy; Mentor Graphics; Quantum Technologies; A123 Systems</i></li> </ul>
\$0.72	Commonwealth of Virginia and Neighboring Mid-Atlantic States.	<ul style="list-style-type: none"> <li>• <i>Educational programs for: Second Grade Technicians</i></li> <li>• <i>Partnering with: James Madison University; Virginia Department of Education; Toyota; Firestone/Bridgestone</i></li> </ul>
\$0.5	San Francisco , CA	<ul style="list-style-type: none"> <li>• <i>Educational programs for: Second Grade Service Personnel, Technicians</i></li> <li>• <i>Partnering with: Chabot College; Pat's Garage; Perfect Sky Inc.</i></li> </ul>

turned down the company's application for a \$335 million loan to build fuel-efficient police vehicles in a Indiana town hard-hit by unemployment. The news comes 30 months after the company first applied under a special green car loan program.

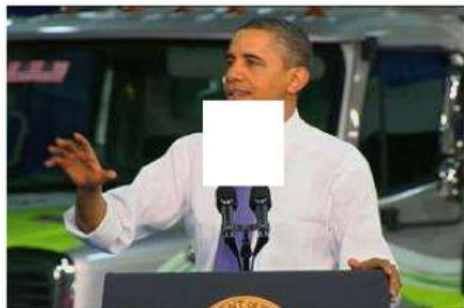
28

## Comments

Weigh In

Corrections?

## Video



President Obama tours Daimler Mount Holly Truck Manufacturing Plant in Mount Holly, N.C. and addresses alternative energy sources and concerns of rising oil prices.

## More from PostPolitics

### Why Oklahoma is so anti-Obama

Aaron Blake

THE FIX | Obama lost 15 counties in the Democratic primary there on Tuesday, and he took just 57 percent of the vote statewide.

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Felicia Sonmez

TRAIL MIX | There wasn't a big gender gap in Tuesday's primaries, but if you dig a little deeper, there's some bad news for Rick Santorum.

### Why Newt Gingrich shouldn't drop out

Carbon Motors officials said they had been assured their application to build a new plant, and create an estimated 1,500 jobs, was nearing approval.

"We are outraged by the actions of the DOE," said William Santana Li, Carbon Motors' chairman and chief executive officer. "In failing to deploy the tax dollars that Congress allocated for the creation of advanced technology manufacturing jobs in the U.S., the DOE [clean car] program represents a glaring failure of the Obama administration to create jobs that are clearly within its power to create."

President Obama made government investment in clean energy companies an early hallmark of his administration, including a \$25 billion loan program to support the manufacture of fuel-efficient and electric cars and fleet trucks. The Advanced Technology Vehicle Manufacturing program had been started under President George W. Bush, but gained new life under Obama with a major appropriation from Congress.

Department of Energy spokesman Damien LaVera said in a prepared statement Wednesday that the department was honoring its dual missions in considering

**Testimony of Matthew Rogers  
Senior Advisor, U.S. Department of Energy**

**Before the  
Subcommittee on Investigations and Oversight**

**Committee on Science and Technology  
U.S. House of Representatives  
Washington, DC**

**March 19, 2009**

Chairman Miller, Ranking Member Broun, and Members of the Subcommittee, thank you for the opportunity to be here today to discuss the U.S. Department of Energy's actions to ensure accountability and transparency in Recovery Act funding, including our efforts to promote science and technology.

Today's severe economic conditions demand rapid action. Effective implementation of the American Recovery and Reinvestment Act of 2009 is an urgent priority for the Administration, for Secretary Chu, and for the Department of Energy. Congress has given the Department a great opportunity and a great responsibility to administer \$32.7 billion in Recovery Act grant and contract authority, \$6 billion in credit subsidy costs that will support tens of billions in new loan guarantees and \$6.5 billion in borrowing authority. Secretary Chu has said repeatedly that getting this money into the economy quickly, carefully, and transparently is a top priority for him. To this end he has personally committed to providing the direction, resources, and oversight needed to assure the timely but accountable distribution of this funding to support short-term needs and protect taxpayers while investing for the long-term in a new economy powered by clean, reliable, affordable, and secure energy.

When Secretary Chu asked me to serve as his Senior Advisor for Recovery Act implementation, he emphasized that we must deliver on four clear objectives:

- Get projects under way quickly,
- Invest in projects with lasting value,
- Exercise an unprecedented degree of transparency and oversight, and
- Deliver a tangible down payment on the nation's energy and environmental future.

We began the public part of this process last week with the Vice President's announcement of \$8.1 billion for Weatherization and State Energy programs, and we will soon have additional funding announcements. These Recovery Act funds will create jobs and lay the groundwork for a less carbon-intensive, less oil-dependent, and cleaner energy economy. All of our efforts are geared toward meeting President Obama's pledge to act boldly and urgently to put Americans back to work by reinvesting in a new clean energy economy. At the same time, we recognize that Recovery Act programs will, and should, receive heightened public scrutiny, and so we are putting in place the leadership and control procedures necessary to track performance and account for expenditures.

### **Department of Energy and GAO's High Risk List**

In this context, it is critical that the Department have in place the most rigorous control and oversight processes to manage and account for the Recovery Act funds—the more so given the Department's past challenges and difficulties in providing adequate management and oversight of its major projects. Since 1990, contract and program management concerns have kept the Department of Energy on the Government Accountability Office's (GAO) High Risk List. In

recent years, however, the Department's Office of Management has made substantial progress and has implemented numerous corrective actions. For example, the Department has developed an action plan to address the major Department risk factors and significantly improve not only the Department's performance in contract and project management, but its overall culture of spending. The plan includes steps to improve risk management, strengthen cost estimation, increase oversight, optimize staff, improve acquisition planning and strategies, and better incorporate project management requirements. The plan also reflects the Department's commitment to improved performance and increased accountability through well-defined metrics and reporting.

As a result of these and other efforts, GAO, in its January 2009 High Risk Update, noted that the Department has met three of the five criteria necessary for removal from its High Risk List. Specifically, the Department has demonstrated strong leadership, developed a corrective action plan, and made progress in implementing effective solutions. Still remaining to be addressed, however, are issues relating to human capital and contract management, and these have caused the Department to remain on GAO's High Risk List. To address the human resource challenges, the Department is implementing actions based on other Federal agencies' best practices. We have also taken steps to establish a more structured, disciplined approach to contract and project management, with an emphasis on improved oversight.

In its update, GAO recognized that the Department's Office of Science has demonstrated continuous, strong performance in meeting original cost and schedule targets. As a result, GAO refined the Department's high-risk area primarily to the National Nuclear Security Administration and the Office of Environmental Management. And, accordingly, the

Department will be following the project management requirements of DOE Order 412.2A and

paying special attention to the performance and oversight of those Environmental Management projects receiving significant funding from the Recovery Act.

### **Recovery Act Transparency and Accountability**

The Department of Energy is committed to carrying out the economic Recovery plan with the highest level of speed, discipline, transparency, and accountability. Under our CFO Steve Isakowitz' leadership, the Department has taken significant steps to improve oversight and strengthen internal controls to ensure that funds are spent effectively. Every morning, the Recovery Act leadership principals from every program and every major function, including representatives from the Offices of the Chief Financial Officer, General Counsel, Procurement and Human Capital, get together to ensure clear alignment on priorities, to report progress, and to resolve any outstanding issues that could impede success. We have developed strong oversight strategies for Recovery Act implementation, including upfront risk assessments and building specific risk management plans, upgrading process controls, establishing personal risk assurance accountabilities, and expanding outreach, training, and coordination between Headquarters and field offices.

As soon as the Recovery Act was passed, we conducted Department-wide risk assessments to identify existing or potential vulnerabilities within our programs that may hinder our efforts to deliver on the Recovery Act. From these identified risks, senior management officials have begun developing risk mitigation plans to increase internal controls and reduce opportunities for fraud, waste, and abuse of Recovery funds. For example, some programs have determined to use a phased approach in their distribution of funds. This will allow them to maintain better accountability by measuring performance against clear project milestones and disbursing new



funds on the basis of successful performance. Several programs have also significantly expanded fraud training for their program managers and senior officials. In high-risk programs such as the Office of Environmental Management, I have met personally or via phone and video conference with all of the site managers, major contractors, state regulators, and major unions to make clear the expectations up front for accountability, delivery, oversight, and transparency.

As part of our planning and monitoring efforts, the Chief Financial Officer's Office of Program Analysis and Evaluation and the Office of Internal Review have taken steps to address internal controls guidance, documentation standards, external reporting requirements, outcome validation, and early issues identification. On an ongoing basis, we participate on government-wide teams led by OMB to develop implementation guidance and requirements. Based on the initial OMB guidance and subsequent meetings, we have already issued Recovery Act implementation guidance to aid programs in developing specific performance plans that detail the status of projects, performance metrics, major project milestones, and risk management. In addition, the CFO's office led a two day "all-hands" field CFO education session for financial control officers to make sure everyone understands his or her responsibilities with respect to oversight and accountability under the Recovery Act.

Within the CFO's office, we are also aligning our financial systems to accept Recovery Act data, perform analysis, and track the execution of Recovery Act plans so that senior management can monitor progress. Separate Treasury account symbols have been established to comply with requirements for tracking and reporting Recovery Act funding separately from existing Department funding. Project codes are being established in our accounting system as Recovery projects are approved by the Secretary. These efforts will all allow the Department to better

Department's reporting to Recovery.gov, which in turn will ensure the accountability and transparency for the American people which the President has promised.

The Department has taken several steps to ensure that all procurement vehicles incorporate a selection process that is fair and advances the President's long-term policy agenda. To ensure that all solicitations, contracts, and financial assistance awards comply with OMB's Recovery Act requirements, we have issued standard language for all these procurement instruments. We are also directing our contracting professionals to pay special attention to the content quality of specific areas, including clear scope definition, adequate documentation to support decisions, compliance with transparency requirements, and small business considerations.

In our efforts to ensure accountability, we have required each Headquarters program element, field office managers, and Field Chief Financial Officers to sign an "Acknowledgement of Management Accountability of Internal Controls." This document will serve as a commitment from management to maintain a strong internal control environment. The signed acknowledgements are required prior to any distribution of Recovery funds. The Department will require an additional assurance letter at the end of the fiscal year to support financial statement reporting. These policies and procedures will help ensure that we achieve the outcomes envisioned by the President and the accountability expected by our fellow Americans.

### **Loan Guarantee Program**

Title XVII of the Energy Policy Act of 2005 and the 2007 Energy and Water Appropriations Act authorized the Department of Energy to provide loan guarantees for advanced technology projects that avoid, reduce, or sequester anthropogenic greenhouse gas emissions or air pollutants. The GAO and Office of Inspector General have both identified issues with

management, accountability and transparency in this program. I am pleased to report to you this morning that the Loan Guarantee Program has made substantial progress over this past year, and Secretary Chu has directed us to accelerate the process significantly and deliver the first loans in a matter of months, while maintaining appropriate oversight and due diligence to protect taxpayers' interests. We are taking steps to reduce the cycle time from application to loan guarantee so that good projects are funded, with all due speed and due diligence. We have also taken steps to improve the Program's transparency and to attract quality projects that will result in environmental benefits, create jobs, and contribute to long-term economic growth and competitiveness. The Loan Guarantee Program is expanding its efforts to recruit and hire highly qualified personnel to complete the necessary project evaluation, environmental compliance, due diligence, credit underwriting, monitoring, and oversight activities. The Department is committed to managing the Loan Guarantee Program carefully to maintain the integrity and objectives of the program and to ensure that the taxpayers' interests are protected.

## **Conclusion**

Mr. Chairman and Members of the Subcommittee, at the Department of Energy we are committed to creating jobs by developing new, innovative ways to provide clean, reliable, and secure energy. Congress has vested the Department with significant responsibility under the Recovery Act. We have begun and will continue to institute a culture of transparency, accountability, integrity, and efficiency as we capitalize on our advances in science and technology to better manage the nation's energy resources and contribute to a competitive, growing, and environmentally sustainable U.S. economy.

testimony and I am happy to answer questions. Thank you.

**Congress of the United States**  
**House of Representatives**

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LAWRENCE J. BERRY  
STAFF DIRECTOR

October 31, 2012

**MEMORANDUM**

**TO:** Members, Committee on Oversight and Government Reform  
**FROM:** Majority Staff, Committee on Oversight and Government Reform  
**SUBJECT:** Update on Committee's Oversight of the DOE Loan Guarantee Program: New Emails Show President Obama, Senior Administration Officials Misled American People about Role of President and White House in Program

For over a year, the Committee has been conducting comprehensive oversight of the Obama Administration's Sec. 1705 green energy loan guarantee program, administered by the Department of Energy (DOE). The Committee held five hearings, sent dozens of letters, interviewed numerous current and former DOE officials, and reviewed hundreds of thousands of documents produced by DOE, loan recipients, individuals, and other organizations with a stake in the 1705 loan guarantee program.

DOE obligated \$14.5 billion to 26 projects before the loan program's termination in September 2011. Three of those projects (Solyndra, Beacon, and Abound) have already declared bankruptcy, and several others are facing serious financial difficulties. Twenty-two of these projects were rated below investment grade (junk) because of their bad credit quality.<sup>1</sup>

Since the first loan guarantee recipient declared bankruptcy (Solyndra, in September 2011), the Administration, particularly the President and Secretary Chu, has insisted that political cronyism played no role in the allocation of taxpayer funds in the program, despite substantial connections between numerous companies that received loan guarantees and friends, fundraisers and donors to President Obama and others in his Administration. The Administration has also attempted to deflect blame for the program's controversies, insisting that career bureaucrats at DOE made the decisions that led to the program's massive failures and losses. Most recently, President Obama personally assured the American people that decisions made in the loan program were "decisions, by the way, that are made by the Department of Energy, they have nothing to do with politics."<sup>2</sup>

<sup>1</sup> See "The Department of Energy's Disastrous Management of Loan Guarantee Programs," Staff Report, Committee on Oversight and Government Reform, March 20, 2012. Available at <http://oversight.house.gov/report/the-department-of-energy-s-disastrous-management-of-loan-guarantee-programs/>.

<sup>2</sup> President Barack Obama, interview with 9NEWS, October 27, 2012. Available at <http://www.9news.com>.

employees and contractors, many of which have been withheld by the Department of Energy for more than a year. This memo outlines key information the Committee has recently uncovered that suggests statements by the President and others in his Administration were misleading and that the White House, senior Administration officials, and President Obama himself played key roles in the Loan Guarantee Program.

### The Administration's Claim: "DOE Officials" Made All Decisions on Specific Loans

- On Friday October 26, 2012, President Obama told a local Denver, Colorado news anchor that decisions made in the loan program office are "decisions, by the way, that are made by the Department of Energy, they have nothing to do with politics."
- Secretary Chu, testifying before the House Oversight Committee in March 2012, said "we looked at the loans on their own merits." Testifying before the House Energy and Commerce Committee in November 2011, Secretary Chu said "I am aware of no communication from White House to Department of Energy saying to make the loan or to restructure."
- On October 30, 2011, White House Senior Advisor David Plouffe told Meet the Press' David Gregory "decisions about the loan program were made by career officials in the Department of Energy on the merits."
- Loan Program Office Chief David Frantz told the Committee "I have been with the program from its inception to today... not a single project has been brought forward, gone through the due diligence process, closed, and been awarded a loan guarantee with other than the pure merits of the project itself. There has been no, to the best of my knowledge, political coercion on any one of the single projects."

### Those "DOE Officials" Describe Repeated Decision Making by the White House

- From an email dated October 30, 2010 from DOE Loan Program Office (LPO) Credit Advisor Jim McCrea to LPO Executive Director Jonathan Silver:  

"I am growing increasingly worried about a fast track process **imposed on us at the POTUS level** based on this chaotic process that we are undergoing...by designing the fast track process and **having it approved at the POTUS level (which is an absolute waste of his time!)** it legitimizes every element and it becomes embedded like the 55% recovery rate which **also was imposed by POTUS.**" (Email #1, attached)
- From an email dated March 1, 2010 from David Schmitzer, DOE LPO Director of Loan Origination to LPO Credit Advisor McCrea and others:  

"Jonathan just said at our staff meeting that, **opposite the message received on Thursday, AREVA is now a "go" (seems on Friday POTUS himself approved moving it ahead).**" (Email #2, attached)

"You better let him know that WH wants to move Abound forward. Policy will have to wait unless they have a specific policy problem with Abound."  
(Email #3, attached)

- From an email dated September 9, 2010 from LPO Credit Advisor McCrea to DOE contractor Brian Oakley:

"Pressure is on real heavy on SF [Shepherds Flat] **due to interest from VP.**" (Email #4, attached)
- Lobbying White House and VP's Office Achieves Results: Officials at the Department of Interior remove obstacles to BrightSource Energy's Ivanpah project after the Office of Political Affairs and Vice President's office get involved
  - A May 23, 2011 email, drafted by BrightSource Energy CEO John Woolard for BrightSource Board Chairman John Bryson (who later became Secretary of Commerce) to send to White House Chief of Staff Bill Daley, states: "**This project is now at significant risk due to delays in permitting at the Department of Interior...** This project has been very high profile for the administration, President Obama highlighted it in his weekly address, Sec Salazar attended and spoke at the groundbreaking, and DOE has already spent \$400 million." (Email #5, attached)
  - An email dated May 25, 2011 from BrightSource CEO John Woolard stated "we are making good progress in DC. Whitehouse [sic] does seem to be very focused on this issue, **in fact it is being elevated through the office of political affairs as well as VP Bidens- so we are starting to get them focused on the massive political risk-** it helps that Bloomberg called Ivanpah "Obama's energy project" so it does have their attention." (Email #6, attached)
  - Two weeks later, in an email dated June 12, 2011, BrightSource staff informed the company's Board of Directors that the company got what it wanted from the Department of the Interior: "The U.S. Fish and Wildlife Service issued their revised Biological Opinion, prompting the Bureau of Land Management to issue a new notice to proceed allowing continued construction at Ivanpah units 2 and 3." (Email #7, attached)

- **DOE officials were aware of Senate Majority Leader Harry Reid's tough reelection in 2010 and moved projects that were important to Senator Reid forward.**
  - In a December 5 2009 email, Loan Program Office Senior Credit Advisor Jim McCrea forwarded an article about Senator Reid's reelection campaign to LPO contractor Paul Barbian and stated: "Since this is not going to go into the DOE, and just to be clear, the translation is: **Reid may be desperate. WH may want to help. Short term considerations may be more important than longer term considerations and what's a billion anyhow?**" (Email #8, attached)
  - In a May 4 2010 email, LPO Executive Director Jonathan Silver wrote in an email "I need some stats on how many projects we have funded or have in DD [due diligence] as a percentage of totals. **Reid is constantly hit at home for not bringing in the federal dollars.**" (Email #9, attached)
  - Throughout 2010 LPO emails indicate that projects in Nevada were prioritized because they were "high profile," "tied to larger events," or because they had Senator Reid's support. **These projects included the \$343 million SWIP project (Email #10, attached), the \$98.5 million Nevada Geothermal project (Email #11, attached), and the \$737 million SolarReserve Tonopah project (Email #12, attached).**
- **Secretary Chu personally issued orders to prioritize the Unistar project, a project favored by House Majority Leader Steny Hoyer.** Constellation Energy and Electricite de France (EDF), entered into a joint venture, UniStar, seeking a loan guarantee to create a new nuclear reactor at the Calvert Cliffs, Maryland plant.
  - Jonathan Silver wrote to Secretary Chu's Chief of Staff Brandon Hurlbut in a December 10, 2010: "since aldy [White House staffer Joe Aldy] personally promised the edf management group [one of the sponsor's of the Unistar loan guarantee project] that he would lead an inter-agency review of this topic, we should tell him that he should be the one to call and deliver the news." (Email #13, attached)
  - A series of emails from May 25, 2010 through June 4, 2010 between McCrea and other DOE officials state "**there has been a commitment from S1 [Secretary Chu] to Steny Hoyer on this.** Nothing like over committing and under delivering." (Email #14, attached)
  - A second email specifies that "DOE has made political commitment to get Unistar through approval process by 6/15." The pressure stays on, as a third emails states, "**Just came down from the Secretary's office. He is adamant that this transaction is going to OMB by the end of day.**" (Email #15, attached)



issue like this, I would refuse to sign the credit paper and refuse to send it to OMB tomorrow but given the direct order I was personally given by S1[Secretary Chu]..." (Email # 16, attached)

### **Administration Claims Decisions Were Made "On the Merits", But Home Visits and Dinner Parties for Loan Guarantee Applicants Suggest Cozy Relationships**

- Several months before Brightsource received a \$1.6 billion loan guarantee, the company's CEO, John Woolard, came to Washington. On November 10, 2011, Woolard emailed Jonathan Silver, Executive Director of the Loan Program, "Thanks for offering to meet at your house tomorrow morning. It looks like I land at Dulles at 7:20am – can you please send your address or let me know if it works out better for me to just land and grab a hotel for run/shower and meet later?" Silver responded and gave Woolard his home address, adding "C[o]me anytime. Guest bedroom is ready. I'll be back from my breakfast at 9:30." (Email #17, attached)
- According to a September 2011 email, in January of 2011, while Brightsource's application was still pending, Mr. Silver and his wife, Melissa Moss, hosted a dinner party at their Georgetown home for John Bryson, then-Chairman of the Board at Brightsource. After Mr. Bryson was later appointed by President Obama as U.S. Secretary of Commerce, Mr. Bryson fondly remembered the dinner as "a gathering of very experienced, smart, and savvy DC people." (Email #18, attached)

### **Conclusion**

Contrary to the Administration's assertions, the loan program's failure cannot be isolated to the Department of Energy Loan Program Office, or to the Department of Treasury or the Office of Management and Budget. **Over 150 emails are enclosed with this memorandum.** The attached emails demonstrate that non-political, career Department of Energy employees felt political pressure from sources as high as the President, Vice President, Secretary Chu and senior White House officials. The attached emails also demonstrate that infighting between agencies and mismanagement by the White House resulted in a breakdown of due diligence that ended up wasting billions of taxpayer dollars.

Please see [Appendix I \(http://l.usa.gov/Va4IL0\)](http://l.usa.gov/Va4IL0) for emails referenced above in this memorandum, and [Appendix II \(http://l.usa.gov/S13hou\)](http://l.usa.gov/S13hou) for other related emails. If you have any questions, please contact Committee staff at 5-5074.





# Electric vehicles – International initiatives and best practices

VBO-FEB Colloquium –  
Voertuigen van de Toekomst

Yves Bonnefont

Brussels EXPO, Brussels

20 January 2011



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# Chu Says Backing Prologis Had 'Nothing to Do With Solyndra'

By 28, 2012, 11:02 AM EDT

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Business Exchange

at

Brian Wingfield

is information on investigation in fourth paragraph.)

28 (Bloomberg) -- U.S. Energy Secretary Steven Chu, responding to a House investigation, said he didn't intervene to support a \$1.4 billion partial loan guarantee for a Prologis Inc. solar-power project as a way to aid failing Solyndra LLC.

Chu said he supported the plan to install solar panels on warehouse roofs in 28 states because of its business model that included financing from private investors.

Chu said nothing to do with Solyndra," Chu told reporters today at an energy conference near Washington in suburban Maryland.

Republicans on the House Energy and Commerce Committee asked the Obama administration official to explain links between San Francisco-based Prologis and Solyndra, which sought creditor protection in September, two years after receiving a \$535 million U.S. loan guarantee. Solyndra was to be the only solar manufacturer in the first phase of Prologis's initiative, known as Project Amp, according to a letter to Chu from the panel.

Committee leaders want to know whether Chu helped Prologis secure its U.S. backing in order to prop up Solyndra. The Fremont, California, company had already filed for bankruptcy protection when the Energy Department gave Prologis, a real-estate investment trust, its loan guarantee in September. Solyndra was no longer a supplier when Prologis won its award.

Project Amp, which has been slated by the Solyndra bankruptcy, is being funded by Prologis and its partners, which include NRG Energy Inc. of Princeton, N.J., and Bank of America Corp. of Charlotte, North Carolina, James Larkin, a Prologis spokesman, said in an e-mail. The loan guarantee provides backing for the project.

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ents. The intent was for loans to spur development of vehicle technologies that would result in significant improvements in gas mileage over models they replaced. Fuel efficiency has become all the more relevant because fuel-efficiency standards were raised from 20.7 miles per gallon in 2008 to 24.8 miles per gallon in 2011 to a target of 54 miles per gallon by 2025.

At Obama's emphasis on promoting cleaner cars, only \$8 billion was authorized by Congress for the A.T.V.M. program has been a project of \$50 million gaining approval in the last two years. In the absence of federal approvals, it is unclear whether any car loan applications have been considered.

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## Solyndra Is Blamed as Clean-Energy Loan Program Stalls



Fabrizio Costantini for The New York Times

Michael F. Donoughe, chief operating officer of Bright Automotive, which withdrew its application for a government loan and is now shutting down operations to produce a hybrid delivery van.

By BILL VLASIC and MATTHEW L. WALD

Published: March 12, 2012

More than \$16 billion in loans authorized five years ago by Congress to develop [fuel-efficient](#) vehicles has yet to be disbursed, with applicants for the money complaining that the Energy

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Fabrizio Costantini for The New York Times  
After Bright Automotive decided to shut down its operations, it held a meeting on Michigan unemployment benefits.

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loans," said William Santana Li, chief executive of Carbon Motors, which on Wednesday dropped its \$310 million application to build police cars with diesel engines that use 40 percent less fuel than current models.

Echoing other companies that were denied loans or have withdrawn their applications, Mr. Li said that in recent months federal officials had repeatedly altered the terms of the possible loans. Last month, Chrysler withdrew its application for \$3.5 billion in loans — after three years of negotiations — because the government kept raising the amount of collateral required, company officials said.

"I don't want any favors," Sergio Marchionne, the Chrysler chief executive, said before the withdrawal. "I just don't want to be mistreated."

Energy Department officials declined to discuss specific loan requests because of confidentiality agreements, but they denied that the political fallout of Solyndra's bankruptcy was an issue.

"It's not unusual for terms to continually shift and change and evolve as a negotiation moves forward," said Damien LaVera, a department spokesman. "It's a constantly evolving process from the day they apply to the day they close their loans."

Supporters of the program have expressed disappointment with the rash of withdrawals.

"It's unfortunate that more companies have not been approved recently," said Senator Debbie Stabenow, Democrat of Michigan. "We are looking at options to ensure that the initiative will continue to help manufacturers create advanced technology jobs in America."

Applicants for the loans, big and small, said the department had inexplicably altered financial terms of pending loans with no earlier hint that the applications might be in jeopardy. The consequences have been dire for Bright Automotive, a start-up in Michigan that withdrew its application last month. It is shutting down operations to produce a plug-in hybrid delivery van after energy officials suddenly demanded that the

Carbon Motors officials said they had been assured their application to build a new plant, and create an estimated 1,500 jobs, was nearing approval.

"We are outraged by the actions of the DOE," said William Santana Jr., Carbon Motors' chairman and chief executive officer. "In failing to deploy the tax dollars that Congress allocated for the creation of advanced technology manufacturing jobs in the U.S., the DOE [lean car] program represents a glaring failure of the Obama administration to create jobs that are clearly within its power to create."

President Obama made government investment in clean energy companies an early hallmark of his administration, including a [\\$2.5 billion loan program](#) to support the manufacture of fuel-efficient and electric cars and fleet trucks. The Advanced Technology Vehicle Manufacturing program had been started under President George W. Bush, but gained new life under Obama with a major appropriation from Congress.

Department of Energy spokesman Damien LaVern said in a prepared statement Wednesday that the department was honoring its dual missions in considering Carbon's application — supporting innovation and clean vehicles but at the same time ensuring government loans will be repaid.

"Over the last two and a half years, the Department has worked with Carbon Motors to try to negotiate a deal that supported their business while protecting the taxpayers," the statement said. "While we were not able to come to an agreement on terms that would protect the taxpayers, we continue to believe that Carbon Motors is an innovative company with an interesting project and we wish them luck."

The DOE in 2009 approved [green car loans](#) worth nearly \$8.5 billion under the program for four companies, but since has approved just one \$50 million loan. (The bulk of the early money went to Ford Motor Co. — \$5.9 billion — to retrofit assembly lines for fuel-efficient cars.)

That leaves roughly \$16.5 billion remaining from the amount Congress authorized for loans for advanced technology vehicles. LaVern said 10 companies continue to seek program funding.

Carbon Motors officials blame the department's decision to turn its project down — and failure to approve any recent loans — on skittishness in the wake of the failure of [Solyndra](#). The now-shattered solar firm won a \$533 million federal loan in the first two months of the Obama administration despite staff concerns about a rushed process and the company's questionable financial prospects.

"They're sitting on billions of dollars," Li said.

Energy Secretary Steven Chu [was in Indianapolis](#)

on Monday, and said he supported the Carbon Motors project but needed to be careful the loan was repaid.

Last week, Connorsville Mayor Leonard Urban told local reporters he was trying to get a face-to-face meeting with Chu to stress the importance of the project to his community.

"I would tell Secretary Chu we deserve that. We have put millions into it ourselves, and 33 months of our time," Urban said.

Carbon, whose officials say they plan to proceed with their project, is the [second company](#) to recently leave the green-car program. Bright Automotive announced last month that it was shutting down, saying it had run out of money trying to meet the department's increasing requirements.



# INTERVENED IN \$1.4 B LOAN TO PROP UP SOLYNDRA, REPUBLICANS ALLEGE



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BY: [CJ Ciaramella](#) - February 17, 2012 3:47 pm

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Department of Energy Secretary Steven Chu may have personally intervened in a \$1.4 billion partial loan guarantee in an effort to help floundering solar company Solyndra, Republicans on the House Energy and Commerce Committee alleged in a letter Friday.

Solyndra would ultimately declare bankruptcy on Aug. 31, 2011, putting the DOE's loan program in Republican crosshairs.

In the letter to Chu, Republicans say they have documents revealing Solyndra's involvement in Prologis' project was "a significant factor in negotiations between DOE and Solyndra relating to a possible second restructuring of the loan guarantee in August 2011, as well as the closing of the Project Amp loan guarantee."

The letter also quotes a June 17 email from a Solyndra employee claiming Chu personally intervened to secure the Prologis loan.

"[O]n three occasions this week he thought that the [Project Amp] deal was dead, but Secretary Chu personally pulled it off," the email reads. "Chu shared with the team that this deal went to higher levels in the Obama Administration to gain approval than any other transaction in the Loan Guarantee Program, and that he personally committed to seeing it through to a successful conclusion."

The Energy Department disagreed with the committee's characterization.

"Secretary Chu strongly supported Project Amp because it will be the largest rooftop project in U.S. history and is expected to generate enough clean, renewable electricity to power over 88,000 homes while supporting at least a thousand jobs all

disagreement between the DOE loan program and other agencies about the number of megawatts the project should support and how long the installation period should be.

Project Amp, when completed, will be the largest rooftop solar generation project in the world. It has attracted significant private funding, and the businesses participating in the project include Bank of America, Merrill Lynch, and NRG Energy.

But the Energy Department's rebuttals will likely not deter House Republicans from their investigation, which has been going on for more than a year. Committee sub-chair Rep. Cliff Stearns said the documents raise even more concerns about the loan program.

"Documents obtained by the Committee indicate that DOE had some hesitation in approving the loan guarantee and that Secretary Chu intervened on behalf of Project Amp," Stearns said in a statement. "This brings up many questions, including if this was an attempt to support the faltering Solyndra since it occurred during discussions over the second restructuring of the Solyndra loan guarantee."

"It is astonishing that DOE actively negotiated a plan to risk even more taxpayer money to prop up Solyndra at all costs," Stearns continued.

The House Energy and Commerce Committee set a Feb. 24 deadline for the requested documents.

That goal assumed that the Volt would become the industry leader and that GM would have produced 505,000 Volts by then. Another mainstay of the president's electric-car plans, Fisker Automotive's Nina plug-in, is also on hold. The federal government is not advancing new loan payments because Fisker didn't produce and sell as many of its first-generation cars as it promised.



Reuters

General Motors will temporarily halt production of its plug-in hybrid and lay off 1,300 workers for five weeks this spring.

The government has made [several investments to promote the electric car industry](#), including granting GM \$105.9 million to help it produce battery packs for the Volt, and \$151.4 million in a grant for LG Chem to produce battery cells for the Volt. The government also gives buyers of electric cars a tax credit.

The company said on Friday it will halt production of the Volt and lay off about 1,300 workers at its Hamtramck, Mich., factory over the next couple of months. The company sold just 7,700 Volts last year, below its 10,000-car target, which was already reduced from 15,000.

GM initially set a goal of selling 45,000 Volts in the U.S. in 2012, but the company needs to work through inventory it built up, as cars are not being sold as quickly as hoped.

The Volt, together with Nissan's all-electric Leaf, were the first mass-produced cars running on an electric drive to be introduced in the U.S., in January 2011. They were the flagship cars for this budding industry, and to have one halt production is a significant stumble.

The Chevy Volt, some analysts predicted, would be more appealing to consumers than the Nissan Leaf, because it can run on both batteries and on gasoline, preventing chances of being stranded if the battery taps out. It costs \$40,000 before the tax credit of \$7,500.

The Volt was ahead of the Leaf in the past few months in sales, and hit monthly sales

by [Wynton Hall](#)

Rep. Cliff Stearns (R-Fl.) wants answers from Energy Secretary Steven Chu about documents that appear to indicate that Mr. Chu personally intervened to help secure a \$1.4 billion partial loan guarantee for a large-scale rooftop solar project known as [Project Amp](#) that was to be supplied equipment by the sinking ship that was Solyndra.



"It is astonishing that DOE actively negotiated a plan to risk even more taxpayer money to prop up Solyndra at all costs," said Rep. Stearns.

In his role as Chairman of the House Energy and Commerce Committee's Subcommittee on Oversight and Investigations, Rep. Stearns sent Sen. Chu a [letter](#) inquiring why the Energy Secretary would have helped put even more taxpayer money at risk when it was clear Solyndra was yet another failed green energy scheme, particularly since the Department of Energy itself seemed squeamish about approving the loan.

Project Amp is a large-scale rooftop energy generation project using solar panels on commercial facility rooftops to generate electricity for sale to utilities and power purchasers. The panels for first phase of Project Amp were to be sole sourced from the failing Solyndra, Inc. Documents obtained by the Committee indicate that DOE had some hesitation in approving the loan guarantee and that Secretary Chu intervened on behalf of Project Amp. This brings up many questions, including if this was an attempt to support the faltering Solyndra since it occurred during discussions over the second restructuring of the Solyndra loan guarantee.

According to Rep. Stearns letter, a Solyndra employee email suggests that, indeed, Mr. Chu was part of a Herculean effort to craft a deal that "went to higher levels in the Obama Administration".

In a June 17, 2011 email, a Solyndra employee shared what he had learned from a B.A.M.F. [Bank of America Merrill Lynch] senior investment banker who took part in the Project Amp negotiations with DOE, stating that, "[O]n three occasions this week he thought that the [Project Amp] deal was dead, but Secretary Chu personally pulled it off. Chu shared with the team that this deal went to higher levels in the Obama Administration to gain approval than any other transaction in the Loan Guarantee Program, and that he personally committed to seeing it through to a successful conclusion." Further, the minutes of the June 18, 2011, DOE Credit Review Board for Project Amp stated that



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By EDWARD MORRISSEY, The Fiscal Times

March 15, 2012

Earlier this month, Energy Secretary Steven [Chu testified before](#) Congress after a series of bankruptcies from companies floated by green-tech stimulus loans. Rep. Paul Brown (R-GA) asked Chu what kind of grade he would give himself as a steward of public funds. Chu replied, "There's always room for improvement, maybe an A-."

A new report from the [Government Accountability Office](#) shows that massive grade inflation has struck the Obama administration. The GAO looked at the handling of \$30 billion outstanding in loan guarantees and future commitments and discovered that the DOE rarely follows its own written procedures for vetting and auditing applications. In fact, in many cases, the Loan Guarantee Program (LGP) couldn't even find the data managers needed to administer the loans properly:

"When GAO requested data from the LGP on the status of these applications, the LGP did not have consolidated data readily available and had to assemble these data over several months from various sources. Without consolidated data on applicants, LGP managers do



After once touting Solyndra as a success story, President Obama sought to distance himself from the now-bankrupt and scandal-plagued manufacturer of solar panels, blaming Congress and China for the debacle instead of accepting responsibility. Critics of the administration promptly blasted the comments.

"Obviously, we wish Solyndra hadn't gone bankrupt," Obama *said* during a radio interview about the company he visited in 2010 to praise the government's half-baked subsidy program. "Part of the reason they did was because the Chinese were subsidizing their solar industry and flooding the market in ways that Solyndra couldn't compete."

It was not just China though, according to Obama. "But understand: This was not our program, per se," he continued. "Congress — Democrats and Republicans — put together a loan guarantee program because they understood historically that when you get new industries, it's easy to raise money for startups, but if you want to take them to scale, oftentimes there's a lot of risk involved, and what the loan guarantee program was designed to do was to help startup companies get to scale."

Of course, it is true that Congress authorized the unconstitutional "stimulus" bill to further subsidize "green" ventures that investors did not find worthy enough to finance. It is also a fact that the communist dictatorship ruling mainland China — to its own economic detriment — is subsidizing production of solar panels, as are other governments around the world.

But according to critics of the administration and its highly politicized program doling out tax money to favored companies, the President must accept responsibility for the fiasco. "We can see the positive impacts right here at Solyndra," Obama claimed in May of 2010. "Less than a year ago, we were standing on what was an empty lot. But through the [stimulus] Recovery Act, this company received a loan to expand its operations."

Then he boasted of how successful his schemes would be. "This new factory is the result of those loans," he observed. "Before the [stimulus] Recovery Act, we could build just 5 percent of the world's solar panels. In the next few years, we're going to double our share to more than 10 percent." In a 2009 White House e-mail released to Congress, administration officials even claimed Solyndra would be key in "supporting the president's manufacturing strategy."

Unfortunately for taxpayers, who forked over more than half of a billion dollars for Obama's failed solar power scandal, Solyndra fired all of its employees and declared bankruptcy in August of last year. The public will almost certainly never recover its ill-spent funds.

Plus, the controversy is about more than just one failed company — which happened to be backed by major Obama campaign contributor George Kaiser — receiving federal funds before going bankrupt and leaving taxpayers holding the bag. It is about the Constitution, the free market, and a never-ending parade of government waste.

The President's remarks are "just another example of Obama saying anything to deflect from his failed policies," Republican Party spokeswoman Kirsten Kukowski was *quoted* as saying by USA Today. "He was happy to tout Solyndra two years ago when he thought it was helpful to him but now that it's failed and cost taxpayers millions of dollars it's someone else's fault."

More than a few Democrats are upset, too. And even the Washington Post called out Obama for the

WASHINGTON – The [Department of Energy's](#) standards for loan guarantees — like the \$535 million it put up to back the now-bankrupt Solyndra LLC — are as high or higher than any in the private sector, a government watchdog reported Monday.

The problem, the [Government Accountability Office](#) said, is that the DOE may not be following its own standards. And missing or incomplete steps in the review process could lead the department to make riskier loans than it otherwise would.

The non-partisan congressional investigative agency said the [Energy Department](#) "skipped applicable review steps" and that poor documentation leaves DOE "open to criticism that it exposed taxpayers to unacceptable financial risks."

**STORY:** [USA TODAY](#) review uncovers support for energy loans

By David Goldman, AP

Secretary of Energy Steven Chu tours the Vogtle nuclear power plant during a visit Feb. 15 in Waynesboro, Ga.

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creditworthiness" of any specific loan guarantee. He said the department is deploying an improved management system.

The loan guarantee program, first established by Congress in 2005, has come under fire from Republicans after solar panel maker Solyndra ran into financial trouble.



DO says, the Energy Department has guaranteed \$15.1 billion in loans to another \$15 billion.

to the GAO, a DOE official said its findings might have been valid if that it's wrong to say that "oversight was in any way ineffective." "I am" succeeded in making an unprecedented level of clean energy investments, maintaining standards that are as high or higher than major financial institutions. David Frantz, the acting director of the program.

author of the GAO report, Frank Rusco, noted that the DOE didn't update until last October — the month after Solyndra declared bankruptcy — that the applications were still missing documentation as late as February.

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# Opinion: The problems with the DOE green car startup loans

By [Katie Fehrenbacher](#) Mar. 8, 12:26pm PT [2 Comments](#)

sometimes promising — sometimes not promising — electric car or alternative vehicle startup moves to the late stages of the DOE's green car loan award process. The startup seems to be so sure they will get the loan that they manage their business around it, and then the DOE either places the company in award purgatory — a permanent holding pattern — or ends up denying the loan. A lot of times, the result of this situation has been that a company closes shop or desperately struggles to look for other sources of funding.

Over the past couple of years, this type of scenario has happened for electric car maker Think Automotive's U.S. arm (which went bankrupt), electric car company Coda Automotive, Aptera ([which shut down](#)), plug-in hybrid van maker Bright Automotive ([which shut down](#)) and energy-efficient plastic car company Next Autoworks (formerly V-Vehicle, which shuttered its planned factory). Electric vehicle maker Fisker Automotive was awarded a loan, but was only able to draw down part of the loan after its first car was delayed significantly.



The latest example of this situation is when diesel car company called [Carbon Motors](#) was denied a \$310 million DOE loan [this week](#). Carbon Motors was [more vocal in its unhappiness](#) with the process than most of the other companies. Carbon Motors CEO William Santana Li said in a statement:

We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly-charged, election year environment.

Santana writes that the companies that engaged in the DOE green car loan process have “been caught for several years in a costly and extensive DOE due diligence process. Carbon Motors simply appears to be the last victim of this political gamesmanship.” Santana points to GM, Chrysler, Next Auto, Aptera, Bright Automotive and Carbon Motors as examples of companies that have “suffered through the horrendous DOE process.”

Bright Automotive was also pretty vocal about its unhappiness with the DOE loan process. Bright, which was developing its business around getting a \$150 million loan from the DOE, [sent a letter to the](#)



Created [under Section 136](#) of the Energy Independence and Security Act of 2007, the DOE's Advanced Technology Vehicles Manufacturing program, or ATVM (which I'm calling the green car loans), holds authority to award up to \$25 billion in direct loans. Projects can include re-equipping or expanding existing manufacturing facilities, establishing new plants in the U.S. or dealing with the engineering integration associated with these types of projects. Under the program rules, ATVM-funded vehicle projects from new companies have to deliver fuel economy improvements of at least 25 percent compared to the average for that vehicle class in 2005.

[By 2010](#) the ATVM program had finalized more than \$2 billion in loan agreements for three car companies and awarded a nearly \$50 million conditional loan commitment to one more. The DOE awarded loans to electric car startup Tesla Motors, Ford and Nissan North America in its first round of awards (on a conditional basis), back in June 2009. Plug-in hybrid vehicle developer Fisker Automotive scored a \$528.7 million conditional commitment in September 2009. But in the follow year and a half, while the program had much more money to allocate, the DOE has mostly held off on awarding the rest of the ATVM loans save for a few small loans to companies.



[By 2011](#) it became clear that the DOE had to be cautious about offering loans to risky green car and clean energy companies. The infamous bankruptcy of Solyndra, one of the DOE's first loans from another green program, was a major political firestorm for the Obama administration and is still being mentioned in campaign ads in this election year. Battery company Ener1 received a \$118 million grant from a different DOE battery program in the [summer of 2009](#) and declared bankruptcy this year. Flywheel maker Beacon Power also [received a loan guarantee](#) and declared bankruptcy (though it was able to pay off its loan and was bought by a private equity firm recently). Directly out of the ATVM program, the DOE decided to halt the allocation of the bulk of Fisker Automotive's loan after its first car was delayed.

As a result of some of these companies' struggles, it seems clear that the DOE pulled back from awarding and finalizing the result of the loans from the ATVM program. But about a dozen of these

**Miscommunications:** The DOE doesn't seem to have communicated clearly with the green car startups about their realistic chances of actually getting a loan from the program. Particularly for the companies that made it to the end stages of receiving the awards. The former loan chief Jonathanavid (before he resigned) several times that there were more companies that received DOE conditions commitments than there were companies that would receive the finalized loan. But still there were almost a half dozen companies that seem utterly shocked when the loan doesn't actually go through, and end up closing shop and laying people off.

**#WhatdoyoumeanIdontgetaloan!:** The startups needed to be more realistic when working with DOE and knowing how the DOE works. Of course the DOE makes moves based on politics in the run-up to an election year. Companies need a plan B on funding, and should also pay to work with CEOs experienced with working with public-private partnerships. Some of the companies do have CEOs — such as Coda and Fisker — and are still around today.

**Early due diligence could have been better:** It seems as though the DOE made some awards at the beginning of the ATVM loan process that weren't really that great. Electric car maker Fisker Automotive is a really interesting company with a gorgeous car, but I don't think they were in a good position to receive that sizable loan so far in advance of their first car being produced (almost two years). The DOE seems to have learned to be more cautious a while later, but by then it already had a long line of loans for eager startups in its queue.

**The whole premise of the program?:** Should green car startups be in the position to receive sizable loans from the DOE? Well, look at the sole green car startup that seems to be doing well with the program: Tesla Motors. Does Tesla's success justify including startups in the program? Yeah, maybe. What do you think?



February 28, 2012

Secretary Steven Chu  
U.S. Department of Energy  
Washington, D.C.

Dear Secretary Chu,

Today Bright Automotive, Inc will withdraw its application for a loan under the ATVM program administered by your department. Bright has not been explicitly rejected by the DOE; rather, we have been forced to say "uncle". As a result, we are winding down our operations.

Last week we received the fourth "near final" Conditional Commitment Letter since September 2010. Each new letter arrived with more onerous terms than the last. The first three were workable for us, but the last was so outlandish that most rational and objective persons would likely conclude that your team was negotiating in bad faith. We hope that as their Secretary, this was not at your urging.

The actions – or better said "lack of action" -- by your team means hundreds of great manufacturing and technical jobs, union and non-union alike, and thousands of indirect jobs in Indiana and Michigan will not see the light of day. It means our product, the Bright IDEA plug-in hybrid electric commercial vehicle, will not provide the lowest total cost of ownership for our commercial and government fleet customers, saving millions of barrels of oil each year. It means turning your back on a bona fide step forward in our national goal to wean America away from our addiction to foreign oil and its implications on national security and our economic strength.

In good faith we entered the ATVM process, approved under President Bush with bi-partisan Congressional approval, in December of 2008. At that time, our application was deemed "substantially complete." As of today, we have been in the "due diligence" process for more than 1175 days. That is a record for which no one can be proud.

We were told by the DOE in August of 2010 that Bright would get the ATVM loan "within weeks, not months" after we formed a strategic partnership with General Motors as the DOE had urged us to do. We lined up and agreed to private capital commitments exceeding \$200M – a far greater percentage than previous DOE loan applicants. Finally, we signed definitive agreements with state of the art manufacturers. GM General that would have produced mass

your team asked for another new requirement, we delivered with speed and excellence.

Then, we waited and waited; staying in this process for as long as we could after repeated, yet unmet promises by government bureaucrats. We continued to play by the rules, even as you and your team were changing those rules constantly – seemingly on a whim.

Because of ATVM's distortion of U.S. private equity markets, the only opportunities for 100 percent private equity markets are abroad. We made it clear we were an American company, with American workers developing advanced, deliverable and clean American technology. We unfortunately did not aggressively pursue an alternative funding path in China as early as we would have liked based on our understanding of where we were in the DOE process. I guess we have only ourselves to blame for having faith in the words and promises of our government officials.

The Chairman of a Fortune 10 company told your former deputy, Jonathan Silver, that this program “lacked integrity”; that is, it did not have a consistent process and rules against which private enterprises could rationally evaluate their chances and intelligently allocate time and resources against that process. There can be no greater failing of government than to not have integrity when dealing with its taxpaying citizens.

It does not give us any solace that we are not alone in the debacle of the ATVM process. ATVM has executed under \$50 million of transactions since October of 2009. Going back to the creation of the program, only about \$8 billion of the approved \$25 billion has been invested. In the meantime, countless hours, efforts and millions of dollars have been put forth by a multitude of strong entrepreneurial teams and some of the largest players in the industry to advance your articulated goal of advancing the technical strength and clean energy breakthroughs of the American automotive industry. These collective efforts have been in vain as the program failed to finance both large existing companies and younger emerging ones alike.

Our vehicle would have been critical to meet President Obama's stated goal of one million plug-in electric vehicles on the road in 2015 and his commitment to buy 100 percent alternative fueled vehicles for the Federal Fleet. So, we are not the only ones who will be disappointed.

The ineffectiveness of the DOE to execute its program harms commercial enterprise as it not only interfered with the capital markets; it placed American companies at the whim of approval by a group of bureaucrats. Today at your own ARPA-E conference, Fred Smith, the remarkable leader of FedEx, made the compelling case to reduce our dependence on oil; a product whose price is manipulated by a cartel which has caused the greatest wealth transfer in our history from the pockets of working people and businesses to countries, many of whom are not our allies. And yet, having in hand a tremendous tool for progress in this critically strategic battle -- a tool that drew the country's best to your door -- you failed not only in the deployment of

a particularly sad day for our employees and their families, as well as the families of our partners. We asked our team members on countle-ssly around the clock whenever yet another new DOE requirement came we could respond swiftly and accurately. And, we always did.



er  
Mike Donoughe  
COO

# Is the U.S. government sending electric vehicle technology to China? Sort of.

March 2, 2012

tags: "[electric vehicle](#)", [Advanced Technology Vehicles Manufacturing](#), [automotive](#), [battery](#), [Boston Power](#), [Bright Automotive](#), [China](#), [Department of Energy](#), [ford](#), [Nissan](#), [Solyndra](#)

The U.S. government is sending alternative fuel vehicle technology to China. Okay, that is a bit strong. But, the lack of funding for companies with such technology, and the strict criteria recipients of loans from the Department of Energy Advanced Technology Vehicles Manufacturing program must meet, is forcing U.S. companies to look to China for funding. The ultimate result is a technology transfer to China forced in part by political pressure. Pretty ironic.

The most recent example is Bright Automotive [www.brightautomotive.com](http://www.brightautomotive.com), a company in the mid-western state of Indiana that aimed to manufacture plug-in hybrid electric vans for fleets.



Bright aimed to market its electric van to fleets, but the world's largest fleet is the Chinese government's.



On February 28, Bright closed its doors. Its CEO Reuben Munger and COO Mike Donoughe wrote accusatory letters to the Department of Energy Secretary Stephen Chu. [http://www.greencarreports.com/news/1073497\\_startup-bright-automotive-shuts-down-slams-doe-loan-process](http://www.greencarreports.com/news/1073497_startup-bright-automotive-shuts-down-slams-doe-loan-process)

A few excerpts from their letters (copies of which were obtained by me and anyone else who asked Bright): In a Feb 23 letter pleading for the DOE to make a decision on Bright's application for a \$314 loan from the DOE: "Unfortunately, irrationality and petty politics have paralyzed your agency at a time America needs you most."

And a Feb 28 letter: "The ineffectiveness of the DOE to execute its program harms commercial enterprise as it not only interfered with the capital markets; it placed American companies at the whim of approval by a group of bureaucrats."

The Bright executives conclude: "Because of ATVM's distortion of U.S. private equity markets, the only opportunities for 100 percent private equity markets are abroad."

"We unfortunately did not aggressively pursue an alternative funding path in China as early as we would have liked based on our understanding of where we were in the DOE process," they say.

Guess they should have grabbed the golden ring when it was offered. And who's to say they won't still turn to China for funding? The company may have closed down, but the technology still exists. Of course the China funding was not a sure thing. What is a sure thing is that obtaining funding from Chinese companies and even the Chinese government seems a bit easier these days than getting a piece of the U.S. government's cash hoard.

The DOE's official response to the question of why the approval process for the Bright loan dragged on so long: "We understand that this is a difficult day for Bright Automotive and their workers. Over the last three years, the Department has worked with the company to try to negotiate a deal that supported their business while protecting the taxpayers. In the end, we were not able to come to an agreement on terms that would protect the taxpayers."

The Department of Energy Loan Program Office (LPO) [www.lpo.energy.gov](http://www.lpo.energy.gov) was established to (according to the DOE website) "work with private companies and lenders to mitigate the financing risks associated with building out commercial-scale clean energy projects, thereby encouraging the broader and more rapid growth of the sector." That would seem to indicate some appetite for riskier investments, but as you will read below, the DOE is not about risk taking. It is about getting a return on tax payers' dollars. Fair enough, but not much more than any commercial bank does.

The Advanced Technology Vehicles Manufacturing program [https://lpo.energy.gov/?page\\_id=43](https://lpo.energy.gov/?page_id=43) was set up under the LPO in 2007 (yes, that was President George W. Bush) and expanded by President Obama. Of its \$25 billion in funds, \$8.4 billion has been allocated so far. The recipients of the two largest loans don't seem too risky: Ford Motor Co. and Nissan North America Inc.

Why is it so tough for smaller companies to get a U.S. government loan? Politics plays a big part. The Obama administration has been lambasted for the failure of solar panel maker Solyndra Inc., a company that had obtained a \$535 million loan from the Department of Energy in 2009 (under a different program than the ATVM). [http://www.washingtonpost.com/solyndra-politics-infused-obama-energy-programs/2011/12/14/gIQA4HIIHP\\_story.html](http://www.washingtonpost.com/solyndra-politics-infused-obama-energy-programs/2011/12/14/gIQA4HIIHP_story.html)

election coming up in November, that isn't likely to change.

What are the some of the requirements for getting one of those DOE Advanced Technology Vehicles Manufacturing loan? The DOE does due diligence just as any investor would. And conducts a "competitive review similar to what applicants would find at banking financial institutions." And the company has to be pretty far along with its product already. The loan isn't "intended to finance research and development costs." Indeed, the product has to be ready to produce since the loan can "only be used to reimburse the applicant for (i) costs that are reasonably related to reequipping, expanding, or establishing a manufacturing facility in the United States or (ii) costs of engineering integration performed in the United States.

The Chinese government, and private Chinese companies looking for technology, faces no such conditions. Sure, private Chinese companies want to get a good return on investment. But they are in essence private equity investors with a big appetite for risk. As for the Chinese government, well, it is an authoritarian government after all. It can do what it wishes with its money. Sure, if Beijing chooses to invest billions in foreign companies and the investment is clearly specious, there could be some social unrest. But who can be bothered to protest against some special tax breaks?

When Boston Power [www.boston-power.com](http://www.boston-power.com) was also turned down in 2009 for a \$100 million DOE loan, it didn't close down. Boston Power turned to China, and landed \$125 million in funding in late 2011 from a combination of investors including GSR Ventures [www.gsrventures.cn/en/index.html](http://www.gsrventures.cn/en/index.html), a Silicon Valley company with ties to China. <http://green.autoblog.com/2011/09/22/boston-power-secures-125-million-in-funds-will-move-most-opera/>

GSR also negotiated substantial Chinese government support for Boston Power including low interest loans, grants, and financial and tax incentives. Boston Power is building a battery manufacturing plant, R&D center, and an engineering facility in China.

Though Boston Power says it will retain control of its intellectual property, let's get real. How can it do R&D, engineering, and manufacturing in China and not pass that knowledge on to Chinese engineers?

Other U.S. companies are skipping the U.S. government loan application process entirely and looking directly to China for funding. I've written about some of them in this column. The question, then, is what is the cost

# grade inflation at the Depart

arch 15, 2012 by Ed Morrissey

2

om two weeks ago? Rep. Paul Broun (R-GA) challenged Enn  
ade specifically on his stewardship of Department of Energy  
anted for the Loan Guarantee Program. After Broun recites  
done very well — and gives himself an A-minus.

and ultimately Energy Secretary Steven Chu. In the report released this week, the GAO's spot check of applications and loans granted and committed under the LGP — \$30 billion in all — shows systemic mismanagement, uncompleted reviews, missing documentation, and a process failure rate of 85% or more, emphases mine:

The Department of Energy (DOE) has made \$15 billion in loan guarantees and conditionally committed to an additional \$15 billion, but **the program does not have the consolidated data on application status needed to facilitate efficient management and program oversight.** For the 460 applications to the Loan Guarantee Program (LGP), DOE has made loan guarantees for 7 percent and committed to an additional 2 percent. The time the LGP took to review loan applications decreased over the course of the program, according to GAO's analysis of LGP data. However, when GAO requested data from the LGP on the status of these applications, **the LGP did not have consolidated data readily available and had to assemble these data over several months from various sources.** Without consolidated data on applicants, LGP managers do not have readily accessible information that would facilitate more efficient program management, and LGP staff may not be able to identify weaknesses, if any, in the program's application review process and approval procedures. **Furthermore, because it took months to assemble the data required for GAO's review, it is also clear that the data were not readily available to conduct timely oversight of the program.** LGP officials have acknowledged the need for a consolidated system and said that the program has begun developing a comprehensive business management system that could also be used to track the status of LGP applications. **However, the LGP has not committed to a timetable to fully implement this system.**

The LGP adhered to most of its established process for reviewing applications, but **its actual process differed from its established process at least once on 11 of the 13 applications GAO reviewed.** Private lenders who finance energy projects that GAO interviewed found that the LGP's established review process was generally as stringent as or more stringent than their own. However, GAO found that the reviews that the LGP conducted sometimes differed from its established process in that, for example, **actual reviews skipped applicable review steps.** In other cases, **GAO could not determine whether the LGP had performed some established review steps because of poor documentation.** Omitting or poorly documenting reviews reduces the LGP's assurance that it has treated applicants consistently and equitably and, in some cases, **may affect the LGP's ability to fully assess and mitigate project risks.** Furthermore, the absence of adequate documentation may make it difficult for DOE to defend its decisions on loan guarantees as sound and fair if it is questioned about the justification for and equity of those decisions. One cause of the differences between established and actual processes was that, according to LGP staff, they were following procedures that had been revised but were not yet updated in the credit policies and procedures manual, which governs much of the LGP's established review process. In particular, the version of the manual in use at the time of GAO's review was dated March 5, 2009, even though the manual states it was meant to be updated at least annually, and more frequently as needed. The updated manual dated October 6, 2011, addresses many of the differences GAO identified. Officials also demonstrated that LGP had taken steps to address the documentation issues by beginning to implement its new document management system. However, by the close of GAO's review, **LGP could not provide sufficient documentation to resolve the issues identified in the review.**

On 11 of 13 loan applications investigated by the GAO, they found that the DoE hadn't done the required work for reviewing and approving applications. That's an 85% failure rate. And more than three years into this program, even with the deficiencies identified, the DoE *still* hasn't fixed their problems. That kind of failure is more associated with an F-minus, not an A-minus.

Furthermore, as I note in my column for [The Fiscal Times](#), this comes from the same administration that loves to

their own money.

President Obama himself told a [Nevada town hall](#) in February 2010 that "tax dollars shouldn't be used to reward the very irresponsible lenders and borrowers who helped bring about the housing crisis." At least that was Obama's position until this month, when he announced a plan that would expand HAMP to include the [real-estate speculators](#) that helped inflate the housing bubble.

Almost exactly a year prior to the Nevada town hall, Obama gave a speech in Mesa, Arizona in which he castigated "dishonest lenders who acted irresponsibly, distorting the facts and dismissing the fine print at the expense of buyers who didn't know better."

Just one month ago, Obama spoke about the legal settlement with the banks that finally allowed long-pent-up foreclosures to move forward. In [his speech](#), Obama twice mentions irresponsible actions by lenders that hurt others who acted more responsibly. He specifically noted the robo-signing and other violations that drove the process off the rails and cost many people their homes:"In many cases, they didn't even verify that these foreclosures were actually legitimate. Some of the people they hired to process foreclosures used fake signatures on fake documents to speed up the foreclosure process. Some of them didn't read what they were signing at all."

Except for the fake signatures, that sounds like a pretty fair description of what the GAO found in its audit of the Department of Energy and the Loan Guarantee Program. With \$30 billion in taxpayer money at risk, the DOE under Steven Chu didn't bother to conduct the reviews it claimed it would on applications for loan guarantees, didn't keep records of what reviews they did accomplish, and signed off on loans with incomplete documentation and inadequate oversight of the risk. The result — perhaps [\\$6.5 billion immediately at risk](#), according to CBS, and possibly most of the \$30 billion.

Be sure to read it all. This GAO report should have heads rolling at the Department of Energy, especially that of Professor Chu, who demonstrated the most extreme case of grade inflation yet seen.

**Update:** [The Anchoress](#) asks, "remember when he wanted us all to paint our rooftops white, to save the planet?"

# Solyndra?

posted at 10:35 am on March 17, 2012 by Ed Morrissey

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Politico has a [big scoop](#) on the Solyndra story today, but Darren Samuelsohn doesn't *quite* connect the dots. The report focuses on a lighter moment — pardon the pun — in the embarrassment of the Obama administration over the solar-power firm's collapse. White Barack Obama highlighted the \$535 million loan to Solyndra in his January 2010 State of the Union speech, by the time January 2011 rolled around, the White House didn't want Solyndra anywhere near the next SOTU [\[see update\]](#):

[White House](#) staff knew enough about Solyndra's troubles in January 2011 to dismiss talk of inviting the company's executives into President Barack Obama's special State of the Union box, internal emails released Friday show.

The idea of seating [Solyndra](#) officials with Michelle Obama in the Capitol during the president's nationally televised speech came up around the same time that DOE was preparing a controversial change to the company's \$535 million federal loan guarantee, which wound up increasing the risk to taxpayers.

But Daniella Gibbs Léger, director of White House message events, batted down the idea of a [State of the Union](#) invite before it could be raised among her superiors. "Can't do Solyndra...they've run into some issues recently..." she wrote on Jan. 5, 2011.

The e-mail comes from a batch finally released to the House Energy and Commerce Committee, which has been looking into the Solyndra debacle and trying to overcome Obama administration stonewalling for months. That's not the only nugget in this new trove of material in the latest Friday night document dump from Obama's scandals, either. A month prior to that e-mail exchange, Obama's climate czar Carol Browner and her deputy exchanged e-mails that showed both despairing over Solyndra's financial condition:

hear Solyndra is in a severe liquidity crisis and we aren't likely given next doe loan? Banker,," Heather Zichal wrote. Browner's reply was quick: "Yep. Ugh"

familiar with the timeline of Solyndra's collapse and the loss of more than a half-billion taxpayer dollars, understand the significance of these e-mails. Just a few weeks later, [the Department of Energy announced Solyndra's loans](#) so that taxpayer money was subordinated to later investors, allowing \$500 million in new financing. That financing came from Obama campaign bundler George Kaiser without Solyndra's assets before taxpayers see one thin dime, which means that we won't see the money soon, if at all. The restructuring also either gave Solyndra sweetheart interest rates or protected the subordination, a move that the DoE and the White House have *never* explained.

Question raised is this: If the White House comms group and its climate czar both knew that Solyndra was in financial distress, and so much so that the comms group nixed having Solyndra execs attend the 2011 summit, then why did Obama and Energy Secretary Steven Chu agree to restructure the loan less than a year later? Such unfavorable terms? Solyndra's woes must have been common knowledge in the West Wing. If White House message events" to have that kind of wherewithal in advance of the January 2011 summit, then the decision to forge ahead with the restructuring that protected an Obama bundler while illegally subordinating taxpayer investment becomes much more curious.

need.

He didn't really intend this as a criticism of Darren, who does a good job of running down the details of the Solyndra story. The opening paragraph comes across as a little more critical than it might seem. I missed opportunity to link this to a decision that had more consequences than Darren brings up. His name wrong initially.

- [White House batted down State of the Union box seating for Solyndra. Update | Twitchy](#)
- [Latest Friday White House Document Dump Reveals Embarrassment Over Solyndra — Strokes of Candor](#)
- [Internal White House emails reveal deep concern, embarrassment over Solyndra](#)

## Comments

Heck, almost anyone is smarter than Obama, Chu, or Solyndra who has even an ounce of common sense and is not driven by sheer ideology.

lukjuj on March 17, 2012 at [10:40 AM](#)

Will bundlers get better health care under ObamaCare as well..?

d1carter on March 17, 2012 at [10:40 AM](#)

So the question raised is this: If the White House comms group and its climate czar both knew that Solyndra was an embarrassment, and so much so that the comms group nixed having Solyndra execs attend the 2011 SOTU in person, then why did Obama and Energy Secretary Steven Chu agree to restructure the loan less than a month later on such unfavorable terms?

FEC donation records, if they don't already have that answer, will before the end of this election cycle.

[Steve Eggleston](#) on March 17, 2012 at [10:40 AM](#)

And the main stream press ignores these facts once again, keeping taxpayers and reporters in the dark.

karenhasfreedom on March 17, 2012 at [10:41 AM](#)

This just in "The Smartest man on the planet" Not so much !!

stormridercx4 on March 17, 2012 at [10:42 AM](#)

So the question raised is this: If the White House comms group and its climate czar both knew that Solyndra was an embarrassment, and so much so that the comms group nixed having Solyndra execs attend the 2011 SOTU in person, then why did Obama and Energy Secretary Steven Chu agree to restructure the loan less than a month later on such unfavorable terms? Solyndra's woes must have been common knowledge in the West Wing for the "director of White House message events" to have that kind of wherewithal in advance of the January 25th speech. If so, then the decision to forge ahead with the restructuring that protected an Obama bundler's late investment while illegally subordinating taxpayer investment becomes much more curious.

And our ever-curious Fourth Estate will jump right on that to get those answers..... er, not so much.

Bitter Clinger on March 17, 2012 at [10:44 AM](#)

Will bundlers get better health care under ObamaCare as well..?

d1carter on March 17, 2012 at 10:40 AM

Hey, the bundlers will get to be appointed to staff the DEATH panels!!!

karenhasfreedom on March 17, 2012 at [10:47 AM](#)



Sounds like Daniella Gibbs Léger should be the President.

Bitter Clinger on March 17, 2012 at [10:47 AM](#)

I was smarter than Obama at thirteen when I constructed a working volcano from chicken wire, paper mache, baking soda and vinegar.

DHChron on March 17, 2012 at [10:50 AM](#)

Heck, almost anyone is smarter than Obama, Chu, or Solyndra who has even an ounce of common sense and is not driven by sheer ideology.

lukjui on March 17, 2012 at 10:40 AM

When you consider that global oil demand will grow by 50% in just over a decade, there's no lack of common sense in the government funding R&D for alternative sources of energy. By the time the price shock hits US consumers, there will be far too little time for the market to compensate (unless you actually believe the fairly tale that solar can scale quickly) without more energy sources for transportation.

However, the White House should never be involved in deciding which companies receive R&D funds. Even the Chinese know this.

bayam on March 17, 2012 at [10:51 AM](#)

The republican candidate should go for the throat on this one. They burned half a billion dollars of our money, gas is sky high and the administration just sits on his hands while the country suffers. This hits home home with everyone.

newportmike on March 17, 2012 at [10:51 AM](#)

"Can't do Solyndra... they've run into some issues recently. :(," she wrote on Jan. 5, 2011.

Its easy to be cute when you piss away other peoples money.

[rob verdi](#) on March 17, 2012 at [10:52 AM](#)

Just a few weeks later, the Department of Energy "restructured" Solyndra's loans so that taxpayer money was subordinated to later investors, allowing Solyndra to get \$75 million in new financing. That financing came from **Obama campaign bundler George Kaiser, who gets his money** out of Solyndra's assets before taxpayers see one thin dime, which means that we won't see that thin dime any time soon, if at all.

**why did Obama and Energy Secretary Steven Chu agree to restructure the loan less than a month later on such unfavorable terms?**

We will never know...

the\_nile on March 17, 2012 at [10:52 AM](#)

Obama forgot to pay his brain bill.

Maybe the world's largest pyramid scheme?

In either case, Carlo Pietro Giovanni Guglielmo Tebaldo Ponzi would be proud.

Give Constant Campaign Obama a few hundred thousand and you get a few million or half a billion later on down the road... until the cash runs out.

coldwarrior on March 17, 2012 at [10:53 AM](#)

Obama's so dumb he got this joke.

DHChron on March 17, 2012 at [10:55 AM](#)

Please, PLEASE, get the so called 'dumb' people back in charge.

The country can't take much more of the super geniuses that are running her into the ground.

jukin3 on March 17, 2012 at [10:56 AM](#)

What Obama and his tribe are doing makes Watergate look minor. Is there NOTHING this administration can do that will upset the public at large or get the MSM to really expose? Unbelievable display of lawlessness.

Elections have consequences.

steved95 on March 17, 2012 at [10:57 AM](#)

steved95 on March 17, 2012 at 10:57 AM

x2

screwauger on March 17, 2012 at [10:59 AM](#)

When you consider that global oil demand will grow by 50% in just over a decade, there's no lack of common sense in the government funding R&D for alternative sources of energy. By the time the price shock hits US consumers, there will be far too little time for the market to compensate (unless you actually believe the fairy tale that solar can scale quickly) without more energy sources for transportation.

However, the White House should never be involved in deciding which companies receive R&D funds. Even the Chinese know this.

bayam on March 17, 2012 at 10:51 AM

If you were correct, buggy whips would still be all the rage.

Fortunately for the rest of us who do not reside in your myopic fantasy where only government provides innovation (it demonstrably subsidizes yesterday's technologies over today's) it does not. Innovation is driven by the very market forces you deride.

Difficultas\_Est\_Imperium on March 17, 2012 at [11:02 AM](#)

Reading these email exchanges between Obummer's minions, I get the feeling that our country is being run by 16-year-old spoiled brats. Can you picture a professional campaigner using the word "buggy"?

[Wine\\_N\\_Dine](#) on March 17, 2012 at [11:03 AM](#)

"Solyndra was not as 'shovel ready' as we expected it to be. Ha ha ha...." ~ President Barack Obama during debate with 2012 GOP Presidential candidate.

[Rov Rogers](#) on March 17, 2012 at [11:06 AM](#)

**I think this is call "crony embezzlement"**

[J\\_Crater](#) on March 17, 2012 at [11:06 AM](#)

<http://www.youtube.com/watch?v=ecQAZoYhpJ8&t=66m57s>

<http://www.youtube.com/watch?v=pkX3xF-m-1Q>

[islandman78](#) on March 17, 2012 at [11:07 AM](#)

"I won"

Meaning: "Everyone else is a loser"

[BobMbx](#) on March 17, 2012 at [11:11 AM](#)

When you consider that global oil demand will grow by 50% in just over a decade

Drill baby drill! There is no excuse not to be energy independent.

[HotAirian](#) on March 17, 2012 at [11:11 AM](#)

So here we have Obama and company pandering to the 1%.

The Republicans need to bring this message to front and squash the Occupiers meme.

The hypocrisy and lying this administration gets away with is astounding.

[plutorocks](#) on March 17, 2012 at [11:14 AM](#)

DHChron  
your back! Hows Texas buddy?

[angrymike](#) on March 17, 2012 at [11:21 AM](#)

**H A R V A R D !**

[KOOLAID2](#) on March 17, 2012 at [11:22 AM](#)

So when is the indictment going to be served January 15 2012

[angrymike](#) on March 17, 2012 at [11:24 AM](#)

[angrymike](#) on March 17, 2012 at [11:21 AM](#)

...mikey ...you missed another meltdown from the Dr. in the early morning hours!

Read some of it, the good LK has got to be related to Obama - smartest man in the room

angrymike on March 17, 2012 at [11:28 AM](#)

I don't think he ever considers that he could be wrong. He just thinks if he believes it and wants it to be it will be. He doesn't care about the real facts he has his own reality. He lives by a flawed philosophy not rooted in reality. My sister has an advanced degree, graduated magna cum laude but she has absolutely zero idea how to run her life. She thinks she's intellectual and the degree makes her somehow superior. Love her to death and no doubt she's smart but in the real world not so much.

ldbgcoleman on March 17, 2012 at [11:35 AM](#)

Oh, and BTW, Ed...

Top 'O the mornin' to ya, on this fine and lovely St. Paddy's Day...

dIcarter on March 17, 2012 at [11:37 AM](#)

So who in Congress is investigating this "Eco-Watergate"?

albill on March 17, 2012 at [11:38 AM](#)

dIcarter on March 17, 2012 at 11:37 AM

And, to all HA'ers as well...

dIcarter on March 17, 2012 at [11:39 AM](#)

Timely: [Oil Sands are a Triumph for the Human 'Environment'](#)

slickwillie2001 on March 17, 2012 at [11:40 AM](#)

Response from GOP candidates: \*crickets\*

KS Rex on March 17, 2012 at [11:45 AM](#)

So who in Congress is investigating this "Eco-Watergate"?

albill on March 17, 2012 at 11:38 AM

Rep. Darrell Issa (R-CA) is running the House investigation. These emails coming to light are part of his investigation efforts.

Bitter Clinger on March 17, 2012 at [11:46 AM](#)

Bitter Clinger

But what will come of these investigations. F@F, Solyndra ect. Lets hope we have a October dump of indictments. That would stir the pot a bit.

angrymike on March 17, 2012 at [11:55 AM](#)

The only explanation I can think of is that the highest levels of this White House have been hermetically sealed off against outside information, and decisions are made only on the basis of information from the "right people", i.e. Friends of Obama or the Democratic Party.

I thought obama and chu were comms...

bernverdnardo1 on March 17, 2012 at [11:59 AM](#)

The media is a disgrace for ignoring this.

aquaviva on March 17, 2012 at [12:00 PM](#)

Heard someone on the EIB Network say that "Obama was the least smartest guy in the room. No matter what room he is in." Guess he knew what he was talking about. Wonder who he was?

RickinNH on March 17, 2012 at [12:03 PM](#)

The message to defeat Obowma?

He is out of touch with the American people. He doesn't care that Americans suffer under his policies no matter how hard he tries to blame GW Bush, all this misery and suffering is under his control.

A simple bumper sticker: Obowma doesn't care.

dthomy on March 17, 2012 at [12:25 PM](#)

These people are clueless about how society works. If one of their top priorities for civilization is that it becomes powered by solar energy then they should all be working in and investing in a solar energy company. There is no reason for these people to be in **government** and from there they fret about a solar energy company.

Resolute on March 17, 2012 at [12:34 PM](#)

Corruption at the highest levels of American govt. It's depressing but gives us more resolve to get this Chicago thug liar out of the White House.

Christian Conservative on March 17, 2012 at [12:35 PM](#)

... then why did Obama and Energy Secretary Steven Chu agree to restructure the loan less than a month later on such unfavorable terms?

Some people need to go to jail for this.

[petefri](#) on March 17, 2012 at [12:37 PM](#)

Curious??

Not me. It was done for raw political advantage.

Much, much better to rob and scr\*w the citizens of this country than to have Solyndra fail just one month after the State of the Union. It matters not that money was flushed down the drain; it was flushed in the service of optics: early default would have been a crippling message. And so Obama's calculation has proven wise, because the failure of Solyndra has gotten much less press than it would have otherwise.

The crony capitalism Kaiser involvement was there not to help Kaiser, but Obama. The sweetheart subordination terms were a pay-off to keep Solyndra afloat.

C. Choder on March 17, 2012 at [1:08 PM](#)

they'll stay mum on this since it's not interesting in seeing Obama re-elected. To the media, 'investigative journalism' is an oxymoron.

Bob in VA on March 17, 2012 at [1:12 PM](#)

Please, PLEASE, get the so called 'dumb' people back in charge.

The country can't take much more of the super geniuses that are running her into the ground.

jukin3 on March 17, 2012 at 10:56 AM

I couldn't agree more.

Mini-14 on March 17, 2012 at [1:23 PM](#)

The restructuring also either gave Solyndra sweetheart interest rates or perpetuated them despite the subordination, a move that the DoE and the White House have never explained.

The obvious never has to be explained.

THEY WERE PAYING OFF CAMPAIGN DONORS!

GarandFan on March 17, 2012 at [1:34 PM](#)

The media is a disgrace for ignoring this.

aquaviva on March 17, 2012 at 12:00 PM

... what's sad... is now we expect them to do that.

KOOLAIID2 on March 17, 2012 at [1:46 PM](#)

Aren't you glad to know that people like libtard4life and other progressive dullards will gladly toil laboriously, to recompense us taxpayers, for this administration's willful wasting of our hard-earned money?

rightside on March 17, 2012 at [1:46 PM](#)

GarandFan on March 17, 2012 at 1:34 PM

Worse. A donor can be small time, as you know.

These were bundlers and gave mucho dinero.

Just 1%ers getting what they wanted.

Hypocrites.

llikedAUH2O on March 17, 2012 at [1:52 PM](#)

then why did Obama and Energy Secretary Steven Chu agree to restructure the loan less than a month later on such unfavorable terms?

Because this admin., with Obama the Pimp in Chief, are the most thuggish liars, ever.

# A **cost curve** for greenhouse gas reduction

*A global study of the size and cost of measures to reduce greenhouse gas emissions yields important insights for businesses and policy makers.*

**Per-Anders Enkvist, Tomas Nauclér,  
and Jerker Rosander**

---

**The debate about greenhouse gases** is heating up. Across a wide spectrum, some voices argue that emissions and climate aren't linked, while others urge immediate concerted global action to reduce the flow of emissions into the atmosphere. Even the advocates of action disagree about timing, goals, and means. Despite the controversy, one thing is certain: any form of intensified regulation would have profound implications for business.

Our contribution on this topic is not to evaluate the science of climate change or to address the question of whether and how countries around the world should act to reduce emissions. In this article we aim instead to give policy makers, if they choose to act, an understanding of the significance and cost of each possible method of reducing emissions and of the relative importance of different regions and sectors. To that end, we have developed an integrated fact base and related cost curves showing the significance and cost of each available approach, globally and by region and sector. Our other purpose is to help business leaders understand the implications of potential regulatory actions for companies and industries. Indeed, regulation is already on the minds of many executives. A recent survey<sup>1</sup> indicates




## Department of Energy

Washington, DC 20585

March 3, 2009

**MEMORANDUM FOR:** Eric J. Fygi  
Acting General Counsel

**FROM:** Owen Barwell   
Deputy Chief Financial Officer

**SUBJECT:** Annual National Environmental Policy Act (NEPA) Summary

Attached is the 2009 Annual NEPA Planning Summary for the Office of the Chief Financial Officer. This summary includes information for the Advanced Technology Vehicles Manufacturing Loan Program.

If you have any questions regarding the Summary, please contact Matthew C. McMillen, NEPA Compliance Officer, Office of the Chief Financial Officer, at 202-586-7248.

Attachments

cc: Matt McMillen, LGPO  
Carol Borgstrom, GC-20





**LOAN GUARANTEE  
SOLICITATION ANNOUNCEMENT**



**U.S. Department of Energy  
Loan Guarantee Program Office**

**FEDERAL LOAN GUARANTEES FOR  
ELECTRIC POWER TRANSMISSION INFRASTRUCTURE  
INVESTMENT PROJECTS**

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\*See Section IV.6 for multiple due dates regarding Part II submissions

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October 31, 2012

MEMORANDUM

**TO:** Members, Committee on Oversight and Government Reform

**FROM:** Majority Staff, Committee on Oversight and Government Reform

**SUBJECT:** Update on Committee's Oversight of the DOE Loan Guarantee Program: New Emails Show President Obama, Senior Administration Officials Misled American People about Role of President and White House in Program

For over a year, the Committee has been conducting comprehensive oversight of the Obama Administration's Sec. 1705 green energy loan guarantee program, administered by the Department of Energy (DOE). The Committee held five hearings, sent dozens of letters, interviewed numerous current and former DOE officials, and reviewed hundreds of thousands of documents produced by DOE, loan recipients, individuals, and other organizations with a stake in the 1705 loan guarantee program.

DOE obligated \$14.5 billion to 26 projects before the loan program's termination in September 2011. Three of those projects (Solyndra, Beacon, and Abound) have already declared bankruptcy, and several others are facing serious financial difficulties. Twenty-two of these projects were rated below investment grade (junk) because of their bad credit quality.<sup>1</sup>

Since the first loan guarantee recipient declared bankruptcy (Solyndra, in September 2011), the Administration, particularly the President and Secretary Chu, has insisted that political cronyism played no role in the allocation of taxpayer funds in the program, despite substantial connections between numerous companies that received loan guarantees and friends, fundraisers and donors to President Obama and others in his Administration. The Administration has also attempted to deflect blame for the program's controversies, insisting that career bureaucrats at DOE made the decisions that led to the program's massive failures and losses. Most recently, President Obama personally assured the American people that decisions made in the loan program were "decisions, by the way, that are made by the Department of Energy, they have nothing to do with politics."<sup>2</sup>

<sup>1</sup> See "The Department of Energy's Disastrous Management of Loan Guarantee Programs," Staff Report, Committee on Oversight and Government Reform, March 20, 2012. Available at <http://oversight.house.gov/report/the-department-of-energy-s-disastrous-management-of-loan-guarantee-programs/>.

<sup>2</sup> President Barack Obama, interview with 9NEWS, October 27, 2012. Available at <http://www.9news.com>.

employees and contractors many of which have been winners by the Department of Energy for more than a year. This memo outlines key information the Committee has recently uncovered that suggests statements by the President and others in his Administration were misleading and that the White House, senior Administration officials, and President Obama himself played key roles in the Loan Guarantee Program.

### The Administration's Claim: "DOE Officials" Made All Decisions on Specific Loans

- On Friday October 26, 2012, President Obama told a local Denver, Colorado news anchor that decisions made in the loan program office are "decisions, by the way, that are made by the Department of Energy, they have nothing to do with politics."
- Secretary Chu, testifying before the House Oversight Committee in March 2012, said "we looked at the loans on their own merits." Testifying before the House Energy and Commerce Committee in November 2011, Secretary Chu said "I am aware of no communication from White House to Department of Energy saying to make the loan or to restructure."
- On October 30, 2011, White House Senior Advisor David Plouffe told Meet the Press' David Gregory "decisions about the loan program were made by career officials in the Department of Energy on the merits."
- Loan Program Office Chief David Frantz told the Committee "I have been with the program from its inception to today... not a single project has been brought forward, gone through the due diligence process, closed, and been awarded a loan guarantee with other than the pure merits of the project itself. There has been no, to the best of my knowledge, political coercion on any one of the single projects."

### Those "DOE Officials" Describe Repeated Decision Making by the White House

- From an email dated October 30, 2010 from DOE Loan Program Office (LPO) Credit Advisor Jim McCrea to LPO Executive Director Jonathan Silver:  

"I am growing increasingly worried about a fast track process **imposed on us at the POTUS level** based on this chaotic process that we are undergoing...by designing the fast track process and **having it approved at the POTUS level (which is an absolute waste of his time!)** it legitimizes every element and it becomes embedded like the 55% recovery rate which **also was imposed by POTUS.**" (Email #1, attached)
- From an email dated March 1, 2010 from David Schmitzer, DOE LPO Director of Loan Origination to LPO Credit Advisor McCrea and others:  

"Jonathan just said at our staff meeting that, **opposite the message received on Thursday, AREVA is now a "go" (seems on Friday POTUS himself approved moving it ahead)**" (Email #2, attached)

"You better let him know that WH wants to move Abound forward. Policy will have to wait unless they have a specific policy problem with Abound."  
(Email #3, attached)

- From an email dated September 9, 2010 from LPO Credit Advisor McCrea to DOE contractor Brian Oakley:

"Pressure is on real heavy on SF [Shepherds Flat] **due to interest from VP.**" (Email #4, attached)
- Lobbying White House and VP's Office Achieves Results: Officials at the Department of Interior remove obstacles to BrightSource Energy's Ivanpah project after the Office of Political Affairs and Vice President's office get involved
  - A May 23, 2011 email, drafted by BrightSource Energy CEO John Woolard for BrightSource Board Chairman John Bryson (who later became Secretary of Commerce) to send to White House Chief of Staff Bill Daley, states: "**This project is now at significant risk due to delays in permitting at the Department of Interior...** This project has been very high profile for the administration, President Obama highlighted it in his weekly address, Sec Salazar attended and spoke at the groundbreaking, and DOE has already spent \$400 million." (Email #5, attached)
  - An email dated May 25, 2011 from BrightSource CEO John Woolard stated "we are making good progress in DC. Whitehouse [sic] does seem to be very focused on this issue, **in fact it is being elevated through the office of political affairs as well as VP Bidens- so we are starting to get them focused on the massive political risk-** it helps that Bloomberg called Ivanpah "Obama's energy project" so it does have their attention." (Email #6, attached)
  - Two weeks later, in an email dated June 12, 2011, BrightSource staff informed the company's Board of Directors that the company got what it wanted from the Department of the Interior: "The U.S. Fish and Wildlife Service issued their revised Biological Opinion, prompting the Bureau of Land Management to issue a new notice to proceed allowing continued construction at Ivanpah units 2 and 3." (Email #7, attached)

- **DOE officials were aware of Senate Majority Leader Harry Reid's tough reelection in 2010 and moved projects that were important to Senator Reid forward.**
  - In a December 5 2009 email, Loan Program Office Senior Credit Advisor Jim McCrea forwarded an article about Senator Reid's reelection campaign to LPO contractor Paul Barbian and stated: "Since this is not going to go into the DOE, and just to be clear, the translation is: **Reid may be desperate. WH may want to help. Short term considerations may be more important than longer term considerations and what's a billion anyhow?"** (Email #8, attached)
  - In a May 4 2010 email, LPO Executive Director Jonathan Silver wrote in an email "I need some stats on how many projects we have funded or have in DD [due diligence] as a percentage of totals. **Reid is constantly hit at home for not bringing in the federal dollars.**" (Email #9, attached)
  - Throughout 2010 LPO emails indicate that projects in Nevada were prioritized because they were "high profile," "tied to larger events," or because they had Senator Reid's support. **These projects included the \$343 million SWIP project (Email #10, attached), the \$98.5 million Nevada Geothermal project (Email #11, attached), and the \$737 million SolarReserve Tonopah project (Email #12, attached).**
- **Secretary Chu personally issued orders to prioritize the Unistar project, a project favored by House Majority Leader Steny Hoyer.** Constellation Energy and Electricite de France (EDF), entered into a joint venture, UniStar, seeking a loan guarantee to create a new nuclear reactor at the Calvert Cliffs, Maryland plant.
  - Jonathan Silver wrote to Secretary Chu's Chief of Staff Brandon Hurlbut in a December 10, 2010: "since aldy [White House staffer Joe Aldy] personally promised the edf management group [one of the sponsor's of the Unistar loan guarantee project] that he would lead an inter-agency review of this topic, we should tell him that he should be the one to call and deliver the news." (Email #13, attached)
  - A series of emails from May 25, 2010 through June 4, 2010 between McCrea and other DOE officials state "**there has been a commitment from S1 [Secretary Chu] to Steny Hoyer on this.** Nothing like over committing and under delivering." (Email #14, attached)
  - A second email specifies that "DOE has made political commitment to get Unistar through approval process by 6/15." The pressure stays on, as a third emails states, "**Just came down from the Secretary's office. He is adamant that this transaction is going to OMB by the end of day.**" (Email #15, attached)

issue like this, I would refuse to sign the check paper and refuse to send it to OMB tomorrow but given the direct order I was personally given by S1[Secretary Chu]...” (Email # 16, attached)

### **Administration Claims Decisions Were Made “On the Merits”, But Home Visits and Dinner Parties for Loan Guarantee Applicants Suggest Cozy Relationships**

- Several months before Brightsource received a \$1.6 billion loan guarantee, the company’s CEO, John Woolard, came to Washington. On November 10, 2011, Woolard emailed Jonathan Silver, Executive Director of the Loan Program, “Thanks for offering to meet at your house tomorrow morning. It looks like I land at Dulles at 7:20am – can you please send your address or let me know if it works out better for me to just land and grab a hotel for run/shower and meet later?” Silver responded and gave Woolard his home address, adding “C[o]me anytime. Guest bedroom is ready. I’ll be back from my breakfast at 9:30.” (Email #17, attached)
- According to a September 2011 email, in January of 2011, while Brightsource’s application was still pending, Mr. Silver and his wife, Melissa Moss, hosted a dinner party at their Georgetown home for John Bryson, then-Chairman of the Board at Brightsource. After Mr. Bryson was later appointed by President Obama as U.S. Secretary of Commerce, Mr. Bryson fondly remembered the dinner as “a gathering of very experienced, smart, and savvy DC people.” (Email #18, attached)

### **Conclusion**

Contrary to the Administration’s assertions, the loan program’s failure cannot be isolated to the Department of Energy Loan Program Office, or to the Department of Treasury or the Office of Management and Budget. **Over 150 emails are enclosed with this memorandum.** The attached emails demonstrate that non-political, career Department of Energy employees felt political pressure from sources as high as the President, Vice President, Secretary Chu and senior White House officials. The attached emails also demonstrate that infighting between agencies and mismanagement by the White House resulted in a breakdown of due diligence that ended up wasting billions of taxpayer dollars.

Please see [Appendix I \(http://1.usa.gov/Va4IL0\)](http://1.usa.gov/Va4IL0) for emails referenced above in this memorandum, and [Appendix II \(http://1.usa.gov/SI3hou\)](http://1.usa.gov/SI3hou) for other related emails. If you have any questions, please contact Committee staff at 5-5074.

GAO

Testimony

Before the Subcommittee on Oversight  
and Investigations, Committee on Energy  
and Commerce, House of Representatives

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For Release on Delivery  
Expected at 10:30 a.m. EDT  
Wednesday, April 18, 2012

DEPARTMENT OF  
ENERGY

Budget Trends and  
Oversight

Statement of Frank Rusco, Director  
Natural Resources and Environment





## DEPARTMENT OF ENERGY

## Budget Trends and Oversight

Highlights of [GAO-12-656T](#), a testimony before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, House of Representatives

## Why GAO Did This Study

Understanding the impact of budget-related considerations has become particularly important as Congress and the administration seek to decrease the cost of government while improving its performance. In recent years, Congress has authorized large increases in funding for DOE. For example, the Recovery Act, which Congress enacted to, among other things, preserve and create jobs and promote economic recovery, provided DOE with more than \$41.7 billion in areas such as energy efficiency, renewable energy, and environmental cleanup.

This testimony focuses on several key programs and related budget issues at DOE, including (1) the management of selected programs expanded or created by recent funding increases and (2) potential opportunities to achieve savings or enhance revenue. This testimony is based on prior GAO reports from February 2011 to March 2012, and updated with readily available data from DOE.

## What GAO Recommends

GAO is making no new recommendations in this testimony but continues to believe that implementing the recent recommendations made in the reports discussed should improve DOE program management, achieve savings, and enhance revenue. DOE has generally agreed with most of our recommendations, but disagreed on certain points related to the timing of implementing our recommendations.

## What GAO Found

Recent GAO work found that funding increases have expanded or created Department of Energy (DOE) programs with varying results. For example:

- *Advanced Research Projects Agency-Energy (ARPA-E)* awards grants to projects that help develop high-risk energy technologies. Since fiscal year 2009 the program has received \$855 million to fund energy projects that industry by itself was not likely to undertake. GAO found that ARPA-E uses several selection criteria in awarding funds, but its requirements for information on private funding could be improved.
- The *Loan Guarantee Program* provides loan guarantees for innovative energy technologies. DOE has made about \$15 billion in loan guarantees and is authorized to make up to \$34 billion in additional loan guarantees. GAO found that the program does not have sufficient data to facilitate oversight, and its actual process for reviewing applications has differed from the established process.
- The *Weatherization Assistance Program* helps low-income families reduce their energy bills by making long-term energy efficiency improvements to their homes. The American Recovery and Reinvestment Act of 2009 (Recovery Act) provided \$5 billion to enhance the program's ability to make energy efficiency improvements to low-income family homes. GAO made recommendations to DOE to clarify the program's production targets (e.g., the number of homes weatherized) and guidance.
- The *Advanced Technology Vehicles Manufacturing Loan Program* provides loans for projects to produce more fuel-efficient passenger vehicles and their components. DOE can make up to \$25 billion in loans for fuel-efficient vehicles; at the time of GAO's review, DOE could not be assured that projects would be delivered as agreed.

GAO also reported that improvements at DOE may provide opportunities for increasing savings and enhancing revenue. For example:

- *Contractor support costs.* DOE's management of contractors, who operate DOE sites and represent 90 percent of DOE's budget, has historically been decentralized, or fragmented. This adds to inefficiencies in support functions. Since 2007, DOE and contractors at some DOE sites have had efforts to streamline these functions. GAO recommended that DOE assess whether further opportunities could be taken to streamline such functions.
- *Diesel emissions.* DOE, the Department of Transportation, and the Environmental Protection Agency receive federal funding to reduce diesel emissions from mobile sources—14 programs in all, which also overlap on certain activities. DOE received \$572 million for its 3 programs. GAO recommended that the three agencies establish a strategy for collaboration to reduce diesel emissions from mobile sources.
- *Excess uranium inventories.* Uranium is used in fuel for nuclear power plants. GAO reported DOE's excess uranium inventories could be worth billions of dollars in additional revenue as fuel for commercial nuclear power plants.



# International Expansion

By Avalon Consultants:

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# A123 lithium-ion battery maker bankruptcy fuels Republican criticism of President Barack Obama's alternative-energy policy

October 17, 2012 | Comments

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A123 Systems workers Dave Berens, left, Kurt Wozniak, Shannon DeWaeltsche, and Aj Belcuons, go over a battery pack on a conveyor belt in Livonia. The lithium-ion battery maker filed Tuesday for Chapter 11 bankruptcy protection, which triggered a fresh round of political criticism of the Obama administration's funding of alternative-energy firms. / 2011 photo by ANDRE J. KSON/Detroit Free Press

with  
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ers

Battery maker A123 Systems' Chapter 11 bankruptcy filing Tuesday triggered a fresh round of political criticism of the Obama administration's alternative-energy investments.

The Waltham, Mass.-based company, which has 626 employees and 348 contract workers in three southeast Michigan locations, said auto supplier Johnson Controls had tentatively agreed to pay \$125 million to purchase its automotive-related assets, including the operations in Livonia, Romulus and Ann Arbor.

Republicans immediately compared A123's bankruptcy with the California solar panel manufacturer Solyndra, which filed for bankruptcy and liquidated last year, wiping out a \$500-million loan

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Battered by recalls, high costs and sluggish consumer adoption of electric vehicles, A123 lost \$1 billion since its founding in 2001, despite substantial government support.



SOURCE: Yahoo  
DAVID PIERCE/DETROIT FREE PRESS

The U.S. Department of Energy awarded a \$249-million grant to A123 in August 2009 with promises of 5,900 jobs, mostly in Michigan. The Michigan Economic Development Corp. also awarded A123 more than \$125 million in a variety of tax credits, grants and incentives in 2008 and 2009. The U.S. grant and Michigan incentives drew bipartisan support when they originally were approved.

"This is what's possible in a clean-energy economy -- these folks right here, doing extraordinary work," President Barack Obama said at the White House Rose Garden after meeting A123 employees on April 30, 2010.

"This is what happens when we place our bets on American workers and American

businesses."

A123 has received \$132 million of its federal grant so far. The Energy Department said Johnson Controls could be eligible for the rest of the funding, but that has yet to be determined. The federal government's investment does not have to be repaid, according to Securities and Exchange Commission filings.

But Americans have not embraced electric vehicles that require regular recharging. In many instances, they are priced significantly higher than their gasoline-fueled counterparts. Even federal and state tax credits have not erased that price premium.

Then the lack of easy-to-find recharging stations has left many motorists worried about being left on a remote dark road without

Meanwhile, the Department of Energy pointed out that A123's investment had bipartisan support from Michigan lawmakers, including incumbent Democratic Sen. Debbie Stabenow and her Republican challenger, Pete Hoekstra.

"Johnson Controls' investment in A123 will help ensure that the U.S. remains competitive in this growing global sector," said former Democratic Michigan Gov. Jennifer Granholm, who promoted battery tax incentives as a way to boost the Michigan economy.

A123's bankruptcy filing comes two months after Chinese auto parts maker Wanxiang Group agreed to invest up to \$450 million to acquire up to 80% of A123. But that deal fell apart as A123 was set to burn through \$400 million in cash over the next 12 months, O'Neill said.

Instead, Johnson Controls is cherry-picking the best assets out of A123, O'Neill said.

Johnson Controls also was awarded a \$299-million Energy Department grant for its lithium-ion battery plant in Holland. The company's spokeswoman declined to comment on whether that plant would be affected by the A123 deal.

Barclays analysts said in a research note that the deal would make Johnson Controls "the dominant surviving" U.S.-based lithium battery maker.

A123 shares, which closed Monday at 24 cents, fell 75% to 6 cents on Tuesday.

Many sophisticated A123 investors have lost millions, including global conglomerate General Electric, which had invested about \$70 million by 2009.

Dan Leistikow, an Energy Department spokesman, said in a blog

## **More Details: Time line of battery maker A123 Systems**

**Products:** Nickel-based batteries, lead acid batteries, lithium-ion batteries, ultra capacitors and fuel cells

**2001** — Founded in a Massachusetts Institute of Technology lab by materials scientist Yet-Ming Chiang.

**2006** — Began selling batteries.

**March 2008** — General Electric invested \$207million in A123 to make batteries for Think Global's electric vehicle.

**May 2008** — The U.S. Advanced Battery Consortium and the U.S. Department of Energy awarded it a \$12.5-million grant to develop its lithium-ion battery technology for plug-in hybrid electric vehicles.

**August 2009** — The DOE awarded it a \$249-million grant under the government's Advanced Technology Vehicles Manufacturing Loan Program.

**September 2009** — A123 raised \$380 million through an initial public offering on the NASDAQ exchange.

**December 2009** — Formed a joint venture with Shanghai Automotive Industry Corp.

**September 2010** — Opened a lithium-ion battery plant in Livonia, equipped to make battery packs for up to 30,000 electric vehicles a year.

**July 2011** — Announced the hiring of its 1,000th worker in Michigan.

**March 2012** — A123 recalled battery packs with prismatic cells that it sold to Fisker Automotive to power its Karma electric car. CEO David Vieau estimated that the recall would cost \$557million.

**August 2012** — Announced a loss of \$82.9 million in the second quarter.

**August 2012** — Wanxiang Group, China's largest auto parts manufacturer, agreed to invest up to \$465 million in A123 in exchange for 80% of A123.

**Tuesday** — Filed for Chapter 11 bankruptcy and sold auto-related

# A123 Systems To Recall Electric-Car Battery Packs For Fisker, Others

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Email phosphate Auto Battery cell

Hundreds of recalls a year get announced for gasoline cars, the vast majority completely under the radar.

The high visibility of the electric car business makes any recalls of batteries different, though.

With that in mind, lithium-ion cell maker A123 Systems [NASDAQ:A123] said this morning it will recall battery modules and packs that contain prismatic cells produced at its Livonia, Michigan, plant that may have a defect that reduces their performance.

## Fisker Karma largest user

Those components are used in the [2012 Fisker Karma](#), among other vehicles, which A123 CEO David Vieau noted is currently the largest single program that uses the prismatic cells from Livonia.

The defect, said Vieau, was discovered only in some cells built at Livonia. The hundreds of thousands of prismatic cells it has built at other plants aren't affected, nor are cylindrical cells it builds in China for transportation and energy-storage applications.

"A small number of packs in the field experienced a defect," said Vieau. The defect was traced to a miscalibration in an automatic welding machine at the plant, which resulted in a misaligned component was not detected visually.

When the cells were compressed, interference could be created although the cells functioned properly at first. A123 says the defect does not cause a safety issue, and has had no reports of any safety concerns in any of the products.

## ALSO SEE



2012 Fisker Karma Vs. 2012 Tesla Model S: Video...



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Volvo C30 Electric Car: How Quickly Does It...

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confirmed that the failure of the battery pack in a 2012 Fisker Karma purchased by Consumer Reports was due to a failed A123 module that would be replaced under the recall program.



2012 Fisker Karma during road test, Los Angeles, Feb 2012

Five transportation customers use potentially defective cells produced at the Livonia facility, though Vieau declined several times to identify the companies identified.

A123's customers include Fisker, Chevrolet, BMW, and other vehicle makers. Vieau noted that the BMW ActiveHybrid 3 and ActiveHybrid 5 models use cylindrical cells built at A123's Chinese plant, and so are not affected by the recall.

A123 said it had hired a chief operating officer, Ed Kopkowski, with more than 25 years of experience in quality improvement and cost reduction.

### A123 faces challenges

The recall is particularly unfortunate because the Livonia cell fabrication plant is planned to be one of the largest such facilities in the U.S. It received some funding from the 2008 Recovery Act passed by the Bush Administration.

A123 Systems has had several challenges over the last year. With Fisker Automotive cutting its projected purchase of A123's lithium-ion cells for the delayed 2012 Fisker Karma, the company laid off some employees and cut its financial projections.

The volume of cells it provides to General Motors for the upcoming Chevrolet Spark EV is likely to be low, as only a few thousand of that car will likely be built to meet emission regulations in a small number of states.

Perhaps worrisome for investors and industry analysts, Vieau said A123 would adjust its fundraising strategy to accommodate the \$55 million cost of the recall.

"It's certainly not good news," he said, though he pointed to the narrow scope of the issue and the global footprint of the company's several manufacturing plants and product lines.

"We make no excuses and we accept full responsibility for this action," said Vieau, but saying the company was "disappointed and frustrated" by the situation. He added that he believed the company had fully identified the problem and developed a field campaign that addresses it fully.

While the rapid ramp-up of the Livonia facility has "resulted in near-term operational challenges," Vieau said, "we are confident in our ability to overcome these issues."





## **UPDATE TO PROCESS: ATVM LOAN PROGRAM**

For Immediate Release

March 6, 2009

Section 136 of the Energy Independence and Security Act of 2007, enacted on December 19, 2007, Pub. L. 110-140, authorizes the Secretary of Energy to make grants and direct loans to eligible applicants for projects that reequip, expand, or establish manufacturing facilities in the United States to produce qualified advanced technology vehicles, or qualifying components and also for engineering integration costs associated with such projects. The program established by section 136 is referred to as the Advanced Technology Vehicles Manufacturing Incentive Program (ATVMIP).

DOE issued an interim final rule to establish regulations necessary to implement the loan and grant programs authorized by section 136. Additionally, concurrent with the issuance of that interim final rule, the Department announced that it would consider and evaluate substantially complete applications for loans under the ATVMIP as and when they are submitted during a first tranche period, which closed on December 31, 2008. DOE stated that it may make decisions on such applications and close loans with respect to such applications at any time. After December 31, 2008, subsequent tranche periods were established to close on the last day of each calendar year quarter (i.e., March 31, 2009; June 30, 2009, etc.) For applications submitted during those subsequent periods, no final decisions would be made with respect to such applications until after the close of the particular tranche period.

In order to expedite the processing of all applications for loans, DOE has determined to change the previously announced process and henceforth will consider and evaluate substantially complete applications for loans under the ATVMIP as and when they are submitted. Further, DOE may make decisions on such applications and close loans with respect to such applications at any time. Accordingly, applications submitted after December 31, 2008, will be treated in the same manner as applications submitted prior to December 31, 2008.

On Friday, Republican Congressman Cory Gardner of Colorado announced he was signing on to a letter requesting that Energy Secretary Steven Chu provide documents and information regarding what the Energy Department knew about Abound Solar's actions while giving it taxpayer dollars.

"We will be sending this letter to the Department of Energy, to Secretary Chu, demanding information on technical reports, engineering reports, marketing analysis, schematics, information they had on the failure rate, the technology flaws. This is an investigation that will be launching today," Gardner said in an [interview](#) with 1310 KFKA's Amy Oliver, "but we need to have answers, the American people deserve nothing less."

Last week, The Daily Caller News Foundation published the results of an [investigation](#) of federal loan guarantee recipient Abound Solar and found that the company was knowingly selling a faulty, underperforming product, and may have misled lenders at one point in order to keep itself afloat in order to get government funding.

"We need to know, did the Department of Energy — did they close on the loan when they knew there were technical problems with the product?" Gardner said. "The fact that we have taxpayers on the hook for \$70 million means that we, in Congress, have a responsibility to make sure nothing was done improperly."

Rep. Gardner is on the House Energy and Commerce Committee which oversees the Energy Department's loan program, from which Abound — like Solyndra — received taxpayer dollars.

Gardner said that an investigation of potential criminal activity would be left to state and local authorities.

The next day, Denver's 7NEWS [reported](#) that the Weld County's district attorney's office in northern Colorado was investigating Abound Solar, scrutinizing the company's finances.

Abound Solar announced it was filing for chapter 7 bankruptcy liquidation in June, arguing that cheap Chinese solar panels flooding the market caused their demise.

"With over \$30 billion in reported government subsidies, Chinese panel makers were able to sell below cost and put Abound out of business before we were big enough to pose a real competitive threat to China's rapidly growing market share," according to the prepared congressional [testimony](#) by Craig Witsoe, former CEO of Abound.

Chinese competition did hurt the company's success, but that only added to Abound's existing problems with their panels, according to sources.

Testimony from sources within Abound show the company knew panels were faulty prior to obtaining taxpayer dollars, according to sources, but kept pushing product out the door in order to meet Department of Energy goals required for their \$400 million loan guarantee.

"Our solar modules worked as long as you didn't put them in the sun," an internal source from Abound told TheDC News Foundation.

Abound's faulty panels had high expected failure rates — as high as 77 percent in five years for some panels. Documents also show the total known and estimated failures for 2012 was put at 156,983 — out of 620,106 solar modules sold.

One source specifically said it was DOE metrics that caused Abound to keep producing and

Around may have also committed fraud in order to obtain a bridge loan to keep themselves afloat in the weeks leading up to closing the Energy Department loan guarantee by using fake accounts receivable as collateral for the loan.

"We collateralized the loan with fake [accounts receivable] (the customer had canceled the order so the revenue should have been reversed but we kept it on the books for the banks benefits)," wrote one source in an email to the DC News Foundation.

"In my professional opinion I think that was fraud because there was no accounts receivable, it was a cancelled sale," that same source later told TheDC News Foundation in an interview.

"These are solar panels we are now seeing reports that said they worked as long as you didn't put them in the sun," said Rep. Cory Gardner, R-Colo. "Now the question is did the (Department of Energy) — did they know something that the rest of should have known? Did Around not tell the DOE something? These are questions that need to be answered."

Gardner told 1310 KFKA's Amy Oliver he expects the DOE to respond to his letter soon — within the next ten days.

[Follow Michael on Twitter](#)

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# Doing God's Work

How Goldman Sachs Riggs the Game

March 2011

 **SPINWATCH**  
MONITORING DRUG AND SPIN

**...around the face of humanity, relentlessly jamming its blood funnel into anything that smells like money.”**

Matt Taibbi, Rolling Stone Magazine, July 2009

### **Introduction**

Much has been written about Goldman Sachs' immense size and power in the US, of the incessant revolving door between the bank, regulatory and political elites in Washington. But Goldman Sachs has cultivated political contacts around the world, not just in the US capital.

This report looks at how the bank's tentacles have spread throughout British and European political circles, including the regulatory centre of Brussels. Goldman Sachs often operates behind the scenes, also working through a number of business lobby groups. This report explores and exposes those links.

Critics say having friends in high places gives the firm a vital edge.<sup>1</sup> This has also allowed Goldman and other global banks to escape the necessary regulatory reform that many independent commentators believe is vital, especially in areas of derivatives.

There is no doubting that Goldman's image has taken a battering. In the midst of the world's worst oil spill in the Gulf of Mexico, Reuters ran an article entitled: "BP: Still not as evil as Goldman Sachs".<sup>2</sup>

The bank's plummeting reputation is a result of a series of events: the role it played in causing the financial crisis, and its "arrogant and unapologetic attitude" in its wake, when CEO Lloyd Blankfein described the bank's activities as "God's work".<sup>3</sup> It was also accused by US authorities of defrauding investors out of \$1 billion,<sup>4</sup> faced fines of £17.5 million for failing to tell UK regulators that it was under investigation for fraud,<sup>5</sup> and was sued by three ex-employees for sexual discrimination.<sup>6</sup>

Under fire, Goldman Sachs responded with the biggest advertising campaign in its history, "to help the wider public understand what we do for our clients."<sup>7</sup>

Yet, as banking commentator, Bethany Mclean, notes: "No outsider can tell how the firm really makes its money. It is a fear that Goldman has the game rigged, even if no one can ever prove how. Not just because of its political connections, but also because of its immense size and power."<sup>8</sup> Recent efforts at transparency – its disclosure of revenue from trading and investing<sup>9</sup> - do little to allay fears. "They stopped short of doing something really big", said one banking insider.<sup>10</sup>

What was big, though, was the firm's remuneration and bonus pot

# Auto bailout cost now upped to \$25 billion

by *Paul A. Eisenstein, The Detroit Bureau*

American taxpayers could wind up losing as much as \$25 billion on the 2008 – 2009 automotive bailout, according to a new report, a figure that has increased by 15% since an earlier forecast, in large part representing the significant downturn in [General Motors' stock price](#).

Beginning with the outgoing Bush Administration in 2008 and continuing once Pres. Barack Obama took office the following year, the U.S. Treasury invested \$85 billion to help the domestic industry survive the deep recession – primarily to fund the post-bankruptcy turnarounds at GM and Chrysler.

## [Former Chevy Volt Chief Named New Fisker CEO](#)

In a report sent to Congress, the White House raised to \$25.1 billion the amount it said it cannot now expect to recover – primarily by selling off the remaining 26% stake it still holds in GM. The previous quarterly estimate was \$21.7 billion. On the other hand, the latest figure is about 45% less than the \$44 billion the Obama Administration had once predicted.

The forecast has actually been rising for some months, government analysts last year issuing a projection closer to \$15 billion. And, following the November 2010 GM IPO, there was some hope the Treasury might even break even. That was based on some [industry research](#), such as one report from influential Deutsche Bank that initially forecast GM shares could eventually top \$50 compared to the IPO strike price of \$33.

## [Most Luxury Makers Fail New Crash Test](#)

But, in recent months, automotive shares in general, GM in particular, have been tumbling. The \$25 billion government loss forecast was based on a stock price of \$22.20 at the end of May. During the next month, however, the number has dipped to less than \$19 a share, though the stock has since rebounded to \$20.61 at midday today.



during the 2010 IPO but the Treasury is still the maker's biggest

stockholder at 26% – or 500 million shares. GM's stock price would need to jump to \$53 for the government to break even.

The bailout, though initially started by the prior administration, has become an issue in the current election. GOP presidential candidate Mitt Romney vociferously opposed the rescue effort in 2008 and '09 – but has since claimed that he helped set the framework that helped GM and Chrysler successfully emerge from bankruptcy.

### Wild, Weird and Wacky Street Signs Contest

President Obama has repeatedly defended the bailout, insisting that the long-term cost of allowing GM and Chrysler to go bankrupt would have been significantly more than what the Treasury might ultimately lose on the effort.

A Treasury spokesman, Matt Anderson, continued to defend the bailout this week, insisting, "The auto industry rescue helped save more than 1 million jobs throughout our nation's industrial heartland and is expected to cost far less than many had feared during the height of the crisis."

Even at \$25.1 billion, the current forecast is less than the original \$44 billion the Obama Administration had projected. That's about the same amount as was authorized by the Bush Administration when it approved the first tranche of bailout money.

Chrysler has paid off all the money it received from the Obama Administration but didn't cover another \$1.3 billion granted by Pres. Bush.

Along with GM, the final accounting on the bailout will have to wait until the Treasury sells off the

Afghanistan has nearly \$1 trillion in mineral deposits, according to a study, but there are doubts the war-torn and graft-prone country can manage the windfall offered by the untapped riches.

President Hamid Karzai said in January that the deposits could help the war-ravaged nation become one of the richest in the world, based on preliminary findings of the United States Geological Survey.

The final results, reported in the *New York Times* Monday, found previously unknown reserves of lithium, iron, gold, niobium, cobalt and other minerals that the paper said could transform Afghanistan into a global mining hub.

"The natural resources of Afghanistan will play a magnificent role in Afghanistan's economic growth," Jawad Omar, spokesman for the country's ministry of mines and industries, told AFP.

"The past five decades show that every time new research takes place, it shows our natural reserves are far more than what was previously found," he said.

Afghanistan's potential lithium deposits are as large of those of Bolivia, which currently has the world's largest known reserves of the lightweight metal, the Times said.

There is ever-growing demand for lithium, which is used to make batteries for everything from mobile phones and cameras to iPads and laptops. Future growth in electric and hybrid cars could create still more demand.

Afghanistan has so much of the metal that it could become the "Saudi Arabia of lithium," according to an internal Pentagon memo quoted by the *New York Times*.

The iron and copper deposits are also large enough to make Afghanistan one of the world's top producers, U.S. officials said.

"There is stunning potential here," General David Petraeus, head of the U.S. Central Command which oversees Afghanistan, told the newspaper. "There are a lot of ifs, of course, but I think potentially it is hugely significant."

Little has been exploited because the country has been mired in conflict for three decades, and is today embroiled in a vicious insurgency by Islamist rebels led by the Taliban.

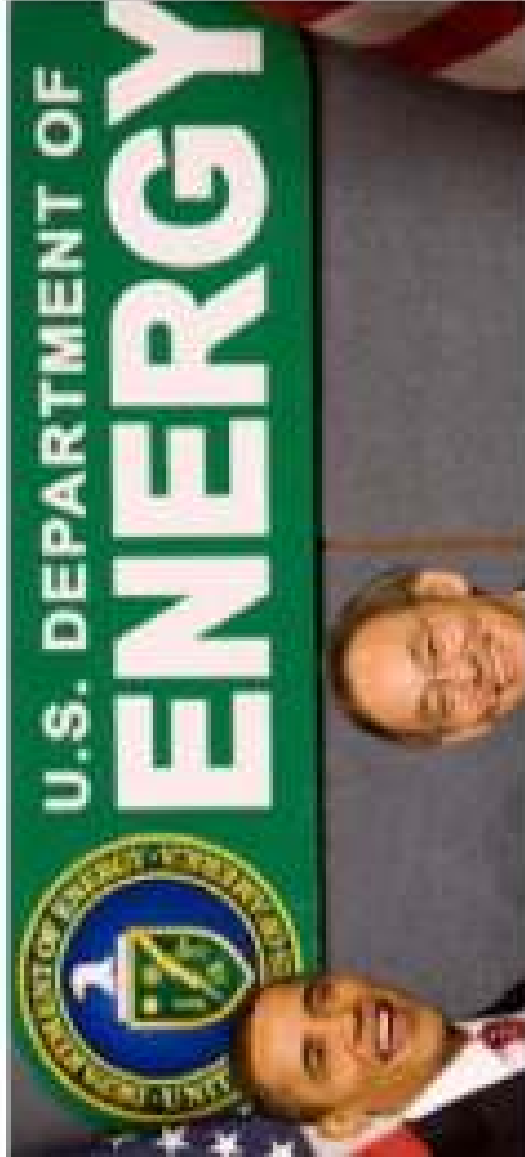
The country would have to find a way of bringing the minerals to markets but its infrastructure is rudimentary, with only one national highway connecting north to south and its ramshackle roads often targeted by Taliban bombs.

Analysts worried the country, hobbled by rampant corruption and a weak central state, was not ready to manage its potential mineral wealth.

"I highly doubt it will be able to either properly manage these resources or use the riches to build a more peaceful and prosperous Afghanistan for all Afghans," Janan Mosazai, a political analyst, told AFP.



Report: Obama Energy Secretary Steven Chu  
personally Intervened In \$1.4 Billion Loan To Prop Up  
olyndra...



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## Obama's focus on visiting clean-tech companies raises questions

By Carol D. Leonnig, [Joe Stephens](#) and Alice Crites, Saturday, June 25, 5:32 PM

With trips that began two months after he took office, President Obama has devoted more than half of his out-of-town private-business visits to promoting a single industry: clean technology, which the president says will lead the nation back to economic prosperity.

His praise for renewable-energy projects has been effusive. A day after this year's State of the Union address, he stood among workers at a small [Wisconsin lighting company](#) and dubbed it a "model for the future," helped by government incentives offering a "leg up to renewable-energy companies."

He praised workers for "helping to point the way" to a cleaner future [while visiting](#) a Charlotte company that makes an electric-car battery component. In Reno, Nev., in April, he lauded a start-up for "growing by leaps and bounds" as it markets a machine that converts waste heat into electricity.

He used similar words a few weeks ago at [a Durham, N.C., company](#) that makes energy-efficient lighting, saying it is "helping to lead a clean-energy revolution."

In all, Obama has visited 22 clean-tech projects on 19 separate trips, all emphasizing economic recovery and a \$90 billion stimulus program to promote energy independence. The president has underscored his support by singling out specific companies in speeches and White House radio addresses.

Obama's unwavering focus has helped him fulfill a campaign pledge to push clean tech, from solar energy and wind power to electric vehicles. But it also has come with political exposure: By emphasizing a sector in which the risks are high, the president has prompted questions on Capitol Hill and from industry about the wisdom of his singular strategy and his political ties to some of the companies chosen for federal attention.

The oil and gas industry, for example, has invested billions in energy innovation and job creation and could benefit from similar presidential attention, said Martin J. Durbin, executive vice president of the American Petroleum Institute.

"He's missing an incredible opportunity he has to join with us to make a difference in economic growth, job creation, national security and clean technology," Durbin said. "If you went and added up the number of jobs at these clean-tech companies he visited, in all honesty, I think you're going to find a very modest number of

winners and losers — by pouring government money into a sector best determined by free-market forces.

Republicans and outside critics also have honed in on the political connections of some companies that have received federal help. The most attention has focused on Solyndra, a Silicon Valley solar company that ran into financial trouble after receiving a [\\$535 million federal loan guarantee](#) commitment. Last week, Republicans on the House Energy and Commerce Committee pressed the Office of Management and Budget to account for its role in the selection. Obama visited Solyndra's factory in May 2010, only weeks after it became public that independent auditors had questioned whether it could remain a "going concern."

Some of the biggest investors in Solyndra, which makes easy-to-install solar panels, were venture capital funds associated with Tulsa billionaire George Kaiser, a key Obama fundraiser. Rep. Cliff Stearns (R-Fla.), chairman of the Energy and Commerce Committee's subcommittee on oversight and investigations, said he is "concerned that there was a hurry to get this money out of the door and that companies and individuals that supported the president were among the beneficiaries."

A spokesperson said Kaiser would not comment for this article.

A White House spokesman, Clark Stevens, said Obama believes that renewable-energy innovations will break U.S. dependence on foreign oil and provide thousands of new jobs. The clean-tech sector is filled with success stories, he said.

"The president will continue to support these initiatives and highlight the American ingenuity, the people and the private-sector companies that are helping to generate jobs and foster our nation's 21st-century clean-energy economy," Stevens said.

### **A gusher of cash**

In the 2008 presidential race, Obama promised to invest at least \$150 billion over 10 years in innovative energy projects, and he corralled extensive support from energy start-ups and venture capitalists. As a candidate, he was the "first that got the importance of emerging-growth companies in creating jobs," said Mark Heesen, president of the National Venture Capital Association.

Obama collected twice as much campaign money from this group as did his Republican rival, Sen. John McCain (Ariz.). Numerous green-energy investors raised money for Obama and later won jobs or advisory roles in his administration.

The president laid out his agenda in his [first State of the Union](#) address, saying that a recession-strapped government must invest in clean energy to "build a new foundation for lasting prosperity."

There was intense competition for clean-tech stimulus dollars. Energy Secretary Steven Chu said his agency reviewed 50,000 applicants and chose 5,000, a 90 percent rejection rate.

For the winners, there was an added bonus when Obama or his Cabinet secretaries dropped by to tout progress. "You couldn't get that kind of publicity if you devoted all your advertising budget to it," said Brendan Doherty, an assistant professor at the U.S. Naval Academy who has studied and written about presidential travel.

Obama began his clean-tech travel in March 2009. At a number of companies the president visited, there were connections — not all of them close, to be sure — to his 2008 campaign. Over the months, Obama touted a Florida's utility's electric grid project (a company in an Obama fundraiser's portfolio was doing extensive business with the project) and a Nevada company that generates emission-free power from waste

A White House spokesman said these connections were purely coincidental. Numerous factors — including location, accessibility to airports and media accommodations — help decide where Obama will travel, the spokesman said. He said employees and investors in some companies visited by Obama also donated to Republicans and to the president's 2008 Democratic opponents.

Some of Obama's factory appearances have had a distinctly political feel. The trips have taken him to states where he did well in 2008 and where his message of a rebounding job market is helping set the stage for his reelection campaign.

### **A moment of glory**

Obama was scheduled to visit California for a political event when Solyndra's communications director, David Miller, called the White House to ask that a factory tour be added to his itinerary.

The White House already knew about the ambitious start-up, which had won an Energy Department commitment for a \$535 million federal loan guarantee, the first awarded under the stimulus plan. Guarantees make it easier for companies to secure private financing at lower interest rates and assure lenders that a loan will be covered by taxpayers if a recipient defaults.

Energy Secretary Chu flew out for a Solyndra factory groundbreaking, and Vice President Biden's image was beamed to the ceremony through a video feed.

After [Obama's visit](#) was scheduled, waves of Secret Service agents, military communications crews and White House advance teams descended on Solyndra. When the president strode onto the factory floor, the mood was festive as the crowd listened to him praise what he said were Solyndra's plans "to hire a thousand workers."

"The future is here," Obama said.

Buoyed by government confidence, Solyndra planned an initial public stock offering expected to raise \$300 million. Its largest investors were venture capital funds associated with [Kaiser, the Tulsa oil executive](#) who served as a major Obama fundraiser in 2008 and who has been a frequent White House visitor.

But just weeks before Obama's arrival, the company released sobering news from independent auditors evaluating its public offering plan. PricewaterhouseCoopers said Solyndra's losses and negative cash flow raised "substantial doubt about its ability to continue as a going concern." The report, covered by financial media, added to doubts on Wall Street.

Solar analyst Ramesh Misra, who works for the investment firm Brigantine Advisors, was skeptical about Solyndra's signature product. Its solar panels are composed of an array of glass tubes that are expensive to produce, causing investment advisers to question whether the product could compete with less-expensive Chinese models. Misra, who has no financial interest in Solyndra or its rivals, questioned the administration's decision.

"To think they could compete on any basis, that took a very big leap of faith," Misra said.

"Solyndra stands out," agreed Robert Lahey, an analyst with Ardour Capital who added that he thinks the government took a substantial risk in backing Solyndra.

A month after Obama's visit, the company withdrew its public offering plans. A few weeks later,

bypassed steps for awarding to five applicants, including Solyndra. The GAO did not publicly identify those five in its report; the Energy Department asked that some information about companies be excluded as business sensitive.

“Contrary to the GAO report, the department met every requirement for the Solyndra transaction,” an Energy Department spokesperson said, adding that all reviews were completed before any taxpayer money was obligated.

Solyndra announced in November that it would close its older factory and reduce its workforce by 127 people. Plant expansion plans were put on hold.

This year, the Energy Department’s inspector general criticized the agency for not maintaining e-mails discussing selections of loan-guarantee winners, and the House Energy and Commerce Committee, led by Rep. Fred Upton (R-Mich.), began investigating Solyndra’s selection. At a hearing last week, Republicans criticized the Office of Management and Budget for not answering questions and suggested that they may resort to subpoenas.

Solyndra chief executive Brian Harrison said the loan guarantee led to unrealistic expectations. Company officials said they never intended to hire 1,000 additional workers, as Obama said, but believed that Solyndra could create that many jobs in the “related supply chain.” Since the loan, Solyndra said, it has added about 310 net positions in-house.

With cumulative sales of more than \$250 million, Solyndra “doubled our production from 2009 to 2010, and we’ll double it again from 2010 to 2011,” Harrison said. “All in all, it’s a good story. I don’t focus on the political aspects of what happens in Washington. I’m focused on our business.”

While analysts remain skeptical, the federal government is increasing its bet. On June 10, the U.S. Export-Import Bank announced that it would provide \$10.3 million in financing to help Solyndra sell its solar panels to a supermarket distribution company in suburban Brussels.

### **A concerted focus**

Along with Capitol Hill fallout, the administration’s attention to certain clean-tech companies has led to some industry concerns. Executives of some struggling start-ups ask whether the administration rigorously examines companies and their products before endorsing a favored few.

Charlotte-based Celgard, for example, already was considered a global industry leader in manufacturing a battery component used in consumer electronics, including electric vehicles. It applied for stimulus funding to help build a new factory, and in August 2009, the Energy Department awarded it a \$49 million stimulus grant. The company was one of 48 winners from among an estimated 240 applicants in the electric vehicle and battery sector.

[Chu came from Washington to announce the grant](#) at the Celgard factory, praising “innovators and entrepreneurs who are rebuilding this economy from the ground up.”

“These grants were chosen not to simply boost a few companies but to start an entire advanced battery industry in America,” he said.

Obama lauded an unnamed company fitting Celgard’s description in his 2010 State of the Union address. And in early April 2010, he flew to Charlotte to spotlight Celgard’s progress under the Recovery Act.

A few months later, Celgard won more praise. In July, Obama lauded its technology in a Kansas City speech, and days later, Labor Secretary Hilda L. Solis showed up at Celgard to signal more good news: Since Obama's visit, the company had added 40 workers.

Amid this flurry of White House interest, some competitors questioned why Celgard warranted so much attention.

During the official visits, federal regulators were pursuing a case against Celgard's parent company, Polypore. The Federal Trade Commission had charged the company with trying to monopolize several battery markets and control prices by buying one of its few U.S. competitors. Obama's visit came a month after an administrative judge agreed that Polypore's purchase created an illegal monopoly and that it must sell the competitor. The case is under appeal.

"Generally, we're concerned with what kind of due diligence the administration did before throwing out that kind of money and attention," said Bryan Godber, vice president of Trojan Battery, which faced the prospect of higher prices for Polypore products. "They are giving some companies massive advantages over others."

Meanwhile, Polypore [has seen its stock rise](#) more than tenfold during Obama's tenure — from \$4.15 a share in November 2008 to more than \$64 a share in May 2011 — largely because of the booming market for electric vehicles. Private-equity firm Warburg Pincus has seen its original \$300 million investment more than triple in value and recently has been locking in gains with stock sales. (More than \$253,000 was raised for Obama in 2008 from Warburg employees and their families, campaign finance records show.)

The chairman of Polypore's board, Warburg Pincus director Michael Graff, and his wife donated \$14,600 toward Obama's 2008 presidential bid, including \$10,000 given shortly before the election to an Obama committee geared to get out the vote in battleground states. Graff, a registered Republican, made no donations to Republicans in the 2008 cycle, records show.

Warburg spokesman Ed Trissel said political contributions by Graff or other members of the firm had "no connection with any interactions between the Obama administration and Polypore."

Still, competitors question whether the administration could create a more level playing field.

Abbas Samii, chief executive of battery separator start-up Advanced Membrane Systems, tried to win several million dollars through the Energy Department to launch a North Carolina plant but was turned down.

"We could have achieved so much with just one-tenth of that money," he said, referring to Celgard's \$49 million stimulus grant. "Now, not only are we struggling, our competitors got all the money."

### **A sign of accomplishment**

An image of Obama speaking from a factory floor brings global attention to companies trying to raise capital and best competitors. Celgard posted photos of the president's visit in its corporate hallways and cited it in presentations as evidence of "accomplishments and progress."

Orion Energy Systems, a small Wisconsin lighting company, believed a presidential visit was so important to business that it worked political connections for two years to get Obama to its Manitowoc factory.

"With customers, it is huge credibility," said Orion chief executive Neal Verfuhrth.

which he declared that the nation faces a "Sputnik moment" in

company, counts among its largest institutional investors a firm that has raised more than \$1 billion for Obama fundraisers. A spokesman for the fund said Rogers planned

investors said they could only wish for such a moment of glory.

t of Cooper Lighting in Atlanta, estimated that his company's sales are about 10 percent higher than Orion, but it is based in a Republican stronghold.

the president," Eubanks said. He added that he's not expecting

to be mentioned in this report.

## APPLY

» News > ATVM Loan Program to Host Webinar on Online Application Portal

March 9, 2012

**ATVM Loan Program to Host Webinar on Online Application Portal**

The Advanced Technology Vehicles Manufacturing Loan Program (ATVMLP), overseen by the Department of Energy's Loan Programs Office, is hosting a webinar on Thursday, March 15, 2012 at 1pm EDT to discuss its new online application portal. The online portal provides a convenient and secure way to submit applications to the ATVM Loan Program. In addition to the portal, the webinar will cover eligibility requirements and characteristics of a strong application, followed by a brief question and answer session. Applicants, potential applicants, and industry professionals wishing to apply for or learn more about ATVM's direct loans to support the development of advanced technology vehicles and associated components in the U.S. are welcome to attend.

ATVMLP, through the Department of Energy, provides direct loans to manufacturers of advanced technology vehicles and related automotive components with projects in the U.S. The ATVM Loan Program supports the President's goal to support jobs in the automotive and component manufacturing industries and will help ensure that new advanced technology vehicles (ATV) meet a higher standard (125 percent of the 2005 base year CAFE fuel efficiency standards) than similarly classed conventional technology vehicles. To date, the Program has committed nearly \$8.4 billion to support innovative vehicle technologies, including plug-in vehicles, high-efficiency gasoline vehicles, and natural gas vehicles that meet higher fuel efficiency standards. The Program has substantial remaining authority to support additional eligible projects and is currently accepting loan applications. For more information on the ATVMLP, please visit [www.lpo.energy.gov](http://www.lpo.energy.gov).

Please click on the following link to register for the upcoming webinar:  
<https://www1.gotomeeting.com/register/350436072>. If you have additional questions or experience problems registering, please contact Sonia Taylor, External Affairs, DOE's Loan Programs Office at [sonia.taylor@hq.doe.gov](mailto:sonia.taylor@hq.doe.gov).



## Diesel exhausts do cause cancer, says WHO

**Chris Gallagher**

Science reporter, BBC News

**Diesel fumes from diesel engines do cause cancer, a panel of experts working for the World Health Organization**

has decided that the exhausts were definitely a cause of lung cancer and may also cause tumours in the bladder.

The findings are based on research in high-risk workers such as miners, railway workers and truck drivers.

Therefore, the panel said everyone should try to reduce their exposure to diesel exhaust fumes.

The International Agency for Research on Cancer, a part of the World Health Organization, had previously labelled diesel engine exhausts as probably carcinogenic to humans.

The panel now labelled exhausts as a definite cause of cancer. Diesel exhausts [are now in the same group](#) as carcinogens such as asbestos, from wood chippings to plutonium and sunlight to alcohol.

People working in at-risk industries have about a 40% increased risk of developing lung cancer.

Christopher Portier, who led the assessment, said: "The scientific evidence was compelling and the Working Group's conclusion was unanimous, diesel engine exhaust causes lung cancer in humans."

In addition to the health impacts from diesel particulates, exposure to this mixture of chemicals should be reduced wherever possible.

The impact on the wider population, which is exposed to diesel fumes at much lower levels and for shorter periods of time, is less clear.

Dr. Straif, also from IARC, said: "For most of the carcinogens when there is high exposure the risk is higher, when the exposure is lower the risk is lower."

There have been considerable efforts to clean up diesel exhausts. Lower sulphur fuel and engines which burn the fuel more efficiently are now in use.

FOIA-Central@hq.doe.gov  
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**Popular In Opinion**

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- 5 U.S. policy should encourage oil and gas exploration**

**Power corrupts, even at highest levels of government. Even in the White House.** That's the message from the government's energy loan guarantees, as revealed by a little-reported House Government Reform and Oversight subcommittee hearing last month.

At issue was the approval of loan guarantees for BrightSource Energy, a politically connected corporation whose chairman, John Bryson, became Obama's secretary of Commerce last October.

John M. Woolard, president and CEO of BrightSource Energy, testified that his company's \$1.6 billion loan guarantee for a solar power plant "was awarded completely on the merits of the project."

But Chairman Jim Jordan, R-Ohio, produced an email from Woolard to Energy Secretary Steven Chu's senior advisor, Matt Rogers, that hints the White House might have been involved. Dated January 4, 2010, the email states that Peter Darbee, CEO of Pacific Gas & Electric, had himself spoken to President Obama: "Darbee at PG&E talked directly to Obama about the program's challenges and the bad situation it puts him in." By "bad situation," Darbee meant that his company needed solar power to comply with California's law to produce 20 percent of its electricity from renewables by 2017 (later raised to 33 percent by 2020).

Woolard also wrote to Rogers: "Please don't distribute this, but I thought you might want to know there is a large group in NYC focused on this transaction and DCE ability to execute. Things are not good and there is a sizeable group of private equity and investment banks writing a letter to Chu about the status of the program and the inability to get loans through -- can you suggest a good time to talk?"

Coincidentally, the following month, Chu announced conditional loan guarantees of \$1.37 billion for BrightSolar to build three utility-scale solar power plants on federal land in the Mojave Desert, to be the largest solar power electricity generating complex in the world.

The email stated, "The Whitehouse [sic] needs to focus on finalizing the loan guarantee for what would be the largest solar thermal project in the world. BrightSource Energy's Ivanpah project was conditionally approved by DOE more than one year ago and is in the very final stages of being formally completed ... We need a commitment from the WH to quarterback loan closure between OMB and DOE by March 18."

Chairman Jordan said to Woolard, "You're asking the guy who's in charge of making the final decision to proofread an email that your chairman is going to send to the White House chief of staff. And you say there's no political involvement?"

In another coincidence (or not), the loan received final approval in April 2011, a month after Silver viewed the "proofreading request." The draft email to Daley had served its purpose without even being sent. After all, if a political appointee knows that the White House chief of staff is concerned about a loan in his portfolio, he will quickly deal with it.

So BrightSource has its government loan, and PG&E has committed to buying BrightSource's expensive solar power, instead of cheap natural gas, in order to fulfill California's renewable electricity generation requirement.

With energy loan guarantees and subsidies, crony corruption is the only way to play the game. That's why Congress should eliminate them.

# Solyndra Not the Only Questionable Obama Loan to 'Green' Energy

MONIQUE DE RUGY

9, 2012

Monique de Rugy is a senior research fellow at the Mercatus Center at George Mason University.

Every public failure of energy company Solyndra has focused a lot of attention on the Department of Energy's loan guarantee programs. Beyond Solyndra's failure, it's interesting to take a closer look at these programs. The economic justification for any government-sponsored lending in a loan guarantee program must rest on a well established failure of the private sector to allocate loans efficiently, meaning that deserving recipients would not have obtained capital on their own. Absent such a private sector failure, the Department of Energy's activities would simply be a wasteful expenditure of taxpayer money, politically motivated at best, subsidy to this sector of the economy.

To measure the Department of Energy results, I looked at the flow of the Department of Energy credits to evaluate who receives them and whether the department is meeting its stated policy objectives, such as assisting new start-ups or companies that have a hard time accessing capital, and encouraging the creation of green jobs.

In 2009, Department of Energy has guaranteed \$34.7 billion in loans, 46 percent through the 1705 loan program, 30 percent through the 1703 program, and 14 percent through the Advanced Technology Vehicles Manufacturing loan program.

[See a collection of political cartoons on energy policy.]

The 1705 program (under which Solyndra received funding) deserves particular attention. This program is a product of the economic stimulus act of 2009. The data shows that:

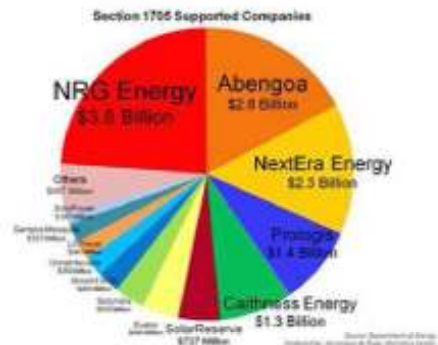
26 projects were funded under the 1705, and guaranteed roughly \$16 billion in total.

Some 2,378 permanent jobs were claimed to be created under the program. This works out to a potential cost per job of \$6.7 million.

The recipient of the most 1705 loans is NRG Energy Inc.

NRG Energy Inc. received \$3.8 billion (23.7 percent of the overall amount guaranteed under the 1705).

Four companies received 64 percent, or \$10.3 billion, of the total amount guaranteed under the 1705 program.



What does this mean? First, very few permanent green jobs were created under the 1705 loan program (or any of the other loan programs). To the extent that permanent "green jobs" were created, the \$6.7 million cost per job is quite spectacular. This trend and number also suggest that the 1705 program is not a job program.

[See a collection of political cartoons on the economy.]



guaranteed by the federal government since 2009 with vast resources. This includes loans such as the banks number 80 on the list of America's Fortune 500. The project was worth the access to capital, if the project was worth the large amount of subsidies or special treatment. I think that the answer to subsidies they dislike is going to the type of companies that the Department

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June 25, 2012 Monday

PRESS RELEASE

422 words

GRASSLEY, THUNE CONTINUE TO SEEK ANSWERS ON FEDERAL LOAN TO LUXURY CAR MAKER

CHUCK GRASSLEY, SENATOR, SENATE

For Immediate Release

Grassley, Thune Continue to Seek Answers on Federal Loan to Luxury Car Maker

June 25, 2012

WASHINGTON - Sen. Chuck Grassley and Sen. John Thune today sent a follow-up letter to the Department of Energy again requesting that the Obama Administration explain its selection of a luxury automaker - now described as "troubled" -- for a \$529 million federal loan for advanced technology vehicles manufacturing. The federal government made part of the loan to the Fisker Automotive Corporation, then froze the remaining portion, raising questions about whether the company was vetted properly in the first place. Grassley and Thune originally sent a letter on April 20 to the Energy Department asking for information regarding the troubled loan. The department's response on May 18 lacked much of the requested information.

"The response doesn't address the questions we asked regarding the accuracy of the department's statistics. That's cause for concern," Grassley said. "There's also a lot of discussion of the due diligence that went into making the loan but no evidence to show what that due diligence actually was. The riskiness of loans to companies that may or may not be able to pay them back deserves scrutiny. The taxpayers can't and shouldn't have to subsidize these decisions."

"After promising to be the most open and transparent administration in history, it's unfortunate that with millions of taxpayer dollars at stake the Obama administration will not answer our specific questions about the troubled Advanced Technology Vehicles Manufacturing program, said Thune. "The Department of Energy's response is evasive at best and fails to address the questionable details surrounding the taxpayer-backed loan granted to Fisker to make a luxury car. I will continue to work with Senator Grassley to get the answers that taxpayers expect and deserve."

The Energy Independence and Security Act of 2007 required the creation of a direct loan program from the federal government to car companies through the Advanced Technology Vehicles Manufacturing incentive program. Fisker's two planned vehicles would sell for more than \$100,000 and about \$50,000. The high retail prices seem to indicate the vehicles would be out of reach for most Americans, thereby seeming like a questionable choice of investment for a federal program. Also, the senators questioned whether the company's vehicle production in Finland diminishes the goal of developing advanced vehicle technology to create jobs in the United States.



Tesla Motors was one of the companies selected to receive loans from an Energy Department program meant to create jobs and spur development of fuel-saving cars. Other recipients include Ford Motor Co., Nissan North America and Fisker Automotive. Credit: Emma Schwartz/CPI

An Energy Department loan program meant to create jobs and spur development of fuel-saving cars — bestowed with \$25 billion in public money — lacks clear benchmarks to ensure taxpayers' dollars are properly spent or that the goals are achieved, a new Government Accountability Office [report](#) concludes.

Short of funds, the program might not even be able to lend the full \$25 billion approved by Congress — creating even fewer jobs than envisioned.

This latest criticism of Energy Department grants and loans follows earlier inquiries that have raised questions about whether the Obama administration is favoring certain companies in awarding federal aid, including money intended to stimulate the economy by creating jobs.

As the Center for Public Integrity has [reported](#), a number

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Taxpayer billions could fall short in creating new jobs, more efficient cars <http://bit.ly/fkOiGy> via @PublicI

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to question. The Energy Department "lacks sufficient performance measures that would enable it to fully assess whether the ATVM program has achieved its three goals," the GAO concluded.

In particular, investigators found the department "lacks performance measures" allowing it to assess success in "advancing automotive technology and protecting taxpayers' financial interests."

The GAO also concluded that the department may not be able to loan the full \$25 billion because of higher-than-expected credit subsidy costs associated with earlier loans, "in part, a reflection of the risky financial situation of the automotive industry at the time the loans were made.

"As a result of the higher credit subsidy costs, the program may be unable to loan the full \$25 billion allowed by statute."

The report comes amid escalating scrutiny of spending in a department infused with \$35 billion in federal stimulus money to complement its annual \$28 billion budget.

Last year, the GAO chided the Energy Department for its handling of other loan programs geared toward new technologies and reducing emissions, finding that the department "had treated applicants inconsistently in the application review process, favoring some applicants and disadvantaging others."

The Energy Department's inspector general, Gregory Friedman, said his office has 64 open investigations centered on stimulus spending. They include "the directing of contracts and grants to friends and family," Friedman [told](#) the House Energy and Commerce Subcommittee on Oversight and Investigations earlier this month.

And, a joint investigation by the Center for Public Integrity and ABC News found that department grants, loans and loan guarantees have flowed to energy firms financially supported by fundraisers for President Barack Obama. The White House said political connections play no factor in the contract awards.

The ATVM program has faced questions from companies shut out from its money flow. To date, 130 companies have applied for funding yet just a handful have won the loans.

One of the firms turned down for funding in that loan pool complained in a five-page letter to Energy Secretary Steven Chu in September 2009 that it had been given no reason for its rejection and had to call the Energy Department multiple times to learn what happened. "DOE reviewers never even talked to the founder, inventor, engineers, project leads or primary contractors to obtain additional information," said the letter from the California electric car maker, XP Vehicles, Inc., obtained under the Freedom of Information Act.

Efforts to analyze the criteria the Energy Department has used to select the companies that have received federal loans or loan guarantees have proved challenging, even for government auditors.

The author of the GAO's recent energy reports, Frank Rusco, said in an interview that Energy Department officials used an opaque process to select loan recipients in programs the GAO explored last year. He said the agency could not, or would not, explain why some companies were given a quick green light for approval, while others waited years for a response.

"I think it's problematic," Rusco said. "I think they need to have a systematic, transparent and equitable process. And I think if they're not seen to have that, it's going to create issues, it's going to create

er, executive director of the Energy Department's loan programs office, told set up a rigorous application screening process and closely monitors the final borrowers.

er, said the department should be doing more, particularly with so much mo

engineering expertise to aid ATVM staff in monitoring the projects, DOE ha steps to become adequately informed about the technical progress of the p Thus, DOE cannot be assured that the projects are on track to deliver the v a position to require the borrowers to make any corrections in a timely and e

a reporter for ABC News. *This story was a collaboration between the network Integrity.*

## DANIEL COHEN

Daniel Cohen is the Assistant General Counsel for Legislation and Regulatory Law at the U.S. Department of Energy. His office provides legal support and advice on legislative matters throughout the Department, develops Departmental policy and views on pending legislation, drafts legislative proposals and supporting documents, and prepares, coordinates and reviews bill comments for submission to Congress. His office also provides advice on administrative law to all Departmental agencies, including legal review of regulatory actions, and supports programs throughout the Department on requirements for developing Departmental rules, directives, and other generally applicable policies.

Prior to joining the Energy Department, Mr. Cohen served for thirteen years as an attorney in the General Counsel's Office at the Department of Commerce. During his tenure at the Commerce Department, Mr. Cohen was appointed the first-ever Chief Counsel for Regulation.

In this capacity, he oversaw the Office's Regulatory Division, which is responsible for legal review of all regulatory actions of the Department. The division is also responsible for developing and implementing the Department's regulatory policy.

Prior to joining Commerce, Mr. Cohen served as regulatory and antitrust counsel to the National Council on Compensation Insurance and was a regulatory and legislative attorney in the Office of the General Counsel at the U.S. Small Business Administration.

He has authored several law review articles on the subject of Federal agency rulemaking, including *Congressional Review of Agency Regulations*, 49 Admin L. Rev. 95 (1997).

Additionally, he has been invited to speak on United States rulemaking procedure to a variety of groups, including lawyers and government officials from around the world. He also has served as Chair of the Rulemaking Committee and as Budget Officer of the American Bar Association's Section of Administrative Law and Regulatory Practice.

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**Solicitation Number**  
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## ASSESSING THE DEPARTMENT OF ENERGY LOAN GUARANTEE PROGRAM

VERONIQUE DE RUGY

Senior Research Fellow

In his famous book *Economics in One Lesson*, economist Henry Hazlitt wrote, “Government encouragement to business is sometimes as much to be feared as government hostility.”<sup>1</sup>

In 2009, renewable energy company Solyndra received \$535 million through the federally backed 1705 loan guarantee program of the Department of Energy (DOE). Two years later the firm filed for bankruptcy and had to lay off its 1,100 employees, leaving taxpayers bearing the cost of the loan.

For obvious reasons, more than any other recent events, the waste of taxpayers’ money due to Solyndra’s failure has attracted much attention. However, the problems with loan guarantees are much more fundamental than the cost of one or more failed projects. In fact, the economic literature shows that (1) every loan guarantee program transfers the risk from lenders to taxpayers, (2) is likely to inhibit innovation, and (3) increases the overall cost of borrowing. At a minimum, such guarantees distort crucial market signals that determine where capital should be invested, causing unmerited lower interest rates and a reduction of capital in the market for more worthy projects. At their worst, they introduce political incentives into business decisions, creating the conditions for businesses to seek financial rewards by pleasing political interests rather than customers. This is called cronyism, and it entails real economic costs.<sup>2</sup>

Yet, these loan programs remain popular with Congress and the executive. That’s because in general most of the financial cost of these guaranteed loans will not surface for many years. That means that Congress can approve billions of dollars to benefit special interests, with little or no immediate impact to federal appropriations in the short term, because they are almost entirely off-budget.

### HOW DO THESE LOAN GUARANTEES WORK?

The DOE Loan Programs Office (LPO) administers three separate loan programs: (1) Section 1703 loan guarantees, (2) Section 1705 loan guarantees, and (3) Advanced Technology Vehicle Manufacturing (ATVM) loans. Here are descriptions of the three loan programs, as explained by DOE:<sup>3</sup>

1. Henry Hazlitt, *Economics in One Lesson*, in Chapter VI Credit Diverts Production, Laissez-Faire Books, Benicia, CA, 1946, p. 27.  
2. Matt Mitchell, *The Pathology of Privileges* (working paper, Mercatus Center at George Mason University, July 2012).  
3. United States Department of Energy, accessed June 13, <https://lpo.energy.gov/>.

conventional private financing due to high technology risks.

- Advanced Technology Vehicles Manufacturing (ATVM) loans support the development of advanced technology vehicles (ATV) and associated components in the United States. They also meet higher efficiency standards.
- The Section 1705 Loan Program authorizes loan guarantees for U.S.-based projects that commenced construction no later than September 30, 2011 and involve certain renewable energy systems, electric power transmission systems, and leading edge biofuels.

According to LPO's website, DOE's loan guarantee authority originated from Title XVII of the Energy Policy Act of 2005 (P.L. 109-58).<sup>4</sup> Under Section 1703, the federal government can guarantee 80 percent of a project's total cost. The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) amended the Energy Policy Act of 2005 by adding Section 1705.<sup>5</sup> Section 1705 was created as a temporary program, and 1705 loan guarantee authority ended on September 30, 2011.

The dollar volume of loans that can be guaranteed under DOE's authority is predetermined by congressional appropriations that oversee the program. A simple way to explain how these loans work is the following: If a recipient defaults on its loan, the federal government pays the remainder of the debt to the lenders and repossesses all of the assets from the unfinished projects.<sup>6</sup>

As with other loan programs, to prevent taxpayers' exposure, the federal government has established a credit subsidy fee. In this case, the cost of the fee is determined by DOE, with guidance from OMB. The lenders usually charge the up-front guarantee fee to the borrower after the lender has paid the fee to DOE and has made the first disbursement of the loan.

This is not the case for 1705 loans, however. Under the stimulus bill, DOE received appropriated funds to pay for credit subsidy costs associated with Section 1705 loan guarantees, which, after rescissions and transfers, was \$2.435 billion. As the Congressional Research Service rightly puts it, "Section 1705 loan guarantees were very attractive as they provided an opportunity to obtain low-cost capital with the required credit subsidy costs paid for by appropriated government funds."<sup>7</sup>

DOE does not provide loans directly. Instead, borrowers have to apply to qualified finance organizations. These lenders are expected to perform a complete analysis of the application. Then DOE reviews the lender's credit analysis rather than conducting a second analysis. DOE still makes the final credit and eligibility decision.

## DO LOAN GUARANTEES DO WHAT THEY CLAIM TO DO?

Leaving aside the question of whether the government should encourage the production of certain goods or services, the economic justification for any government-sponsored lending or loan guarantee program must rest on a well-established failure of the private sector to allocate loans efficiently (meaning that deserving recipients could

4. Section 1703 of the Energy Policy Act of 2005 (P.L. 109-58).

5. Section 1705 of the Energy Policy Act of 2005 (P.L. 109-58). Section 1705 was created by amending the Energy Policy Act of 2005 through the American Recovery and Reinvestment Act of 2009 (P.L. 111-5).

6. However, the Office of Management and Budget has calculated that only 55 percent of loan can be recouped from the sale of assets.

7. Phillip Brown, "Solar Projects: DOE Section 1705 Loan Guarantees," (Congressional Research Service, October 25, 2011), accessed June 13, 2012, [http://op.bns.com/erw.nsf/id/jstn-8mzsyj/\\$File/CRSSolar.pdf](http://op.bns.com/erw.nsf/id/jstn-8mzsyj/$File/CRSSolar.pdf).

Yet, many argue that some public policy objectives require the sacrifice of marketplace efficiency. It is an accepted feature of modern American government that some public interests or social policy gains outweigh economic losses. In the case of green energy, the government's lending programs could fulfill specific public policy objectives that the marketplace on its own would not otherwise serve or would supply at suboptimal levels. But do they?

In describing its role in the economy, the DOE proclaims that its loans help save the planet<sup>8</sup> by helping to secure funding for the earlier-stage technologies or the later commercialization stage—known as the manufacturing “Valley of Death.”<sup>9</sup> It also claims that the loan recipients will generate economic growth and “green” jobs that otherwise would not appear. DOE can thus be judged on its ability to meet these public policy goals—namely, to fill the supply-and-demand gap in the clean energy loan market, particularly for startups.

To measure the DOE results, I looked at the flow of DOE credits to evaluate who receives them and whether the DOE is meeting its stated policy objectives of promoting new startups and encouraging the creation of green jobs.

A close examination demonstrates that neither stated DOE policies nor its actual lending patterns provide evidence that its loan guarantees serve any of its defined public policy purpose.

#### FOLLOWING THE 1705 LOAN GUARANTEE PROGRAM MONEY

Since 2009, DOE has guaranteed \$34.7 billion, 46 percent of it through the 1705 loan program, 30 percent through the 1703 program, and 14 percent through the ATVM.<sup>10</sup>

Loan Guarantees by Program



Source: U.S. Department of Energy, Loan Guarantee Programs

The 1705 (under which Solyndra received funding) authorized loan guarantees for programs for “certain renewable energy systems, electric power transmission systems and leading edge biofuels projects that commence construction no later than September 30, 2011.” This program is a product of the economic stimulus bill of 2009. As mentioned before, this program offered borrowers better terms than the 1703—in some cases the government paid for a substantial fee out of appropriated funds, one that is the borrower’s responsibility under the 1703. Also, many 1703-eligible projects were also eligible under the 1705.

The data shows that:

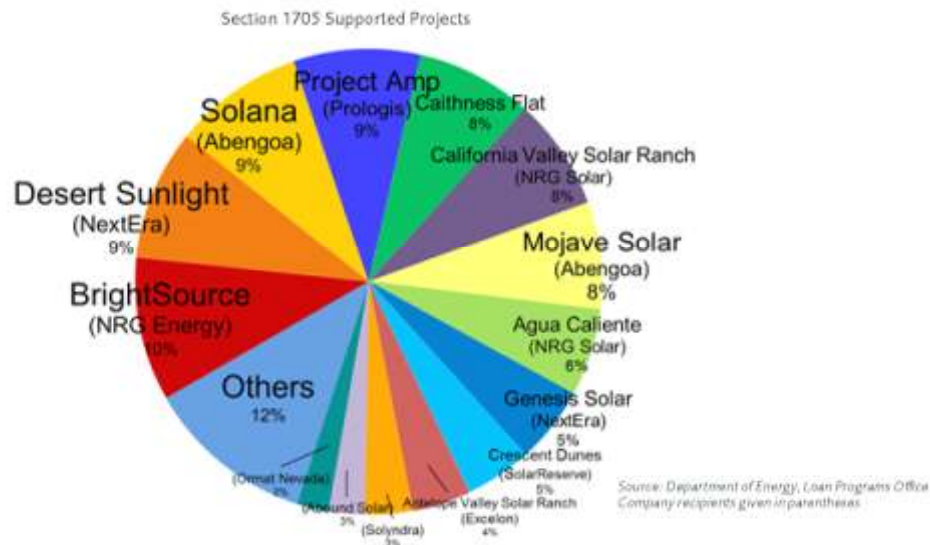
8. Mike King and W. David Montgomery, “Let’s Reset Our Energy Policy Starting with Loan Guarantees,” in *Pure Risk: Federal Clean Energy Loan Guarantees*, ed. Henry Sokolski (Nonproliferation Policy Education Center, 2012).

9. Sustainablebusiness.com, “Clean Energy: Crossing the Valley of Death,” June 2010, <http://www.sustainablebusiness.com/index.cfm/go/news.display/id/20544>.

10. U.S. Department of Energy, Loan Programs Office: [https://lpo.energy.gov/?page\\_id=45](https://lpo.energy.gov/?page_id=45)



- The recipient of the most 1705 loans is NRG Energy Inc. (BrightSource).
- NRG Energy Inc. (BrightSource) received \$1.6 billion (11 percent of the overall amount guaranteed under the 1705).
- The top 10 recipients of loans under the 1705 program:
  - Are all solar generation companies,
  - Received 76 percent of the overall amount guaranteed,
  - Received \$12.2 billion in loan guarantees, and
  - Included NextEra Energy Resources, LLC (Desert Sunlight), a fortune 200 company; Abengoa Solar Inc. (Solana), a Spanish multinational company; and Prologis (Project Amp), a global real estate investment trust. Utility firms like NRG Energy received three separate loans in the top 10 recipient list.
- Prologis received \$1.4 billion (8.75 percent of the total) to install solar panels on top of a building it owns.
- Solyndra, the now bankrupted solar company, received \$535 million in loan guarantees or 3.34 percent of the total.
- Cogentrix, a wholly owned subsidiary of the Goldman Sachs Group Inc, received a \$90 million guarantee from the government.

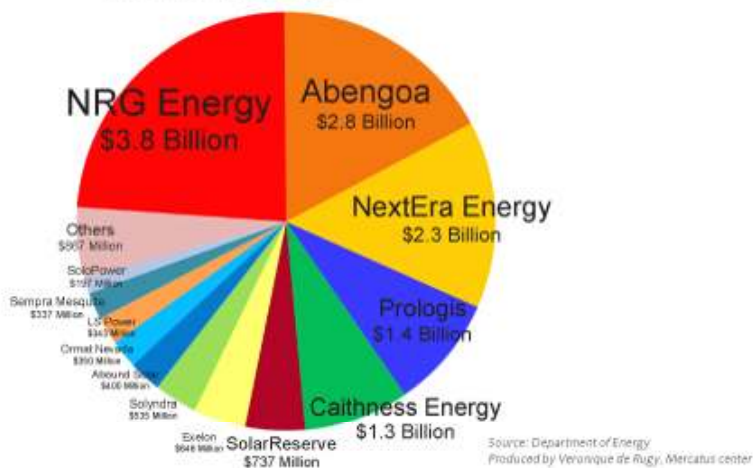


If we organize the data by companies receiving 1705 loans, we find:

- The recipient of the most 1705 loans is NRG Energy Inc.
- NRG Energy Inc. received \$3.8 billion (23.7 percent of the overall amount guaranteed under the 1705).
- Four companies received 64 percent, or \$10.3 billion, of the total amount guaranteed under the 1705 program. These companies are:
  - NRG Energy,
  - NextEra Energy,
  - Abengoa, and
  - Prologis.

First, it should be noted that very few permanent green jobs were created under the 1705 loan program (or any of the other loan programs). The Obama administration had initially pushed these projects as job generators, claiming that it could create 5 million jobs in America through investment in green technology.

Section 1705 Supported Companies



Also, to the extent that "green jobs" were created, the \$6.7 million cost per job is quite spectacular. This trend and number probably dismisses this particular loan program as a job program.

Second, as we can see here, under the 1705 program most of the money has gone to large and established companies rather than startups. These include established utility firms, large multinational manufacturers, and a global real estate investment fund. In addition, the data shows that nearly 90 percent of the loans guaranteed by the federal government since 2009 went to subsidize lower-risk power plants, which in many cases were backed by big com-

This probably means that if there were an actual gap between the supply and demand for loans for energy companies, startups, or others, this program wouldn't be filling it. In fact, most of these loans look like government transfers of the worst kind: subsidies to very large corporations very much resembles cronyism.

Third, there seems to be an even more troubling trend of "double dipping" by large companies that received loan guarantees from the DOE program. Many of the companies that have benefitted from subsidized loans under the 1705 guarantee program also received additional grants under the American Recovery and Reinvestment Act (ARRA). For example, Prologis (which benefitted from \$1.4 billion in subsidized loans) received a grant for \$68,000 for the purpose of "rent for warehouse space" under the Recovery Act.

Green Mountain Energy, a company of NRG Energy, received two grants under the ARRA in the second quarter of fiscal year 2011. Likewise, Reliant Energy and Reliant Energy Tax Retail LLC, two other NRG Energy companies, reported receiving at least 37 grants under the ARRA. These grants augmented the \$3.8 billion in loan guarantees for NRG Energy distributed under the Section 1705 Loan Program.

NRG will also be eligible to receive \$430 million from the Department of the Treasury.<sup>12</sup> In addition, many companies benefited from the Department of Treasury 1603 grants.<sup>13</sup>

Quoted in the *New York Times* recently, NRG's chief executive, David W. Crane, explained how his company and its partners have secured \$5.2 billion in federal loan guarantees, plus hundreds of millions in other subsidies for four large solar projects. "I have never seen anything that I have had to do in my 20 years in the power industry that involved less risk than these projects," he said in a recent interview. "It is just filling the desert with panels."<sup>14</sup>

Examples of companies benefitting from multiple assistance programs initiated during this period abound. For instance, in addition to the \$538 million it received under the 1705 loan program, Solyndra benefited from a \$10.3 million loan guarantee that the Ex-Im Bank extended to a Belgian company (described in the Ex-Im deal data as "Zellik Ii Bvba") to finance a sale of Solyndra products.<sup>15</sup>

Solyndra isn't alone. First Solar's Antelope Valley project received a \$646 million 1705 loan in 2011 through its partner Exelon, and per my calculation from the Ex-IM Bank FOIA deal data information for FY2011,<sup>16</sup> the company also scored \$547.7 million in loan guarantees to subsidize the sale of solar panels to solar farms abroad.

More troubling is the fact that some of the Ex-Im money went to a Canadian company named St. Clair Solar, which is a wholly owned subsidiary of First Solar.<sup>17</sup> St. Clair Solar received a total of \$192.9 million broken into

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11. CNN Money, America's Fortune 500 Companies. <http://money.cnn.com/magazines/fortune/fortune500/2012/snapshots/10777.html>

12. Eric Lipton and Clifford Krauss, "A Gold Rush of Subsidies in Clean Energy Search," *New York Times*, November 11, 2011

<http://www.nytimes.com/2011/11/12/business/energy-environment/a-cornucopia-of-help-for-renewable-energy.html?pagewanted=all>.

13. Department of Treasury: 1603 <http://www.treasury.gov/initiatives/recovery/Pages/1603.aspx>

14. Eric Lipton and Clifford Krauss, "A Gold Rush of Subsidies in Clean Energy Search," *New York Times*, November 11, 2011

<http://www.nytimes.com/2011/11/12/business/energy-environment/a-cornucopia-of-help-for-renewable-energy.html?pagewanted=all>.

15. Export-Import Bank of the United States, 2011 Annual Report, <http://www.exim.gov/about/reports/ar/2011/index.html>, p. 30.

16. <http://www.exim.gov/open/>

17. Tim Carney, Firm Sells Solar Panels to Itself – Taxpayers Pay, *The Washington Examiner*, March 18th 2010,

<http://campaign2012.washingtonexaminer.com/article/firm-sells-solar-panels-itself-taxpayers-pay/434251>.

This double-dipping by energy companies isn't new, unfortunately. While there is no doubt that the deals are lucrative for the companies involved, taxpayers have a lot to lose. Further, double-dipping provides evidence that businesses will be tempted to steer away from productive value creation for society and instead work on narrowly serving political interests for financial gain.

## THE CASE AGAINST CLEAN ENERGY LOAN GUARANTEES

A great deal of attention has been focused on Solyndra, a startup that received \$528 million in federal loans to develop cutting-edge solar technology before it went bankrupt, had to lay off over a thousand workers, and left taxpayers to foot the bill. Obviously, the considerable waste of taxpayers' money is upsetting. But it is only one aspect of the fundamental problems caused by loan guarantee programs in general, and DOE's clean energy loan programs in particular.

### 1. Socialized Losses and Privatized Gains

Historically, loans guaranteed by the government have had a higher default rate than the loans issued by the private sector without government guarantee. For instance, the Small Business Administration (SBA) has a long-term default rate of roughly 17 percent.<sup>19</sup> This compares to 4.3 percent for credit cards and 1.5 percent for bank loans guaranteed by the Federal Deposit Insurance Corporation.

Also, the Congressional Budget Office has calculated that the risk of default on the DOE's nuclear loan guarantee program, for example, is well above 50 percent.<sup>20</sup> In 2011, the CBO updated its study and replaced the embarrassing default rate with a list of variables affecting the rate.<sup>21</sup> While it doesn't provide a specific rate, the report asserts that higher equity financing of these projects would reduce the risk of default. However, this is rarely the case, as most loan guarantee programs cover 80 percent of their financing through debt rather than equity.

Moreover, according to the CBO, when the federal government extends credit, the associated risk of those obligations is effectively passed along from private lenders onto taxpayers who, as investors, would view this risk as costly. In other words, when the federal government encourages a risky loan guarantee it is "effectively shifting risk to the members of the public."

Also, if the loan isn't repaid, then the cost of the investment is to taxpayers. However, if the loan is repaid as expected, the lender will benefit from all the interest payments it collected thanks to a fairly risk-free loan, and the borrower will collect the fruit of its successful business venture. In other words, loan guarantee programs are yet another way that the federal government socializes losses while privatizing benefits.<sup>22</sup>

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18. Tim Carney, *Firm Sells Solar Panel to Itself – Taxpayers Pay*, *The Washington Examiner*, March 18th 2010, <http://campaign2012.washington-examiner.com/article/firm-sells-solar-panels-itself-taxpayers-pay/434251>.

19. Veronique de Rugy, "Banking on the SBA" (*Mercatus on Policy*, 2007, Mercatus Center at George Mason University) accessed on June 13, 2012, <http://mercatus.org/publication/mercatus-policy-banking-sba>.

20. Pamir Wang, "Federal Clean Energy Loan Guarantees: Their Moral Hazards," in *Pure Risk: Federal Clean Energy Loan Guarantees* ed. Henry Sokolski (Nonproliferation Policy Education Center, 2012)

21. Congressional Budget Office (CBO), "The Cost-Effectiveness of Nuclear Power for Navy Surface Ships," (May 12, 2011), <http://www.cbo.gov/publication/41454>.

22. Russ Roberts, "Gambling with Other people's money" *Mercatus Center at George Mason University*, April 28, 2010, accessed June 13, 2012, <http://mercatus.org/publication/gambling-other-peoples-money>.

incentive to evaluate applicants thoroughly or apply proper oversight. In other words, the less skin the lender has in the game, the less likely the lender will effectively vet the quality of the project. Also, the company that borrows the money has less skin in the game than it would if its loan weren't guaranteed. In addition, each time the government bails out a firm or has to shoulder the cost of a loan guarantee that got into financial trouble, it reinforces the signal to borrowers and bankers alike that it's OK to take excessive risks.

In a March 2012 report, the Government Accountability Office (GAO) found that the DOE loan guarantee program was riddled with program inefficiencies, putting the fairness of decisions about what firms receive loan guarantees into question.<sup>23</sup> When GAO requested data from the DOE on the status of the applications, the DOE did not have consolidated data readily available and had to assemble these data over several months from various sources. Inadequate documentation and out-of-date review processes reduce the assurance that the DOE has treated applicants consistently.

These findings do not prove the ability of the DOE to fully assess and mitigate project risks. Moreover, while in the absence of government intervention the private sector builds the infrastructure to assess risk, the federal government has neither the expertise nor the incentive to build such a safety net. This increases the likelihood that loan guarantees will be awarded based on factors other than the ability of the borrower to repay the loan, such as political connections and congressional interest in local pork.<sup>24</sup>

The moral hazard of loan guarantees increases when rules intended to prevent the program from being a pure giveaway to companies are removed. This is the case, for instance, when as part of the stimulus bill of 2009, the government lifted the subsidy fees for 1705 loans. This move increases the cost to taxpayers and attracts high-risk companies.

### 3. Mal-investments

Loan guarantee programs can also have an impact on the economy beyond their cost to taxpayers.

Mal-investment—the misallocation of capital and labor—may result from these loan guarantee programs. In theory, banks lend money to the projects with the highest probability of being repaid. These projects are often the ones likely to produce larger profits and, in turn, more economic growth. However, considering that there isn't an infinite amount of capital available at a given interest rate, loan guarantee programs could displace resources from non-politically motivated projects to politically motivated ones. Think about it this way: When the government reduces a lender's exposure to fund a project it wouldn't have funded otherwise, it reduces the amount of money available for projects that would have been viable without subsidies.

This government involvement can distort the market signals further. For instance, the data shows that private investors tend to congregate toward government guarantee projects, independently of the merits of the projects, taking capital away from unsubsidized projects that have a better probability of success without subsidy and a more viable business plan. As the Government Accountability Office noted, "Guarantees would make projects [the

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23. Government Accountability Office [GAO], DOE Loan Guarantees: Further actions are needed to improve tracking and review of applications, (March 2012), accessed June 13, 2012, <http://www.gao.gov/assets/590/589210.pdf>.

24. King and Montgomery, "Let's Reset," 22.

his reallocation of resource by private investors away from viable projects may even take place within the same industry—that is, one green energy project might trade off with another, more viable green energy project.

More importantly, once the government subsidizes a portion of the market, the object of the subsidy becomes a safe asset. Safety in the market, however, often means low return on investments, which is likely to turn venture capitalists away. As a result, capital investments will likely dry out and innovation rates will go down.<sup>24</sup>

In fact, the data show that in cases in which the federal government introduced few distortions, private investors were more than happy to take risks and invest their money even in projects that required high initial capital requirements. The Alaska pipeline project, for instance, was privately financed at the cost of \$35 billion, making it one of the most expensive energy projects undertaken by private enterprise.<sup>27</sup> The project was ultimately abandoned in 2011 because of weak customer demand and the development of shale gas resources outside Alaska.<sup>28</sup> However, this proves that the private sector invests money even when there is a chance that it could lose it. Private investment in U.S. clean energy totaled \$34 billion in 2010, up 51 percent from the previous year.<sup>29</sup>

Finally, when the government picks winners and losers in the form of a technology or a company, it often fails. First, the government does not have perfect or even better information or technology advantage over private agents. In addition, decision-makers are insulated from market signals and won't learn important and necessary lessons about the technology or what customers want. Second, the resources that the government offers are so addictive that companies may reorient themselves away from producing what customers want, toward pleasing the government officials.

#### 4. Crowding Out

To some (for example, those lucky enough to receive the loan guarantee), government money may seem to be free. But it isn't, of course. The government has to borrow the money on the open market too. This additional borrowing comes from Americans' savings, as does the money that Americans invest in the private sector's growth. There comes a point when there just aren't enough savings to satisfy both masters. In other words, when government runs a deficit to finance its preferred projects, it can affect private sector access to capital, and lead to a reduction in domestic investment.

Economists use the term "crowding out" to describe the contraction in economic activity associated with deficit-financed spending.<sup>30</sup>

In addition, the competition between public and private borrowing raises interest rates for all borrowers, including the government, making it more expensive for domestic investors to start or complete projects.

Over time, this could mean that American companies will build fewer factories, cut back on research and develop-

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25. Wang, "Federal Clean Energy"

26. Wang, "Federal Clean Energy," 15.

27. Peter Bradford, "Taxpayer Financing for Nuclear Power: Precedents and Consequences" (Nonproliferation Policy Education Center, 2008)

[http://www.npolicy.org/article\\_file/Taxpayer\\_Financing\\_for\\_Nuclear\\_Power-Precedents\\_and\\_Consequences.pdf](http://www.npolicy.org/article_file/Taxpayer_Financing_for_Nuclear_Power-Precedents_and_Consequences.pdf).

28. Ben Casselman, Alaska Pipeline Scrapped, May 18, 2011, Wall Street Journal, <http://online.wsj.com/article/SB10001424052748703509104576329541913338186.html>.

29. The Center for the Next Generation website, "Advanced Energy and Sustainability," accessed June 13, 2012, <http://www.cnrg.org/programs/advanced-energy-and-sustainability>.

30. Matthew Mitchell and Iakina Debnam, "In the End, We're all Crowded Out." (working paper, Mercatus Center at George Mason University, 2010), <http://mercatus.org/publication/long-run-we-re-all-crowded-out#c17>.

In a 2003 speech to the National Economists Club in Washington, D.C., then-Federal Reserve Governor Edward M. Gramlich argued that loan guarantee programs are unable to save failing industries or to create millions of jobs, because—he explained—the original lack of access to credit markets is caused by serious industrial problems, not vice versa. If an applicant's business plan cannot be made to show a profit under reasonable economic assumptions, private lenders are unlikely to issue a loan. And they would be right not to.

Then why is the federal government still guaranteeing loans? One reason is it serves three powerful constituencies: lawmakers, bankers, and the companies that receive the subsidized loans.

Politicians are able to use loan programs to reward interest groups while hiding the costs. Congress can approve billions of dollars in loan guarantees with little or no impact to the appropriations or deficit because they are almost entirely off-budget. Moreover, unlike the Solyndra case, most failures take years to occur, allowing politicians to collect the rewards of granting a loan to a special interest while skirting political blame years later when or if the project defaults. It's like buying a house on credit without having a trace of the transaction on your credit report. It is also easy to understand why companies and company executives benefit from these loans and may seek them out. However, this shouldn't obscure the fact that this preferential treatment comes at the expense of the taxpayer, and ultimately at the expense of our market and political system.

But another potential beneficiary of these loans is the financial institutions that issue them. With other loan programs such as the SBA, there is evidence that lenders may have an incentive to favor borrowers that qualify for a loan with a government guarantee over those that do not. When a small business defaults on its obligation to repay a loan, bankers do not bear most of the cost; taxpayers do. Meanwhile, lenders make large profits on SBA loans by pooling the guaranteed portions and selling investors trust certificates that represent claims to the cash flows. How profitable is this? Testifying before Congress in April 2006, David Bartram, the president of the SBA Division of U.S. Bancorp, the nation's sixth-largest financial services company, explained that "return on equity of SBA loans can exceed 70 percent."<sup>31</sup> A 70 percent return on equity (RoE) is remarkably high. Right now, the five-year average RoEs for the two biggest banks in America—Citigroup and Bank of America—are 16.2 percent and 14.5 percent, respectively.

More study is required to determine whether a similarly outsized return to financial institutions occurs with the DOE program, but the parallels between the DOE and SBA programs suggest this is a possibility.

## CONCLUSION:

The Department of Energy's loan guarantee programs have been the focus of much public attention since energy company Solyndra went bankrupt last year, leaving taxpayers with a \$538 million bill. Of equal concern to the significance of this waste, however, is the distortion and incentives experienced by both lenders and companies that participate in the government loan program, as well as the distortion of market signals. Further looking at where the money is going, the evidence seems to go solidly against the idea that they are achieving their goals. And the systematic economic harm done by rewarding companies that forgo value creation in favor of pursuing financial benefit through the political system creates long term consequences for our economy and our country.

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31. Veronique de Rugy, "Banking on the SBA," *Mercatus on Policy*, Mercatus Center at George Mason University, Arlington, VA, 2007, <http://mercatus.org/publication/mercatus-policy-banking-sba>.

## ABOUT THE MERCATUS CENTER

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The mission of Mercatus is to promote sound interdisciplinary research and application in the humane sciences that integrates theory and practice to produce solutions that advance in a sustainable way a free, prosperous, and civil society.

## ABOUT THE AUTHOR

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Veronique de Rugy is a senior research fellow at the Mercatus Center at George Mason University. Her primary research interests include the economy, federal budget, homeland security, taxation, tax competition, and financial privacy issues. Her popular weekly charts, published by the Mercatus Center, address economic issues ranging from lessons on how to achieve sustainable economic growth to the implications of government fiscal policies.



# ch News: 'Embarrassment' for Fisker After \$100K Car Breaks Down

## Embarrassment' for Fisker After \$100K Car Breaks Down

### TRANSCRIPT

Image Source: [Autoblog](#))

BY LAUREN ZIMA AND KARIM HOWARD  
ANCHOR LAUREN ZIMA

Fisker Automotive is facing what media are calling an "embarrassing" situation after a \$100,000 electric hybrid, the Karma, broke down during a Consumer Reports test. Consumer Reports says this is the first time it's ever had a car be undrivable before the check-in process was complete. Here's the video.

broken. Right here in the middle of our driveway. The car doesn't go in gear, doesn't move. The dealer has to come with a flatbed and take it away."

The car is a luxury electric hybrid. An accompanying Consumer Reports blog explains what happened in the video.

While doing speedometer calibration runs on our test track ... the dashboard flashed a message and sounded a 'bing' showing a major fault ... at that point, the transmission went into Neutral and wouldn't engage any gear through its electronic shifter except Park and Neutral."

Fisker previously had problems with the Karma's batteries and had to recall some vehicles. A writer for Forbes says ...

Fisker Automotive's troubles have gone from bad to worse. ... [The Consumer Reports incident is] the worst possible black eye..."

And on top of all this, Fisker is running out of funds. The Department of Energy gave the company a loan of more than \$500 million. Forbes reports Fisker has gotten only a third of that money because the DOE stopped the money flow, citing missed

1 COM



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To leave  
account

Little money has ment Fisker had to lay of some employees, and last month, Henrik Fisker stepped down as CEO. USA Today reports the company is trying to raise funds privately, and that now, celebrity star power is one of Fisker's stronger points.

"Fisker has snagged star points. Teen heart-throb Justin Bieber was surprised with a Karma for his 18th birthday on Ellen DeGeneres' daytime talk show last month. Aston Kutcher and Leonardo DiCaprio also have Fiskers."

And AutoNews says....

"Fisker did make it a point that there are nearly 500 Karmas already rolling around the nation and acted quickly to pick up the dead car and are currently inspecting the vehicle."

But, SlashGear points out the Karma has experienced "poor sales."

But, the company still says its more family-oriented Surf car will be ready for sales in 2013.

M Live reports:

"According to the National Highway Traffic Safety Administration, Fisker recalled 239 of four-door sedans – the majority still at dealerships – because a misaligned battery part could cause coolant to leak and result in a fire."

(GFX)

"Henrik Fisker was an auto designer for top makes...but never ran a car company. Fisker received authorization for more than \$500 million in federal loans, but was cut off when it failed to meet certain undisclosed performance standards."

<http://content.usatoday.com/communities/driveon/post/2012/02/henrik-fisker-steps-down-as-ceo-of-electric-car-maker/1>

Fisker Automotive, hoping to become the next Detroit, was started by a talented Danish designer, Henrik Fisker[,] who received a \$500,000 loan from the U.S. Department of Energy under a program intended to spur development of advanced-

# Ownership Questions Dog ENER1 (HEV) As It Competes For Loans And Grants

Posted by [Alison Kroulek](#) | # |  
08:40:27 am on March 23, 2009

Ener1 seems like it would be one of the companies most likely to benefit from the stimulus plan. After all, the company makes batteries for electric cars and it has a manufacturing plant in Indiana, so it benefits American workers. Plus, the market for these batteries should take off as America tries to reduce the amount of fossil fuels used to power our vehicles. Here's how [Barron's](#) describes Ener1's growth potential:

If Ener1 were to win 5% to 12% of a million-vehicle battery market, the company estimates, it could pull in \$2.1 billion in annual revenue with 15% margins (based on earnings before interest, taxes, depreciation and amortization). "If you want to apply a 15 times multiple to that cash flow, which in any normal market is a reasonable growth market, you're talking about a \$4.5 billion equity-market cap," says CEO Charles Gassenheimer.

To help expand its facilities here, Ener1 has applied for a \$480 million loan from the US Department of Energy and plans to apply for some of a \$2 billion dollar grant that is part of the Advanced Battery Manufacturing Initiative in the stimulus plan.

However, questions about the company's ownership are complicating the application process. Here's how the [Barron's](#) article I linked to above explains the problem:

As of late February, some 62% of Ener1's outstanding shares were owned by privately held Ener1 Group. In turn, 66% of Ener1 Group — a recent participant in a \$5.7 million loan to Think Global, which is trying to emerge from bankruptcy — is held by Bzinfon, a British Virgin Islands company whose "indirect beneficial owner" is Boris Zingarevich, a Russian businessman. Zingarevich has close ties to Russian President Dmitry Medvedev and Prime Minister Vladimir Putin.

This is a concern for the Department of Energy. There are fears that if Ener1 develops a successful battery, all of the research and development funded with DOE loans and grants could be transferred back to Russia, especially since there are also military applications for the technology.

Speaking to [Barron's](#), Ener1 CEO responded to these concerns by denying that the Russian investors have any influence on the decisions the company makes. Here's how he explains the situation:

Gassenheimer says that Zingarevich joined the company "when the two founders ran into financial difficulties... If it were not for Boris, this company would not be alive today. He's been a tremendous partner, a patient investor. It's nice to have someone with this level of patience that is fully committed to the story." He adds that Zingarevich "as a matter of SEC rules...is deemed to 'beneficially own' a majority of our shares" but has

no day-to-day role in the company. And Gassenheimer says that, like many U.S. companies, its investors include Americans and foreigners.

[Get The Top 6 Wind Stocks Set To Soar Here!](#)

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[Barron's: 'Barely out of beta testing, Wikinvest's Portfolio tracker is already the most advanced portfolio manager online.'](#)

[Ener1 \(HEV\) Has An 'Awesome Future' With Hybrid Cars](#) (Contrarian Profits, 12/17/08)

[Lithium-ion Batteries and Nine Years of Price Stagnation](#) (Alt Energy Stocks, 4/5/09)

[Why Advanced Lead-acid Will be Competitive in the HEV Markets](#) (Alt Energy Stocks, 5/29/09)

[Obama grant draws fresh eyes to Ener1 Inc. ahead of earnings](#) (Blogging Stocks, 8/6/09)

Read more on [Ener1](#), [Ener1 Inc](#) at [Wikinvest](#)

Tags: [DOE](#), [ener1](#), [hev](#)

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#### Comments

#### Ford Karmer

Mar 24

Write your congressman! The Detroit Big 3 (Who are fronts for the oil companies), the banks (Who conduit the oil company money) and AIG (who keeps the oil companies protected) were handed money in a sack within a few days with no questions asked, no application and no review process but the alternative energy people, ie: wind, solar and electric cars must pay massive fees, file thousands of pages of paper and wait years to see if they MIGHT get some money. It seems as if there is an intentional program going on to delay alternative energy. Already, multiple solar companies that were waiting for that money have been forced to go out of business by the delay and most of the electric car companies are going to die soon too.

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#### [Karl's Mortgage Calculator](#)

Jul 03

AIG was handed a bag of money in a few days no questions asked, no application and review process. Really well written. You should post more about this.

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#### Leave a comment

Name (required)

E-mail (required)

utility has guarantees from the Illinois administration or an alternative energy project to bridge — which received heavy endorsements from Energy Secretary Steven Chu and Senate Majority Leader Harry Reid — have financial problems, and the company's utilities have questioned whether "the flag is burning" and manufacturing with a 100% utility backup loan guarantee that used taxpayer-backed Synthetic Power (SP) has increased \$60 million in cost before the first natural gas, but administrative and loan guarantees enough cost has to prevent operation after regulatory costs, an internal audit said.

Guarantees to be dependent on its available cash and its ability to continue to raise funds to support corporate operations and the development of other projects, "BEP utilities such a financial statement for the period ending March 31,

which said significant doubt upon the company's ability to continue its 2 year contract," the statement said.

By the EPA utility officials did not want to begin the loan guarantee program to help finance clean-energy projects, predicted in 2011 that BEP would "not be able to work" and declared that Nevada is not the "best location of production energy."

On 2011 announcement of the loan guarantees, helping the federal government's support of the company demonstrated its commitment to production power to achieve the nation's clean-energy goals.

Business of the House Energy and Environment Select Committee in legislative efforts, studies oversight and government spending, is concerned about BEP's finances and the timing of the loan guarantees — its financial obligations, and the Department of Energy's activities is noted in a July 2011 letter, "On Justice Ltd. After receiving a taxpayer-backed \$63.5 million loan guarantee, the company is still struggling

and to pay up on already-borrowing loans."

Competitive solicitations of its House Oversight and Environment Select Committee, July 2011. On that the BEP loan guarantee raised questions about why the Energy Dept. may have been increasing regulatory budget resources in a company still well-established financial problems.

and its conditional approval of the guarantee, Mr. Lee said BEP would have indicated on a loan from 1998 loan forgiveness, then its primary lender, "but BEP not attempted to to cover the funding company with taxpayer money" —

comes any new construction and "did not help to create a single job."

in 2011, New Hampshire Republican, stated why BEP needed a government loan in 2011 just a year after it had received financing to get its plant up and running, he said it didn't want that a loan for a bailout.

statement of Energy to use taxpayer dollars has to provide to an entity that already has an existing facility," he said.

did not more than 20 loan guarantees to companies with an average credit rating of BB, or "junk status," manufacturing were vulnerable to default if economic or business conditions changed. BEP was rated BB+, which is considered speculative or junk and a step below investment grade.

to taxpayer money was "not at all cost."

He attributed the company by saying its utilities were required to do all this the firm had because its stock is traded publicly. But, he said, BEP a making its payments on its liability-backed loan.

reported," he said, adding that its liability guarantee had costs to BEP subsidiary losses at BEP Blue Mountain 1, for which he also served as president and CEO.

\$70 million, or 60 percent of the \$121 million loan, borrowed in 2010 by John Edwards Financial Services. The loan is currently owned from Blue Mountain and jobs paid from revenues generated by a 70-year power purchase agreement with Energy Community Service Power Co.,

loan guarantees," said Mr. Kucinich, adding that if helped those get the loan had 0.17 percent compared with the 10 percent interest rate the company was paying on its existing debt with similar loans.

interest on a separate \$40-million loan from 1998 investment firm, which is not backed by the federal government under refinancing to its liability-backed loan — mostly with financial and the Energy Department have this year in Blue Mountain's loans and savings in a bailout.

would avoid financial loss, who sometimes BEP, which will not until the liability guarantee has been to credit because "bonds of the state." He is said to do not see the substantive basis "putting out fires."

much energy on the company had helped and could 122 million to help increase its capacity, which could be difficult to raise.

one submitted the loan guarantees by saying BEP was continuing to make its loan payments "on time and in full."

and BEP has received bipartisan support because "programs and incentives for clean energy have helped create jobs and made Nevada a growing leader in performance energy production."

But, for the House Oversight Committee said to not be, which was paid \$30 million in total BEP's Blue Mountain plant, has "wrong loan" to its creditors. It said loan from that utility, Mr. Kucinich and Paul Thurman, said in "Deal

on Sunday, July 21 in Washington. After problems, along with BEP, is expected to discuss the firm's debt, is reorganization plan and steps that have been taken to reduce operating costs, including selling its operations and use the credits being in the state to be maintained the jobs of Nevada and

but the company was awarded in \$100 million federal loan guarantees, for we years later it that for bankruptcy. It reached the force of a criminal investigation by the Justice Department.

J.C. Clark lives in regional journalism.

ampaign is trying to distance themselves from Fisker Automotive by disputing just where the money for the carmaker came from. The truth is that after spending a half-billion dollars to help Fisker build electric cars in Michigan, the only place this company is producing cars is in Finland. Furthermore, not only did Fisker receive stimulus funds but the president spent billions through the stimulus supporting the electric vehicle industry. The Obama administration has repeatedly touted the Fisker loan in connection with the Stimulus Act. Both President Obama and Vice President Biden have praised Fisker's loan program in connection with the stimulus, going as far as crediting the program for creating demand for their vehicles and helping to open their now-shuttered plant in Delaware. Beyond that, reports on the stimulus the Obama administration touted the Fisker loan and the stimulus together.

In 2010, President Obama Praised Fisker's Loan Program And The Stimulus Grants And Tax Credits That Incentivized Their Vehicles. "But thanks to loans through the Department of Energy, which helped provide Tesla Motor's plant in Fremont, California, with the stimulus, that shuttered plant is soon going to reopen. ... And it was made possible by loans from the Department of Energy, as well as tax credits and grants to increase demand for these vehicles." (Remarks, 5/36/10)

President Biden Thanked The Stimulus For Helping Reopen The Former GM Plant Fisker Used Its Loan To Purchase. "I want to congratulate a beginning. Thanks to the Department of Energy loans and Recovery Act grants for vehicle electric vehicles, the plant was reopened in order to start producing the next generation of hybrid vehicles in America that get 100 miles to the gallon." (Remarks, 12/16/09)

The Obama Stimulus Program That Fisker Received Its Loan Through Was Funded With Stimulus Funds. The Advanced Technology Vehicle Loan Program received \$10 million through the stimulus to cover administrative costs.

National Research Service: "Of the total appropriated, ARRA specifies that \$10 million be used for administrative support the Advanced Technology Vehicles Manufacturing Loan program. Qualifying projects must be capped at \$10 million. The program will support no later than September 30, 2011." (pdf)

The Obama Stimulus Program Paid A Law Firm That Has Donated \$310,000 To The Obama Campaign To Conduct The Due Diligence Review For Fisker's Loan. The law firm Debevoise & Plimpton received \$1.9 million to conduct a review of the Fisker loan, the same amount that should have pointed out that Fisker was a bad investment. Since 2007, employees of Debevoise & Plimpton have been paid over \$326,000 to the Obama campaign and at least another \$250,000 to democratic campaigns and committees. The Obama Stimulus Program Awarded A Million Recovery Act Award To Debevoise & Plimpton (Recovery.gov)

The Obama Stimulus Program Is Dependent On Billions Of Dollars From The Stimulus Devoted To Propping Up Its Industry Including Money For Fisker's Loan. Like A123 Systems, Fisker's Battery Maker. Fisker's battery, which the ATMV loan supported the design and production of, is being manufactured by A123 Systems. A123 received over \$279 million from the Obama's stimulus in 2009. The Obama Stimulus Program Paid Fisker To Buy Batteries From The Plant That Where Fisker's Batteries are Produced. Beyond that the stimulus included billions in money for Fisker's electric vehicles, including aid to supplier, money for charging stations and tax credits for electric vehicles.

The Obama Stimulus Program Announced The Stimulus Loan To A123: "Today's plant opening was made possible by a \$249 million loan from the stimulus. The Obama Stimulus Program Awarded A Loan To Fisker To Buy Batteries From The Plant That Where Fisker's Batteries are Produced. Beyond that the stimulus included billions in money for Fisker to supply advanced batteries for their electric vehicles." (Remarks, 9/13/10)

The Obama Stimulus Program Spent For The Electric Vehicle Industry (pdf):  
Obama Stimulus Program Spending For Transportation Electrification Grants  
Obama Stimulus Program Spending For The Purchase Of Alternatively Fueled Vehicles  
Obama Stimulus Program Spending For Advanced Battery Manufacturers

ding For The Electric Vehicle Industry (pdf):  
Transportation Electrification Grants  
The Purchase Of Alternatively Fueled Vehicles  
Advanced Battery Manufacturers  
Refueling Infrastructure Tax Credit  
Tax Credit  
Manufacturing Facility Investment Tax Credit

Will, The Obama Administration And Fisker Have Broken Numerous Promises  
Answers, Not Excuses. The Obama administration gave Fisker the loans  
ing that it would be built overseas but that the company would later be  
ter, the only factory that Fisker is producing cars at is in Finland. (C  
t of Energy tried to assuage these concerns by promising that 65 percent  
United States. What we now know is that we can only guarantee that at  
s come from the U.S. Finally, Fisker has failed to reach the performan  
loan the American people gave to them.

ogy: "Of the total loan, \$359 million is going to revive manufacturing a  
PLant will support Fisker Automotive's Project NINA, the development a  
id sedan." (Department Of Energy, 10/27/09)  
ering The Boxwood Plant Fisker Announced They May Never Build Their Car  
luxury carmaker Fisker Automotive continues to signal it could ditch  
rid electric vehicle in the United States, despite the nearly \$200 mil  
money it has already received." (ABC News, 5/30/12)

ergy: "While the final assembly of the Karma will be done overseas, mor  
required for Karma will come from U.S. suppliers." (Department Of Ener  
Karma Is Listed Under The American Automobile Labeling Act As Only Get  
er The U.S. Or Canada. The car is assembled in Finland and the transmi  
ce, the Nissan Maxima, Mazda6, Mercedes R Class and a dozen Toyota v  
the Fisker Karma. (NHSTA)

ergy: Fisker's loan required the Karma achieve "vehicle sales of 11,000  
age price of not less than \$87,900" (pdf)  
ber 2011, Fisker Had Only Sold 1,000 Karmas. "The company, which began  
four-door electric sedan in December 2011, also revealed that it has  
rs in the US and Europe." (Fisker Automotive, 5/29/12)

## Case, Is Reportedly Removed

Submitted by [Paul Chesnut](#) ([view user profile](#)) on Tue, 05/18/2012 - 10:25

The top private  
equity raiser for

troubled electric automaker [Fisker  
Automotive](#)

<http://nlpc.org/category/keywords/fisker>), which  
has been the subject of investigations by  
the Financial Industry Regulatory  
Authority (FINRA) and [Securities and  
Exchange Commission](#)

<http://nlpc.org/category/keywords/securities-and-exchange-commission>), has reportedly  
removed its co-founder and CEO.



[Crain's Chicago Business](#), citing "a company insider," [reported Friday](#)  
<http://www.chicagobusiness.com/article/20120615/NEWS01/12060820/advanced-equities-boots-cco-after-sec-investigation?CSEId=a1>) that [Advanced Equities Inc.](#),  
<http://nlpc.org/category/keywords/advanced-equities>) has reached an agreement  
with Dwight Badger for him to leave the investment firm. The separation  
follows a [demand](#) (<http://www.reuters.com/article/2012/05/24/fina-advancedequities-ADJL1E8G1A120120524>) by a FINRA arbitration panel for Advanced Equities  
to pay \$4.5 million to one of its former brokers, John Galinsky, over breach  
of contract claims. Galinsky brought his complaint against the firm, Badger,  
and his co-founding partner, Keith Daubenspeck.

"The panel finds that Respondents exhibited a reckless disregard for the  
warrant rights of the broker and breached their fiduciary duties to the  
broker," the [FINRA dispute resolution](#)  
<http://finrarwardsonline.finra.org/viewdocument.aspx?DocNR=58767>) said.

Advanced Equities raised the financing for Fisker, which has boasted that it  
has received more than \$1 billion in private investment. The Chicago-based  
venture capital investment bank says it specializes in late-stage equity  
financing, raising funds to "bridge the gap between venture money and  
traditional corporate finance." One of the venture firms that Advanced  
Equities builds "bridges" from is the Silicon Valley venture capital firm  
[Kleiner, Perkins, Caufield and Byers](#) (<http://nlpc.org/category/keywords/kleiner-perkins-caufield-and-byers>), which has strong ties to the [Obama administration](#)  
<http://nlpc.org/category/people/president-obama>), boasts former Vice President [Al  
Gore](#) (<http://nlpc.org/category/people/al-gore>) as a senior partner, and highlights  
Green companies as one sector where it focuses technology investments.



The problem with this picture is that in vaulting (Advanced Equities) to its high perch in the VC world, Daubenspeck and Badger have left a wake of aggrieved customers, furious former employees, lawsuits and more than their share of busted startups," Forbes reported. "At least 18 former clients have filed arbitration complaints accusing the firm of wrongdoing. Separately, six brokers have alleged that AE stiffed them for millions of dollars."

Besides the problems with Galinsky, Advanced Equities, Badger and Daubenspeck were served (<http://nlpc.org/stories/2012/01/12/fisker-5e2580c99a-arbitration-fundraisers-face-sec-investigation>) in January with Wells Notices (<http://www.seclaw.com/does/wellsnotice.htm>) by enforcement staff from the Chicago office of the Securities and Exchange Commission (<http://nlpc.org/category/keywords/securities-and-exchange-commission>). The notices indicate an investigation is underway, and the subjects are given the opportunity to submit a response to the allegations before a hearing begins.

And in February an investor sued Fisker and Advanced Equities (<http://www.enrregister.com/articles/fisker-157542-0c-print-stock-.html>) for their alleged failure to perform fiduciary duties and for fraud. Daniel Wray alleged that after he bought \$210,000 of preferred stock between 2009 and 2011, in January Fisker and Advanced Equities demanded more than \$83,000 "due to Fisker's urgent need for equity capital," or else he would lose privileges that came with his purchase of earlier stock.

The latest development with Fisker's fundraising calls into greater question the scrutiny the Department of Energy paid (<http://nlpc.org/stories/2012/02/28/obama-supporting-law-firm-advised-failed-fisker-ksm>) law group Debevoise and Plimpton (<http://nlpc.org/category/keywords/debevoise-and-plimpton>) \$1.8 million in Recovery Act

...), Debevoise staff members have donated \$746,535 to Democratic candidates and political committees, including \$284,420 to the Obama campaign. Republican candidates received far less. Also, Debevoise's in-house manager, Suzanne Ello, is a former Democratic National Committee fundraiser, and top lawyer David Rivkin reportedly served as an advisor to Obama's National Finance Committee, even hosting a fund-raising event for presidential candidate Obama in his home in 2007.

While employees of Kleiner Perkins have donated \$2.6 million to Democratic candidates and political action committees, favoring Democrats over Republicans by a very wide margin. Also, throughout 2009 and 2010 Kleiner Perkins spent \$50,000 per quarter lobbying Congress on legislation heavily-laden with renewable energy government incentives. The American Recovery Act, the American Clean Energy and Security Act, the American Jobs and American Power Act, and various climate and energy bills. Kleiner Perkins also lobbied <http://www.futurecapitalism.com/2009/09/fisker-lobbying> the White House and the Departments of Energy and Defense. Kleiner Perkins spent \$190,000 in 2009 – to seek funds through (The) Advanced Technology Vehicles Manufacturing Loan Program.

It appeared to be plenty for Debevoise and DOE to gloss over the shady characters who raised money for Kleiner Perkins's projects, including Fisker and Bloom Energy. With hundreds of millions of taxpayer dollars and a "green energy" agenda at stake, why bother with such details?

*Professor is an associate fellow for the National Legal and Policy*



**Department of Energy**  
Washington, DC 20585

May 18, 2012

The Honorable Charles E. Grassley  
Ranking Member  
Committee on the Judiciary  
United States Senate  
Washington, DC 20510

Dear Senator Grassley:

Thank you for your April 20, 2012, letter to Secretary Chu regarding the Advanced Technology Vehicles Manufacturing (ATVM) program and the program's loan to Fisker Automotive Corporation.

**The ATVM Program and Fisker Automotive**

Created with strong bipartisan support and signed into law by President Bush in 2007, the ATVM program is helping to accelerate the development and deployment of fuel-efficient advanced technology vehicles and components. To achieve these goals, the ATVM program provides financing to automobile manufacturers and component suppliers.

On April 22, 2010, the Department of Energy (DOE) awarded a \$529 million loan to Fisker Automotive for the development and production of two lines of plug-in hybrid electric vehicles: the Karma and the Atlantic. To date, \$192 million of the loan has been disbursed to Fisker, to fund eligible Karma expenses and to partially fund the purchase of a former General Motors (GM) plant in Delaware.

With respect to the Karma, loan proceeds must be used to support engineering in the United States to develop tools, equipment and manufacturing processes for the Karma. That engineering work is performed in Fisker's U.S. facilities, including its headquarters in Irvine California, where it has 700 employees. The Karma's unique technology was developed by American engineers and designers to reduce dependence on foreign oil and help Americans save money through higher fuel economy.

The remainder of the loan is to be used for production of the Atlantic. When the loan was signed, Fisker planned to re-equip a shuttered GM plant in Delaware for this production, expecting to employ more than 2,500 workers. DOE is working with the company as it revises its business plan. DOE will not provide funding under the loan for the Atlantic until the revised plan meets program criteria and all other applicable requirements.

**Due Diligence and Portfolio Management**

Like the due diligence performed on all ATVM loan applications, the Department's due diligence for the Fisker loan was extensive — with rigorous financial, technical, legal and market analysis conducted



over many months by DOE's internal professional staff, including qualified engineers and financial experts, and outside experts. The Loan Program's underwriting and due diligence standards are as rigorous as, or more rigorous than, those in the private sector. As part of that diligence, DOE assessed the projected fuel economy improvements of the Fisker vehicles over vehicles of the same class. In that assessment, DOE relied on the EPA vehicle classifications, which are based on the interior dimensions of the car.

Following issuance of a loan, DOE monitors the borrower's performance against its business plan and projections prepared by the borrower and approved by DOE. In his report on the Loan Program, former Assistant Secretary of the Treasury for Financial Stability Herbert Allison noted that the Department is not a "passive bystander" when monitoring a loan; rather, DOE has the ability to reduce or mitigate risk in the portfolio over time and has "robust tools" for protecting itself from elective risk and to ensure adequate protection of taxpayer investments. The GAO's recommendation to use DOE-created performance metrics would greatly expand the scope of the program.

### **Selection Criteria and Applicant Requirements**

In establishing the ATVM program, Congress directed DOE to award loans that support the development and manufacture of advanced technology vehicles and components for advanced technology vehicles that meet statutorily-mandated efficiency and environmental standards. To date, five companies, including Fisker, have met those criteria and been awarded loans.<sup>1</sup>

The automobile industry is global; like Fisker, nearly all major automobile companies have overseas operations. Two of the largest loans made by the ATVM program are to Ford Motor Company, which has operations in Europe, South America and Asia; and Nissan, which has operations throughout the world. The proceeds of these and other ATVM loans are required to finance operations in the United States. In addition, while the Fisker Karma is assembled in Finland, more than 45 percent of the Fisker components are manufactured by approximately 40 suppliers located in the United States. If companies with overseas operations were disqualified from participating in the program, the Department would have few opportunities to support the global competitiveness of U.S. industry as it develops energy efficient vehicles.

### **Credit Subsidy Costs**

When funding the program, Congress appropriated nearly \$7.5 billion to cover estimated credit subsidy costs for ATVM loans, thereby acknowledging the inherent risks of funding new and innovative technologies in an industry that was facing significant market and economic challenges. By appropriating this credit subsidy, Congress also ensured that risks in the ATVM loan portfolio would be properly accounted for in the budget. Nonetheless, DOE underwrites and structures its loans to protect the interests of taxpayers and maximize prospects for full repayment of the loan — not to achieve a target default rate. Indeed, based on the most recent re-estimates approved by OMB, the estimated credit subsidy cost of the ATVM portfolio as a whole is well below 30 percent.

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<sup>1</sup> General eligibility requirements, application requirements, and the application process are governed by the Energy Independence and Security Act of 2007, Pub.L. No. 110-140, and the ATVM program's Interim Final Rule. 10 C.F.R. 611 (2008).

## Job Creation

With respect to the projections of job creation, the applicant estimates these numbers during the application process. Such estimates do not include indirect jobs or the economic activity created throughout the supply chain. DOE does project the impact on CO2 emissions, based on EPA data for annual emissions per car on the road and the applicant's technical projections. In each case, as Fisker is still in the process of revising its business plan, we are unable to provide updated numbers.

Two years ago, the American automobile industry was on the brink of collapse during a historic economic crisis. Now, in part because of help from the ATVM program, the America's automotive industry is reinventing itself — expanding production, growing profits, creating jobs, and making more fuel efficient automobiles. While American manufacturing continues to face substantial challenges, its future prospects are stronger than they have been in over a decade. The Department looks forward to continue supporting this success.

If we can be of further assistance, please do not hesitate to contact me or Mr. Brad Crowell, in the Office of Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,



David G. Frantz  
Acting Executive Director  
Loan Programs Office

*Acting for*

Cc: The Honorable John Thune  
United States Senator

## DEPARTMENT OF ENERGY

**Budget Trends and Oversight**

GAO-12-659T, Apr 18, 2012

**Franklin W. Rusco**

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**What GAO Found**

Recent GAO work found that funding increases have expanded or created Department of Energy (DOE) programs with varying results. For example:

- **Advanced Research Projects Agency-Energy (ARPA-E)** awards grants to projects that help develop high-risk energy technologies. Since fiscal year 2009 the program has received \$855 million to fund energy projects that industry by itself was not likely to undertake. GAO found that ARPA-E uses several selection criteria in awarding funds, but its requirements for information on private funding could be improved.
- **The Loan Guarantee Program** provides loan guarantees for innovative energy technologies. DOE has made about \$15 billion in loan guarantees and is authorized to make up to \$34 billion in additional loan guarantees. GAO found that the program does not have sufficient data to facilitate oversight, and its actual process for reviewing applications has differed from the established process.
- **The Weatherization Assistance Program** helps low-income families reduce their energy bills by making long-term energy efficiency improvements to their homes. The American Recovery and Reinvestment Act of 2009 (Recovery Act) provided \$5 billion to enhance the program's ability to make energy efficiency improvements to low-income family homes. GAO made recommendations to DOE to clarify the program's production targets (e.g., the number of homes weatherized) and guidance.
- **The Advanced Technology Vehicles Manufacturing Loan Program** provides loans for projects to produce more fuel-efficient passenger vehicles and their components. DOE can make up to \$25 billion in loans for fuel-efficient vehicles; at the time of GAO's review, DOE could not be assured that projects would be delivered as agreed.

GAO also reported that improvements at DOE may provide opportunities for increasing savings and enhancing revenue. For example:

- **Contractor support costs.** DOE's management of contractors, who operate DOE sites and represent 90 percent of DOE's budget, has historically been decentralized, or fragmented. This adds to inefficiencies in support functions. Since 2007, DOE and contractors at some DOE sites have had efforts to streamline these functions. GAO recommended that DOE assess whether further opportunities could be taken to streamline such functions.
- **Diesel emissions.** DOE, the Department of Transportation, and the Environmental Protection Agency receive federal funding to reduce diesel emissions from mobile sources—14 programs in all, which also overlap on certain activities. DOE received \$572 million for its 3 programs. GAO recommended that the three agencies establish a strategy for collaboration to reduce diesel emissions from mobile sources.

- Excess uranium inventories. Uranium is used in fuel for nuclear power plants. GAO reported DOE's excess uranium inventories could be worth billions of dollars in additional revenue as fuel for commercial nuclear power plants.

## Why GAO Did This Study

Understanding the impact of budget-related considerations has become particularly important as Congress and the administration seek to decrease the cost of government while improving its performance. In recent years, Congress has authorized large increases in funding for DOE. For example, the Recovery Act, which Congress enacted to, among other things, preserve and create jobs and promote economic recovery, provided DOE with more than \$41.7 billion in areas such as energy efficiency, renewable energy, and environmental cleanup.

This testimony focuses on several key programs and related budget issues at DOE, including (1) the management of selected programs expanded or created by recent funding increases and (2) potential opportunities to achieve savings or enhance revenue. This testimony is based on prior GAO reports from February 2011 to March 2012, and updated with readily available data from DOE.

## What GAO Recommends

GAO is making no new recommendations in this testimony but continues to believe that implementing the recent recommendations made in the reports discussed should improve DOE program management, achieve savings, and enhance revenue. DOE has generally agreed with most of our recommendations, but disagreed on certain points related to the timing of implementing our recommendations.

For more information, contact Frank Rusco at (202) 512-3841 or [ruscof@gao.gov](mailto:ruscof@gao.gov).

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**Statement of David G. Frantz**  
**Acting Executive Director of the Loan Programs Office**  
**U.S. Department of Energy**  
**Before the**  
**Subcommittee on Energy and Power**  
**And**  
**Subcommittee on Oversight and Investigations**  
**Committee on Energy and Commerce**  
**U. S. House of Representatives**

**July 12, 2012**

**Introduction**

Chairmen Whitfield and Stearns, Ranking Members Rush and DeGette, and Members of the Subcommittees, thank you for the opportunity to testify before you today. My name is David Frantz, and I am the Acting Executive Director of the Department of Energy's (DOE) Loan Programs Office (LPO). I was the first Federal employee hired for the Loan Guarantee Program, and served as its first Director when I joined, moving from the Overseas Private Investment Corporation (OPIC) on August 5, 2007.

The LPO administers two federal loan guarantee programs – Section 1703 and 1705 – for energy technology projects authorized by Title XVII of the Energy Policy Act (EPAct) as amended. It also administers direct loans for the Advanced Technology Vehicles Manufacturing (ATVM) program as authorized under Section 136 of the Energy Independence and Security Act of 2007 (EISA).

DOE's loan programs are a critical part of our nation's commitment to clean energy. I welcome the opportunity to discuss the Loan Programs Office with you and to comment on the legislation being considered by the Committee today.

**Background on the Loan Programs**

The Section 1703 program was established to support the U.S. deployment of new, innovative technology projects that avoid, reduce, or sequester greenhouse gas emissions. Currently, the program has \$18.5 billion in loan guarantee authority for nuclear power projects, \$1.5 billion in authority for energy efficiency and renewable energy projects, \$8 billion in authority for advanced fossil projects, \$4 billion of authority allocated for front-end nuclear projects, and \$2 billion of authority that is not allocated to a specific technology sector. Under this authority, the applicant is required to pay the credit subsidy cost of the loan guarantee for their project. In addition, the FY 2011 Continuing Resolution provided approximately \$170 million to pay the credit subsidy cost of loan guarantees for renewable energy and energy efficiency projects.

The Section 1705 program was created as part of the American Recovery and Reinvestment Act of 2009 (ARRA) to jump-start the country's clean energy sector by supporting various renewable energy projects that had difficulty securing financing in a tight credit market. Section 1705 pursued additional objectives and exhibited slightly different programmatic features than Section 1703. Most notably, applicants under Section 1705 were not required to pay the credit subsidy costs associated with the loan guarantees they received. Those costs were paid through funds appropriated by Congress.



# loan to Fisker

BY DAVID SHEPARDSON DETROIT NEWS WASHINGTON BUREAU COMMENTS

*Washington* — The House Oversight and Government Reform Committee wants to know if the Energy Department will agree to help struggling startup automaker Fisker Automotive Inc. by allowing other investors to recoup funds if the company goes bankrupt.

The California startup won \$529 million in low-cost Energy Department loans and has drawn \$193 million, mostly for use in developing the Fisker Karma that was designed and engineered in the United States but assembled in Finland.

In a letter to Energy Secretary Steven Chu, House Oversight chairman Darrell Issa, R-Calif., said that the government "allowed Fisker to find additional private investors after failing to adhere to financial covenants. However the details of how these private investments affected underlying terms to the original DOE loan are unclear."

The Energy Department froze the rest of the loan last year amid talks about the company's business plan. Last week, it told investors it was pushing back production of its Atlantic by at least two years. Fisker spokesman Roger Ormisher said the company's policy is to "under promise" and "over deliver."

The committee wants all emails between Energy Department, Treasury and White House relating to the tax implications of the Fisker loans.

"From Day 1, decisions made on loan applications and projects supported by loan guarantees were made on the merits after careful review by experts in the loan program. Our consistent goal has been to manage these critical investments in innovative clean energy technologies in a way that manages the risk to the taxpayers," Energy spokesman Damien LaVera said

Officials emphasized there has been no restructuring of Fisker's loan with the Department. All of the borrowers in their portfolio have the option to raise private equity. Fisker's efforts in this regard have no impact on the government's standing as creditors

In August, the company replaced its CEO, Tom LaSorda, with a former head of General Motors Co.'s plug-in hybrid Volt program, Tony Posawatz — the latest in a series of management changes for the company that has

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# Obama isn't learning

by **Conn Carroll** Senior Editorial Writer

posted 2 hours ago at 8:23am with 7 Comments

**Last Wednesday, after Mitt Romney's campaign released a new ad attacking President Obama for his \$535 million 'investment' in the now-bankrupt solar manufacturing firm Solyndra, MSNBC's Chuck Todd pressed Obama spokeswoman Stephanie Cutter to explain what, if anything, Obama had learned from the scandal.**

"What is the lesson learned from Solyndra? No lesson learned? How is it that all this money ends up getting lost in this company? What was the misread here? Is the industry just not viable yet?" Todd asked.

"No," Cutter responded, "There are plenty of other examples that were successful." She even went so far as to say, "As a result of the clean energy investments that we have made, almost a quarter-million jobs have been created in just the clean energy sector."

I searched in vain for a possible source for that number, which appears to have been created out of thin air. A quick visit to the Department of Energy's Loan Program Office page, the program that funded Solyndra's loan, shows Obama has spent \$34.7 billion creating just "over 60,000 jobs."

That 60,000 number is already far, far short of the quarter-million that Cutter claimed. But if you dig into it, even that number is inflated. The DOE claims a \$5.9 billion loan it made to the Ford through the Advanced Technology Vehicles Manufacturing Loan Program created 33,000 jobs. Considering that Ford's top-selling model is the F-150 pickup truck (a red-blooded gas guzzler), it is hard to believe that so many Ford jobs are dedicated to producing low-emission cars. It's even harder to believe that 33,000 jobs have been created at a company whose overall number of U.S. employees has remained stable at about 75,000 since before the loan was made.

Obama's DOE also claims it created 2,000 jobs by lending \$529 million to Fisker Automotive. But those jobs all depended on Fisker opening a factory in Delaware. And as of April 18th of this year, that factory was completely empty. Worse, the state is currently paying the company's utility bills at the plant.

The failures of Obama's clean energy portfolio do not end there, either. The second company granted a loan by Obama, Beacon Power, is also bankrupt. As are Ener1, Evergreen Solar, Raser Technologies, Solar Trust of America, and Spectra Watt.

Then there is Abound Solar (\$400 million in loan guarantees), which the DOE claims created 1,200 temporary construction jobs and 400 permanent jobs. Problem is, Abound never built the new manufacturing facility that was supposed to employ those 1,200 construction workers. And the company had to fire 280 people this February. Abound only employs about 120 people today.

Todd was onto something in his first question to Cutter. Instead of investing in a broad range of technologies, Obama invested 80 percent of the DOE loan program's money - all taxpayer money - in solar companies. This despite the fact Fitch Ratings told the DOE, before it invested in Solyndra, that the solar industry was "under extreme competitive pressures."

Unfortunately, Obama is not learning from any of these failures. When asked by ABC News' George Stephanopoulos if he had any regrets about Solyndra, Obama said flatly, "No."

In a free market, an investor's losses serve as a signal that he needs to change his investment strategy before he goes bankrupt. But Obama isn't investing with his money. He is investing with ours.

And if his investment failures are not sending him the signal that his investment strategy needs to change, then we as taxpayers must send him that message this November - before we all go bankrupt.

Our common stock is listed on the New York Stock Exchange under the symbol "F". The following table sets forth, for the quarters shown, the range of high and low composite prices of our common stock on the New York Stock Exchange and the cash dividends declared on the common stock. The last reported sales price of our common stock on the New York Stock Exchange on October 30, 2009 was \$7.00 per share.

	High*	Low*	Dividends Declared
2009			
Fourth quarter (through October 30, 2009)	\$7.98	\$6.61	\$ —
Third quarter	8.86	5.24	—
Second quarter	6.54	2.40	—
First quarter	2.99	1.50	—
2008			
Fourth quarter	\$5.47	\$1.01	\$ —
Third quarter	6.33	4.17	—
Second quarter	8.79	4.46	—
First quarter	6.94	4.95	—
2007			
Fourth quarter	\$9.24	\$6.65	\$ —
Third quarter	9.64	7.49	—
Second quarter	9.70	7.67	—
First quarter	8.97	7.43	—

\* New York Stock Exchange composite intraday prices as provided by the [www.NYSEnet.com](http://www.NYSEnet.com) price history data base

Our Board of Directors has not declared dividends on our common stock or Class B Stock since the third quarter of 2006. Furthermore, our senior secured credit facility and our Department of Energy ATVM loan facility contain a covenant restricting us from paying dividends (other than dividends payable solely in stock) on our common stock and Class B Stock. Additionally, as announced on March 4, 2008, we deferred future interest payments on our 6.50% Junior Subordinated Convertible Debentures due January 15, 2032 beginning with the April 15, 2009 quarterly interest payment and the terms of the debentures prohibit us from paying dividends with respect to our common stock or Class B Stock during such deferral period. As a result, it is unlikely that we will pay any dividends on our common stock in the foreseeable future. In any event, the declaration and payment of future dividends by our Board of Directors will be dependent upon our earnings and financial condition, economic and market conditions and other factors deemed relevant by our Board of Directors. Therefore, no assurance can be given as to the amount or timing of the declaration and payment of future dividends.

## Obama's \$25 Billion Government Motors Lemon

Posted 08/14/2012 05:40 PM ET

### General Motors Is No Success Story

Since President Obama bailed out GM and its unions, the car-maker's stock price, earnings and market share have turned lower, while the cost to taxpayers has surged.



[View Enlarged Image](#)

a massive and planned redistribution of wealth from them to the auto unions that form a key part of Obama's base and re-election drive.

In its analysis, the Heritage Foundation says all the taxpayer losses occurred because the administration manipulated bankruptcy law to shelter the United Auto Workers' compensation:

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"We estimate that the administration redistributed \$26.5 billion more to the UAW than it would have received had it been treated as it usually would in bankruptcy proceedings. ... Thus, the entire loss to the taxpayers from the auto bailout comes from the funds diverted to the UAW," Heritage reckons.

On the jobs front, the auto bailout did less than nothing. Neil Barofsky, special inspector general for the \$787 billion Troubled Asset Relief Program, reported to Congress that the forced closure of auto dealers, which hurt parts suppliers, was unnecessary and political.

"Treasury made a series of decisions that may have substantially contributed to the accelerated shuttering of thousands of small businesses and thereby potentially adding tens of thousands of workers to the already lengthy unemployment rolls," Barofsky said in a 45-page report.

Deciding which dealers were closed was determined by political, not business, reasons, with race and gender a key factor, the Barofsky report said. Some GM "dealerships were retained because they were recently appointed, were key wholesale parts dealers or were minority- or woman-owned dealerships."

Not even the push to force consumers into heavily subsidized electric cars like the Chevy Volt has helped.

As political consultant Karl Rove noted, GM employed roughly 252,000 workers in 2008. Now it has 207,000, with 131,000 working in foreign plants. Yet GM has not been accused of outsourcing jobs.

GM takes its place next to the Obama administration's Solyndra, another rotten fruit of an industrial policy where wealth is redistributed, not created, and where government picks winners and losers in an economy in which we all ultimately lose.

As the Obama campaign continues to tout the GM bailout as an industrial policy success, the Treasury Department continues to revise upward the staggering losses inflicted on U.S. taxpayers.

On the day Government Motors, aka GM, announced it was recalling at least 38,000 of its vehicles — Impalas used by police nationwide and in Canada — due to a crash risk, a new Treasury report said it now expects to lose \$25 billion on the bailout, \$3.3 billion more than forecast earlier.

As the Detroit News reported, this loss was based on GM's stock price at the time of the report, which was 15% higher than the previous report. Because the stock price has fallen since then, the latest report likely understates taxpayers' real losses.

The monthly report sent to Congress last Friday covers predicted losses through May 31, when GM's stock price was \$22.20 a share.

On Tuesday, GM fell \$0.26, or 1.3%, to \$20.21.

At that price, the government would lose another \$995 million on its GM bailout. The report notes the government still has 500 million shares of GM and needs to sell those shares at \$53 each for the government to break even on the bailout.

Worse yet, the entire financial loss suffered by taxpayers is the result of a massive and planned redistribution of wealth from them to the auto unions that form a key part of Obama's base and re-election drive.

The [electric vehicle](#)



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<http://nlpr.org/stories/2012/08/19/new-fisker>

[fire-while-taxpayers-cover-utility-bills-empty](#)

[plant](#)) about a week ago has led to the

third recall in the short life of taxpayer-

subsidized (\$193 million in [stimulus](#)

<http://nlpr.org/category/keywords/stimulus>)

Fisker Automotive (<http://nlpr.org/category/keywords/fisker>) and its plug-in

hybrid model, the Karma.



The first two recalls were caused by problems with batteries produced by

Fisker's similarly troubled supplier and business partner, [A123 Systems](#)

<http://nlpr.org/category/keywords/a123-systems>). The company said this time the

fire was caused by a failure in a cooling fan, which caused overheating while

the vehicle's owner shopped for groceries inside a store. About 2,400

Karmas – 1,400 of which are in the possession of customers – will need to

be recalled.

"We are committed to responding swiftly and decisively to events such as

this to ensure total customer satisfaction," said executive chairman Henrik

Fisker. "This incident resulted from a single, faulty component, not our

unique EV powertrain or the engineering of the Karma. As this situation

demonstrates, Fisker Automotive is dedicated to doing whatever is

necessary to address safety and quality concerns."

[Jeremy Gutierrez](#)

<http://www.autoweek.com/article/2012/08/CARNEWS/12050860#ixzz1uLAKN5u>) of

Sugar Land, Texas, who lost three vehicles and nearly his family and home

in the first fire caused by his Karma, might challenge that notion. The cause

of a previous fire, in May, still has not been explained. After that incident

Fisker implied the fault might lie with the owner.

"As of now, multiple insurance investigators are involved, and we have not

ruled out possible fraud or malicious intent," Fisker said in a May

[statement published by Autoweek.com](#)

<http://www.autoweek.com/article/2012/08/CARNEWS/12050860#ixzz1uLAKN5u>).

Based on initial observations and inspections, the Karma's lithium ion

[Fisker] thinks the most important thing in the world – or the only important thing in the world – is design, so he outsourced the engineering and manufacturing,” Musk said. “But the fact is...that’s the crux of the problem. And he’s outsourcing to people who don’t know how to solve the problem. So he came up with a product – it’s a mediocre product at a high price.”

Indeed, the Karma retails for more than \$102,000 (base), but the Tesla Model S sells in the \$50,000 range. Obviously the subsidies for the two small-time car companies, plus additional taxpayer billions for charging stations, parts, and \$7,500-per-purchaser tax credits, makes both vehicles a huge government giveaway to rich people. Worse, neither company’s history indicated any justification for the massive investments (Fisker a reported \$1 billion-plus in private funding) they have enjoyed, much less from taxpayers.

Musk, a tycoon who has [reaped millions of dollars](#)

<http://nlrc.org/stories/2012/05/15/taxpayers-subsidize-fortune-green-billionaires-schemes>) from government for schemes for EVs, solar and outer space, may feel good about Tesla compared to Fisker for the moment, but in the Automobile interview he revealed massive problems in management and development while he planned to seek those loans from the [Department of Energy](#) <http://nlrc.org/category/keywords/department-energy/>. He related what an auditor told him in 2008 about the costly problems he had with development and production of the Model S predecessor, the Roadster:

He said, “This is crazy, we’re going to be producing cars for twice as much as we’re selling them for. And by the way, a third of the car (it turned out to be two-thirds) doesn’t even work [laughs again], and even if we could make it, we shouldn’t make it. And we can’t make it. We had to do a massive redesign. We had to switch out the body supplier.



Highlighting that  
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[http://nlp.org/category/keywords/electric-vehicles](#)) are no more than a scheme to extract money from taxpayers rather than sell a viable product, the producer of a dismal-(but still highest) selling all-electric car in the U.S. confirmed they wouldn't exist at all without government.



Francis Bancon ([http://blog.nissan-global.com/EN/?tag=francois-bancon](#)), Nissan's ([http://nlp.org/category/keywords/nissan](#)) global general manager of product strategy and planning, could not have been more clear in a discussion with the media at the Australia launch of the all-electric [Leaf](#) ([http://nlp.org/category/keywords/nissan-leaf](#)). In the U.S., taxpayers are [backing a \\$1.4 billion loan guarantee](#) ([http://nlp.org/stories/2012/04/06/taxpayers-take-investment-nissan-ev-may-make-volt-look-good-comparison](#)) for Nissan to retrofit a Tennessee manufacturing plant to produce the Leaf.

"Yeah, [government support] is the key," Bancon said in [an interview](#) ([http://www.caradvice.com.au/177508/nissan-government-support- vital-to-its-success/](#)) reported by Web site Car Advice. "This technology is expensive; the car is expensive.

"Where we sell the best is where the governments offer their support... which is not only the incentive for the direct purchase, but also they are investing in the infrastructure."

His remarks followed [those](#) ([http://nlp.org/stories/2011/10/24/nissan-exec-promises-massive-sales-long-government-incentives-continue](#)) of Renault-Nissan CEO [Carlos Ghosn](#) ([http://nlp.org/category/people/carlos-ghosn](#)) (pictured) in October, who was positively giddy at the expectation that China would "invest" big in EVs. He was also optimistic because, as Reuters [reported](#) ([http://www.reuters.com/article/2011/10/24/renault-ill-USAID/1.KwZ6z0c11024](#)), "there had been no cancellations in incentives or support schemes for electric cars so far despite Europe's debt crisis and austerity measures."

"It does not matter if, for example, Portugal stops the incentives," Ghosn said, "as long as other countries like the United States continue to support."

When Ghosn made those remarks, he claimed Nissan was selling 1,500 Leafs per month in the U.S. But actual sales for the last three months of



It was all [too much to stomach](http://www.thegatewaypundit.com/2012/03/gop-rep-hews-out-steven-chu-youre-telling-me-my-constituents-need-to-buy-a-nissan-leaf-video/) (<http://www.thegatewaypundit.com/2012/03/gop-rep-hews-out-steven-chu-youre-telling-me-my-constituents-need-to-buy-a-nissan-leaf-video/>) back in March for Rep. Patrick McHenry, R-NC, when Energy Secretary Steven Chu (<http://dnc.org/category/people/steven-chu>) testified before a committee hearing on oil prices.

The policies this administration has put in place have actually increased the cost of fuel at the pumps," McHenry said. "And to tell my constituents, with 10 percent unemployment, Western North Carolina, that you need to go buy a Nissan Leaf? That in order to commute for 50 minutes a day you're going to have to have an employer who is wonderful enough to provide you a place to plug in your car, so you can get home? Is absolutely ridiculous."

Despite the massive government "investment," Nissan is now [fighting off](http://www.greencarreports.com/news/1026847_2011-nissan-leaf-battery-capacity-loss-nissan-responds) allegations ([http://www.greencarreports.com/news/1026847\\_2011-nissan-leaf-battery-capacity-loss-nissan-responds](http://www.greencarreports.com/news/1026847_2011-nissan-leaf-battery-capacity-loss-nissan-responds)) that its Leaf batteries are [experiencing capacity](http://www.greencarreports.com/news/1027710_more-nissan-leaf-battery-loss-nissan-keant-blink) loss ([http://www.greencarreports.com/news/1027710\\_more-nissan-leaf-battery-loss-nissan-keant-blink](http://www.greencarreports.com/news/1027710_more-nissan-leaf-battery-loss-nissan-keant-blink)). But in Australia, Nissan officials bemoan the fact that their country does not provide the financial incentives or payment for charging infrastructure that the U.S. does, which is characterized as a lack of leadership.

None of us thinks twice about our tax dollars going towards maintaining the highways and off ramps and the street lights," [said](http://www.carschoice.com.au/177598/nissan-government-support-rital-to-ev-success/) (<http://www.carschoice.com.au/177598/nissan-government-support-rital-to-ev-success/>) Peter Clissold, executive general manager of marketing for Nissan Australia. "What it is really going to require I think is expanding our horizons in that regard and viewing charging stations as today's version of an off ramp or a highway. I think when the public puts pressure on officials in that regard we'll see some things change."

While [General](#)

[Enter friends on your own site](#)

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[Motors](#)

<http://nlpc.org/category/keywords/general-motors/>

[Chevy Volt](#) (<http://nlpc.org/category/keywords/chevy-volt>) assembly workers are [sidelined for five weeks](#)

<http://www.gobusiness.com/chevy-volt-production-suspended-5-weeks-shg-force-exceeded-demand-r456a.html>

(and more this summer) because demand for its strongly hyped [electric car](#)

<http://nlpc.org/category/keywords/electric-car/> is weak, the prospects for its chief rival – [Nissan's Leaf](#) (<http://nlpc.org/category/keywords/nissan-leaf/>) – are shaky at best.



Nissan North America, Inc. – a subsidiary of its Japanese parent – is the beneficiary of a \$1.4 billion Advanced Technology Vehicle Manufacturing Grant (<https://doe.energy.gov/projects-nissan-north-america-inc/>) from the U.S.

Department of Energy (<http://nlpc.org/category/keywords/department-energy/>), to convert a plant in Smyrna, Tenn. to produce the Leaf and batteries for it.

The project's promoters say the alterations will lead to 1,300 new jobs, enabling Nissan to produce up to 150,000 Leafs and 200,000 battery packs per year, which will lead to the all-important avoidance of 204,000 tons of carbon dioxide emissions – or so they say.

But there's just one problem: Sales of the Leaf are not much better than the Volt's have been, and lately have been much worse. [In 2011](#)

<http://www.bloomberg.com/news/2012-01-04/gm-s-chevy-volt-misses-2011-sales-target-as-safety-probe-goes-on.html>

Chevrolet sold 7,671 of its plug-in Volt, whose range is extended with the help of a small gasoline tank. Nissan sold 9,674 of the purely electric Leaf last year. So far through the end of March this year GM has delivered 4,095 Volts, while only 1,733 Leafs have been sold.

So if demand isn't strong enough to keep a GM line running to build the Volt, how can the current level of sales for the Leaf justify the enormous plant investment Nissan is making in Tennessee? [USA Today reported](#)

<http://content.usatoday.com/communities/drivem/post/2012/03/electric-cars-chevrolet-volt-fisker-karma-nissan-leaf/1>

a few weeks ago that as gasoline prices reach \$4 per gallon, electric vehicles still “face dark days.” Industry expert LMC Automotive predicts EV sales will remain below 1 percent through 2017.

Why would this be? Because even with billions of dollars in “investment”

mile) to travel 180 miles last year. Besides the facts that range is reduced even more [by using heating and air conditioning](#) (<http://nlpe.org/stories/2011/11/30/nissan-leaf-fails-real-life-test-miserably/>), or by driving on inclines, there is the issue that you [can't even depend on its battery gauge](#) (<http://nlpe.org/stories/2011/11/07/hollywood-liberals-love-ev-everyone-else-not-so-much/>) (the equivalent of a fuel gauge in a gas-powered car).

I am ready to turn over a new Leaf – my own,” [wrote](#) [http://www.jewishjournal.com/rob\\_eshman/article/my\\_2011\\_nissan\\_leaf\\_20111026/](http://www.jewishjournal.com/rob_eshman/article/my_2011_nissan_leaf_20111026/) Rob Eshman, editor-in-chief of The Jewish Journal of Greater Los Angeles.

While Nissan CEO [Carlos Ghosn](#) (<http://nlpe.org/category/people/carlos-ghosn/>) (pictured) would obviously love to see sales of the Leaf take off, he has said in so many words) that government subsidies [are the reason](#) (<http://nlpe.org/stories/2011/10/24/nissan-exec-promises-record-sales-long-government-credits-continue/>) for his pursuit of EV technology, rather than successes based upon qualities such as value, styling, safety rankings, or popularity with the purchasing public.

It does not matter if, for example, Portugal stops the incentives, as long as other countries like the United States continue to support,” Ghosn [told Reuters in October](#) (<http://www.reuters.com/article/2011/10/24/renault-dusaEOLK2G220111024/>). “If countries like France, Japan and the UK support and then China, that is about to start to support, that’s fine.”

The Brazilian-born Frenchman, who also chairs Renault, also does not hide the fact that he supports government control of markets and its attempts to stimulate technologies, no matter the cost.

We must diversify the energy mix used to fuel our vehicles,” Ghosn [wrote last month](#) (<http://www.forbes.com/sites/joannmuller/2011/03/14/carlos-ghosn-three-carmakers-can-save-the-world/>) for Forbes. “Petroleum-based fuels now account for 96 percent of the world’s automotive energy mix. By mandating targets and requirements at the level of the state, we can increase the mix of renewable fuels.”

versus the extra cost of the EV. That is a dubious assumption, since after that amount of time all – or a lot of – the depleted battery pack will need to be replaced. Time will tell, but if like most batteries it needs entire replacement, the cost is likely to exceed \$30,000.

<http://www.autoblog.com/2011/08/02/need-to-replace-a-nissan-leaf-battery-chance-10-1000-14751-1/>.

Nissan disputes that <http://www.autoblog.com/2011/08/02/need-to-replace-a-nissan-leaf-battery-chance-10-1000-14751-1/> is correct. Of course, but is it worth risking the unknown for a vehicle that is only capable of traveling much fewer miles than would an equivalent gas-powered car such as the Nissan Versa or Chevy Cruze?

Got that that matters to Ghosh, since in his view, the purpose of the automobile business is to serve the collective through the manipulations of government.

We have a social responsibility to ensure that this industry grows sustainably," he wrote in his *Forbes* piece, "and if we uphold our responsibility, we will increase the quality of life for everyone on our planet."

*Paul Chesser is an associate fellow for the National Legal and Policy Center.*

When is a  
government  
watchdog not really a watchdog?

When he rolls over and lays at the feet of his master rather than sink his teeth into a program that he's been tasked to guard.

Such appears to be the (unsurprising) case with [Herbert Allison, Jr.](#)

<http://nlpc.org/category/people/herbert-allison-jr>

(pictured), a former Wall Street executive ([Merrill Lynch](#) <http://nlpc.org/category/keywords/merrill-lynch>

and TIAA-CREF) until he was appointed president and CEO of Fannie Mae in 2008, after it was put into conservatorship. Subsequently [President Obama](#) <http://nlpc.org/category/people/president-obama> named (and the Senate confirmed) him as overseer of the [Troubled Asset Relief Program](#) <http://nlpc.org/category/keywords/tarp> (TARP), the \$700 billion asset acquisition fund that bailed out Wall Street financial institutions. He served in that role for about 15 months, until September 2010.

But it's Allison's role as a special investigator of the [Department of Energy](#) <http://nlpc.org/category/keywords/department-energy>'s stimulus-funded [loan program](#) <http://doe.energy.gov/> that is sparking curiosity, as explained in [an Associated Press story published yesterday](#)

[http://hessellan.org/dynamic/stories/1/US\\_CAMPAIGN\\_OBAMA\\_DONOR?](http://hessellan.org/dynamic/stories/1/US_CAMPAIGN_OBAMA_DONOR?SITE=FLTA&SECTION=HOME&TEMPLATE=1)

[SITE=FLTA&SECTION=HOME&TEMPLATE=1](#)). Not long after Allison determined that billions in taxpayer dollars invested in Obama-favored "green" technology companies were at nominal risk, he made campaign donations – big ones – to the Democratic National Committee and the president's re-election efforts.

...Allison, in congressional testimony in March, minimized concerns that the Energy Department was at high risk in more than \$23 billion in federal loans awarded to green energy firms," AP's Stephen Braun reported. "Two weeks later, Allison began giving to the Obama campaign. His contributions to Obama and the Democratic National Committee totaled \$52,500 by last month."

More precisely, Allison's 75-page report on the DOE program was released

[Obama.org](#) on 10/11. He delivered testimony about his findings to the Senate

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He also notes that his review was less exhaustive than it could have been," CPI reported, "because it was put on a 60-day fast track by the White House."

That sounds very convenient for the Obama administration and very compliant of Allison. It also flies in the face of his comments to Associated Press, whom he told, "I was on the record with the White House that this had to be completely independent review and they agreed. It didn't hew to anybody's political suasion, I think, and it had to be fully factual or it wouldn't be credible."

Excluding Solyndra and Beacon Power was not exactly a sincere look into where problems might lay. So it shouldn't surprise that Allison – again, hired by the White House, so how "independent" could he really be – [concluded](http://npr.org/stories/2012/02/14/integrity-fisker-equity-fundraisers-questioned) that only \$2.7 billion in the programs were "at risk," less than the nearly \$3 billion DOE had set aside to cover potential losses. In its infinitely warped perception of the appropriate use of taxpayer dollars, the Obama administration seemed relieved that Allison's findings fell within their parameters of acceptable failures and casually suggested DOE create a "risk management department."

Upon the release of Allison's report, House Energy and Commerce Committee Chairman Fred Upton and Oversight and Investigations Subcommittee Chairman Cliff Stearns – even before they knew about his political contributions to Obama and the DNC – were skeptical.

"It would be a stunning case of bureaucratic disregard to declare victory because the government is expecting to lose 'just' \$3 billion," the Congressmen said in a joint statement. "One key lesson is that taxpayers should not have been placed in the position to lose one dollar, let alone billions, all because the stimulus allowed companies with shaky finances to

Allison was essentially threatening me with lifelong unemployment," Barofsky wrote.

As the *Washington Post* [reported in February 2011](http://www.washingtonpost.com/archive/local/local-news/2011/02/14/?hpid=hp%3Aenergy%3Ahomepage%2Fstory&hpid=hp%3Aenergy%3Ahomepage%2Fstory)

<http://www.washingtonpost.com/archive/local/local-news/2011/02/14/?hpid=hp%3Aenergy%3Ahomepage%2Fstory&hpid=hp%3Aenergy%3Ahomepage%2Fstory>

<http://www.washingtonpost.com/archive/local/local-news/2011/02/14/?hpid=hp%3Aenergy%3Ahomepage%2Fstory&hpid=hp%3Aenergy%3Ahomepage%2Fstory> when Barofsky retired as SIGTARP, his "aggressive oversight of the government's \$700 billion bank bailout program has become a thorn in the Obama administration's side." One might wonder if he was a big reason Allison left the Treasury Department in September 2010.

Had Allison (or anybody, for that matter) exercised serious scrutiny into DOE's loan program, they would have discovered political conflicts of interest, such as the Energy Department's [effort to hide Solyndra's layoffs](http://www.publicintegrity.org/2011/11/15/7408/emails-show-energy-dept-sought-hide-obvindra-layoffs-until-after-2010-elections) <http://www.publicintegrity.org/2011/11/15/7408/emails-show-energy-dept-sought-hide-obvindra-layoffs-until-after-2010-elections>) until after the 2010 election. Another area ripe for examination was the fact that [big New York law firms](http://nlpe.org/stories/2012/09/28/obama-supporting-law-firm-advised-failed-fisker-loan) <http://nlpe.org/stories/2012/09/28/obama-supporting-law-firm-advised-failed-fisker-loan>) that donated large amounts to Obama and Democratic candidates were asked with the review of renewable energy companies' eligibility <http://nlpe.org/stories/2012/09/28/lawyers-who-backed-obama-advised-failed-bun-programs>) for DOE stimulus loans. Firms like [Debevoise and Plimpton](http://nlpe.org/category/keywords/debevoise-and-plimpton) <http://nlpe.org/category/keywords/debevoise-and-plimpton>), for example, allowed borderline-failing [electric vehicle](http://nlpe.org/category/keywords/electric-vehicles) <http://nlpe.org/category/keywords/electric-vehicles>) company [Fisker Automotive](http://nlpe.org/category/keywords/fisker) <http://nlpe.org/category/keywords/fisker>) to pass muster and [receive](http://doe.energy.gov/?project=fisker-automotive) <http://doe.energy.gov/?project=fisker-automotive>) one of the [Advanced Technology Vehicles Manufacturing loans](http://doe.energy.gov/?page_id=453) [http://doe.energy.gov/?page\\_id=453](http://doe.energy.gov/?page_id=453)). Fisker was such a bust that DOE had to cut off distribution of funds after \$193 million, despite an initial award of \$529 million.

But these apparently were matters of little concern to Herb Allison. More

## Venture Capitol: New VC Force

By NEIL KING JR.

When tiny Fisker Automotive Inc. hit a financing glitch last year, threatening its plan to build a fancy gasoline-electric hybrid car in Finland, it turned to the U.S. Department of Energy.

The DOE had a bolder idea. Why not also step up the company's plans to develop a less-expensive model, and assemble it in a closed U.S. auto plant?

Within months, Vice President Joe Biden, the former senator from Delaware, was helping lure the embryonic car company to a shuttered General Motors Co. factory four miles from his house in Wilmington, right across the tracks from Biden Park. Soon, Fisker Automotive, a two-year-old business that has yet to sell a car, won loans from the federal government totaling \$528 million.

Fisker had joined a flock of other businesses seeking cash from the biggest venture capitalist of all, the U.S. government.

The DOE hopes to lend or give out more than \$40 billion to businesses working on "clean technology," everything from electric cars and novel batteries to wind turbines and solar panels. In the first nine months of 2009, the DOE doled out \$13 billion in loans and grants to such firms. By contrast, venture-capital firms -- which have long been the chief funders of fledgling tech firms, taking equity stakes in the start-ups that will pay off if they go public -- poured just \$2.68 billion into the sector in that time, according to data tracker Cleantech Group.

Thus, while much attention has been focused on the federal government's involvement in banking, Washington also is gaining sway in another swath of the economy. By financing clean-tech ventures on a large scale, the government has become a kingmaker in one of technology's hottest sectors.

Some young companies are tailoring their business plans to win DOE cash. Private investors, meanwhile, are often pulling back, waiting to see which projects the government blesses. Success in winning federal funds can attract a flood of private capital, companies say, while conversely, bad luck in Washington can sour their chances with private investors. The result is an intertwining of public and private-sector interests in an arena where politics is never far from the surface.

In Delaware, "We had five individuals beating the band -- the three members of the [congressional] delegation, the governor and the vice president," said the state's chief of economic development, Alan Levin. "We had in the vice president a secret weapon, except there is nothing secret about Joe Biden."

A spokeswoman for Mr. Biden said he made no direct appeals to DOE on Fisker's behalf before the loan was approved, though he did talk to the company several times afterward to put in a plug for his home state.

At the DOE, Matthew Rogers, who helps oversee the department's loans, said proposals are vetted by "deal teams" insulated as much as possible from outside pressure. "Lots of people can call the [energy] secretary, but that doesn't mean that any of that necessarily flows down to the deal-team level," he said.



"The existence of an 800-pound gorilla putting massive capital behind select start-ups is sucking the air away from the rest of the venture-capital ecosystem," said Darryl Stry, former head of marketing at Tesla Motors Inc., a San Carlos, Calif., company that got a \$365 million DOE loan in June to build high-end electric cars. "Being anointed by DOE has become everything for companies looking to move ahead."

Bright Automotive Inc. is still seeking anointment. Based in a small warren of offices outside Indianapolis, Bright looked set to take off in September 2008. Investors were poised to give it more than \$100 million to move ahead on a lightweight hybrid delivery van, and it had lined up major corporations as potential customers.

When the financial crisis hit in that same month, investors bowed out. Though a few have since tiptoed back, enabling Bright to build a prototype, its principal hope for now lies in the DOE, from which it is seeking a large loan to get under way.

"We are caught in this blender of historically new forces, somewhere between the public and private worlds," said Bright's chief executive, John Waters. Without a government loan, private investors are reluctant to jump in, he says, while the DOE loan team is wary of backing ventures that haven't already won significant support in the private sector.

The DOE acknowledges it looks to back companies that already have substantial private funding, with the hope that federal money will in turn attract more private investment.

Fisker, based in Irvine, Calif., got rolling two years ago with seed money from two of Silicon Valley's largest venture-capital firms, Palo Alto Investors LLC and Kleiner Perkins Caufield & Byers. They and some smaller investors put up nearly \$160 million to move Fisker's first car, called the Karma, off the design table and into early production. But to fine-tune the engineering and put it into full production, Fisker needed at least \$200 million more.

In December 2008, Fisker turned to the DOE's \$25 billion Advanced Technology Vehicle Manufacturing loan program, which Congress had funded to launch new, high-efficiency vehicles.

Fisker applied for about \$170 million to get the Karma rolling. It also put in a second application, hoping eventually to win financing to build a cheaper model, code-named the Kx, which the company didn't envision bringing to market until around 2015.

DOE officials and their advisers expressed strong interest in the Karma proposal, say people involved in the talks, but they were wary of the Kx. Its engineering remained vague, and Fisker was far from having a prototype.

By late spring, DOE was pushing ahead briskly on the Karma loan, say people involved in the deal. But the Karma presented a political challenge: It was already being assembled, under contract, at a plant in Finland. Though it used mainly U.S.-made components, so a federal loan would help U.S. parts makers, the boost for U.S. workers would be limited.

DOE then came to Fisker with a surprising proposal: Find a U.S. site to build the Kx, and DOE would agree to fund both projects together. Fisker could then start gearing up to make the Kx even before the Karma hit the market. Close advisers to Fisker said the issue of job creation had become key to officials within the administration.

"The government's interest sped it all up," said David Anderson, a partner at the Palo Alto Investors venture-capital firm, who followed the DOE process closely. "The government basically said, 'Let's make this happen sooner rather than later.'"

In the middle of August, they learned the plant had drawn interest from Fisker. CEO Henrik Fisker came to see it and dropped by the office of a Delaware senator, Tom Carper, a Democrat. The visit unleashed a flurry of activity. Gov. Jack Markell, also a Democrat, quickly called an old friend at Kleiner Perkins to check on Fisker. "Basically, we wanted to know, 'Are they for real?'" said Mr. Levin.

Kleiner Perkins itself has political roots. A leading partner, John Doerr, sits on President Barack Obama's economic advisory board, and another partner is former Vice President Al Gore.

The DOE, in August, hadn't yet ruled on Fisker's loan request. Delaware's governor and congressional delegation began peppering U.S. Energy Secretary Steven Chu with calls on Fisker's behalf. They also had repeated discussions with Vice President Biden and his staff, according to Mr. Levin and several others.

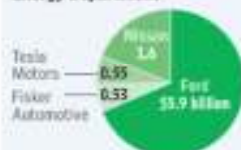
In early September, Gov. Markell told Fisker that if it occupied the shuttered GM plant it would get an array of state incentives worth up to \$22 million, including \$9 million in cash for utilities. He promised to buy the first car off the line.

On Sept. 17, he ran into Mr. Chu at an event in Pennsylvania. "I know, I know -- Fisker," Mr. Chu said as soon as he saw him, according to the governor, who said Mr. Chu told him he was "hearing from everyone in Delaware."

## Car Money

Investments in U.S. advanced vehicles this year, by:

### Energy Department



### Private venture capitalists



Note: Through September  
Source: Energy Department; Cleantech Group

Five days later, Mr. Chu announced the government had signed a provisional agreement to lend Fisker nearly \$170 million to complete engineering of the Karma, as well as \$360 million to develop the less-expensive model Kx, which the company then began to call the Nina. Fisker still plans to assemble the Karma in Finland but will make the Nina in Delaware. Mr. Chu said the DOE funding would help reduce dependence on foreign oil as well as create "thousands of new American jobs."

People familiar with the loan say the government based the amount partly on its assessment that the Nina, which will sell for about \$40,000 after government tax rebates, could draw world-wide annual sales of around 130,000 -- nearly twice Fisker's own projection.

Mr. Fisker, a former designer of sleek sports cars for BMW and Aston Martin, said he is sure his company would have won DOE funding without the Delaware politicians' support but credits it with speeding the approval. He added that Fisker picked the Delaware plant because it made economic sense.

Though its first model, the Karma, won't be available for test drives for months, Fisker says more than 1,500 potential buyers have put down refundable deposits on the car, expected to sell for \$88,000.

On Oct. 27, about a month after the DOE approved loans to Fisker, its executives and Delaware politicians gathered in Wilmington for an announcement. In the morning, Mr. Biden played host to United Auto Workers brass for breakfast at his house near the Boxwood Road plant.

Then they joined hundreds of auto workers and local dignitaries at the factory. Gov. Markell announced Fisker was buying it from the post-Chapter 11 remnant of GM called Motor Liquidation Co. for just \$18 million. The deal includes a high-end paint facility and other equipment that industry experts say would cost more than \$300 million to replace.

dignitaries behind a curtain for the  
orty car body, bright red, but with  
a beautiful car," he said.

[@wsj.com](mailto:)

# GM's Phony Bailout Payback

GM's Phony Bailout Payback  
The company is setting the stage for another taxpayer shakedown

by Vikha Dalmia | April 27, 2010

GM CEO Ed Whitacre announced in a *Wall Street Journal* [column](#) last Wednesday that the company has paid back its government bailout loan "in full, with interest, years ahead of schedule." He is even running [TV ads](#) on all major networks to that effect—a needless expense given that a credulous media is only too happy to parrot his claims for free. *Troitt Free Press'* Mike Thompson, for example, [advises](#) bailout proponents to start "arming up their vocal chords" to jeer their opponents with chants of "I told you so."

But before belting out their victory aria, GM-boosters ought to hear the whole story—not the fairytale version about Government Motors' grand comeback that Whitacre is peddling them.

When Sam gave GM [\\$49.5 billion](#) last summer in aid to finance its bankruptcy. (If it hadn't, the company, which couldn't raise this kind of money from private lenders, would have been forced into liquidation, its assets sold for scrap.) So when Whitacre publishes a column with the headline, "The GM Bailout: Paid Back in Full," most ordinary mortals unfamiliar with bailout minutia would assume that he is alluding to the entire \$49.5 billion. That, however, is far from the case.

Because a loan of such a huge amount would have been politically controversial, the Obama administration handed GM only \$6.7 billion as a pure loan. (It asked for only a 7 percent interest rate—a very sweet deal considering that GM bonds at that time were trading below junk level.) The vast bulk of the bailout money was transferred to GM through the purchase of 60.8 percent equity stake in the company—arguably an even worse deal for taxpayers than the loan, given that the equity position requires them to bear the risk of the investment without any guaranteed return. (The Canadian government likewise [gave](#) GM \$1.4 billion as a pure loan, and another \$8.1 billion for an 11.7 percent equity stake. The U.S. and Canadian government together own 72.5 percent of the company.)

When Whitacre says GM has paid back the bailout money in full, he means not the entire \$49.5 billion—the loan and the equity. In fact, he avoids all mention of that figure in his column. He means only the [\\$6.7 billion loan](#) amount.

But what if even that sort of help is given that GM, which has not yet broken even, much less turned a profit, can't pay even this puny amount from its own earnings.

So how is it paying it?

As it turns out, the Obama administration put \$13.4 billion of the aid money as "working capital" in an escrow account when the company was in bankruptcy. The company is using this escrow money—government money—to pay back the government loan.

GM claims that the fact that it is even using the escrow money to pay back the loan instead of using it all to shore itself up shows that it is on the road to recovery. That actually would be a positive development—although hardly one worth hyping in ads and columns—if it were not for a further plot twist.

Sean McAlinden, chief economist at the Ann Arbor-based Center for Automotive Research, points out that the company has applied to the Department of Energy for \$10 billion in low (5 percent) interest loan to retool its plants to meet the government's tougher new CAFÉ (Corporate Average Fuel Economy) standards. However, giving GM more taxpayer money on top of the existing bailout would have been a political disaster for the Obama administration and a PR debacle for the company. Paying back the small bailout loan makes the new—and bigger—DOE loan much more feasible.

In short, GM is using government money to pay back government money to get more government money. And at a 2 percent lower interest rate at that. This is a nifty scheme to refinance GM's government debt—not pay it back!

GM boasts that, because it is doing so well, it is paying the \$6.7 billion five years ahead of schedule since it was not due until 2015. So will there be an accelerated payback of the rest of the \$49.6 billion investment? No. That goal has been pushed back, as it turns out.

In order to recover that investment, the government has to sell its equity. It plans to do that only when GM becomes a publicly traded company once again. GM was hoping to turn a profit by the end of 2010 and float an initial public offering this winter. However, GM Chief Financial Officer Chris Liddell, when queried about that timeline a few days ago, demurred. The offering will be made, he said, "when the markets and the company are ready."

(Take that, taxpayers!)

The reality is that there is no certainty that GM will ever be able to make taxpayers whole. Some analysts such as Center for Automotive Research's Sean McAlinden and Global Insight's George Magliano believe that it will—eventually. McAlinden maintains that this will happen when the company's market capitalization touches \$60 billion. (At GM's peak in 2000, this level was only \$57 billion.) This is a challenging but not an impossible goal—provided the economy does not dip into another recession, he maintains. Magliano too maintains that the company will be able to pay back taxpayers if the industry is able to ramp up annual vehicle sales from the expected 10.8 million this year to 17 million in 2014.

captures 20 percent of these sales.

Ill Accountability Office, on the other hand, remains deeply pessimistic. In a December report (which a more recent April report has said notwithstanding despite media spin to the contrary) that: "The Treasury is unlikely to recoup its investment in Chrysler or GM, given that the companies' value has fallen substantially more than they have in the past."

GM's bailout payback ploy is a desperate attempt to win back the car-buyers who were ousted by the spectacle of GM rattling its tin-cup before Uncle Sam. The danger is that the company is still deep in the hole. It might claw its way out, but surely it's premature for its media boosters to pop open the champagne about getting their story straight?

*Michael R. Lipton is a senior analyst at Reason Foundation and a biweekly columnist. His column originally appeared at Forbes.*

THURSDAY, SEPTEMBER 23, 2010

## Goldman Sachs discloses ownership in Talison Lithium Corp.

Talison Lithium Ltd's  
are stockpiled at one of  
its plants in  
Greenbushes,  
Australia>>>

Talison Lithium  
Limited - Press Release  
TORONTO, Sept. 23  
The Goldman Sachs  
Group, Inc.  
("GS & Co."), 200 West  
Street, ("GS Group"),  
200 West Street,

New York, NY, 10282 New York, NY, 10282

GS&Co. & GS Group are hereinafter referred to collectively as the  
"Offeror"

2. The designation and number or principal amount of securities and the  
offeror's securityholding percentage in the class of securities of  
which the offeror acquired ownership or control in the transaction at  
occurrence giving rise to the obligation to file the news release,  
and whether it was ownership or control that was acquired in those  
circumstances.

In connection with a plan of arrangement completed on September 22,  
2010 involving Talison Lithium Limited (the "Company") and Salares  
Lithium Limited ("Salares"), the Company acquired all of the issued  
and outstanding securities of Salares in exchange for either ordinary  
shares in the capital of the Company ("Shares") or the equivalent  
number of exchangeable shares (which may be exchanged for Shares on a  
one-for-one basis) (the "Arrangement"). Further details regarding the  
Arrangement are set out in the joint press release of the Company and  
Salares dated September 22, 2010, which has been filed with the  
applicable regulatory authorities and is available on the Company's  
SEDAR profile at [www.sedar.com](http://www.sedar.com).

Prior to the Arrangement, the Company was a private issuer and the  
Offeror and certain direct or indirect subsidiaries of GS Group  
beneficially owned and controlled 11,270,431 Shares (the "Offeror  
Shares"). The Offeror did not acquire any additional Shares in  
connection with the Arrangement. On September 23, 2010, in connection  
with the Arrangement, the Shares commenced trading on the **Toronto**



# Chrysler steps on the gas and puts EVs, hybrids on hold

by Automotive News

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DETROIT--Chrysler Group has scaled back its ambitious plans for hybrids and electric vehicles and instead is placing its green bets on internal combustion engines that use Fiat technology. [Automotive News](#)

As Chrysler slid toward bankruptcy in September 2008, it rolled out several hybrid and all-electric vehicles to bolster its green credentials in the eyes of the federal government.

Then-CEO Bob Nardelli put hybrids and electrics on the fast track under the umbrella of a separate division called ENVI and made alternative propulsion a centerpiece of Chrysler's survival strategy. The company, at the time owned by Cerberus Capital Management, showed off plug-in hybrid versions of the Chrysler Town and Country minivan and Jeep Wrangler and an all-electric sports [car](#) called the Dodge Circuit, designed with help from Lotus.

What a difference a change in management makes. Now, with Fiat input, Chrysler is wringing extra fuel economy out of the internal combustion engine wherever possible.

"When we made the alliance with Fiat, we had a lot more opportunity with fuel economy with lighter platforms and smaller engines," said Chrysler spokesman Nick Cappa. "The vehicles



Chrysler showed the Dodge Circuit EV at the 2009 Detroit auto show.



viously associated with ENVI were technology (Credit: CBS) demonstration vehicles."

There are no plans to make production versions of those ENVI vehicles. The division was absorbed into Chrysler's powertrain operations.

Chrysler canceled plans to build a Two-Mode hybrid version of the Ram 1500. Two-Mode hybrid versions of the Chrysler Aspen and Dodge Durango SUVs went out of production in late 2008 just a few short months after they went into production.

Instead, Chrysler is pursuing a variety of fuel-saving technologies with Fiat. Fiat, which has been a leader in high-pressure diesel engine technology in Europe, is bringing its latest gasoline engine know-how to North America.

Fiat's 1.4-liter Fire engine will make its North American vehicle debut when the Fiat 500 Minicar arrives here late this year. The MultiAir system improves fuel economy and reduces carbon emissions.

Fiat also is a leader in compressed natural gas, and Chrysler can tap into that, Cappadocia said. Fiat sold about 200,000 compressed natural gas cars and commercial vehicles in Europe last year.

The only all-electric vehicle now in Chrysler's plan is an electric Fiat 500, due to arrive in 2012. Chrysler is designing the powertrain for the Fiat electric and will remain the center of competence for electrics and hybrids.

Chrysler does plan a test fleet of 140 Ram hybrid pickups in 2011

Source: [Automotive News](#))

**Are you satisfied with this award? Yes or No**

No votes have been cast for this award yet.

**Award Description:** Support to the offices of the Loan Guarantee Program and the Chief Financial Officer.

**Project Description:** Began analysis of potential clients that might seek Loan Guarantees under the program to be established by the LGPO in response to the 'American Recovery and Reinvestment Act of 2009'. Lead efforts to complete the Agency Wide Recovery Plan (AWRP) and Program-Specific Recovery Plans (PSRPs) by the May 15 deadline. Lead and participate in the review process for Project Operations Plans (POPs) and RSRPs. Develop the AWRP beyond the May 15 submission and present ad-hoc summaries and data analyses as necessary. Began conducting market-based analyses and developing recommendations for the award of auto loans under the ATM Program. Provide specialized advice on technological, operational, economic and consumer trends in the automotive industry, successfully and expeditiously analyzing the loan applications, performing industry and market analysis on the projected impact of individual projects, and developing recommendations for the award of the loans. Support the Chief Financial Officer in the administration of the Loan Guarantee Program and its administration of the authority granted under the American Recovery and Reinvestment Act of 2009 (the Recovery Act). The contractor will provide Financial, Budgetary and Economic Analysis and Program Management Support for the implementation of this initiative. Support the Loan Guarantee Program office (LGPO) of the DOE in its analysis of potential clients that might seek Loan Guarantees under the program to be established by the LGPO in response to the 'American Recovery and Reinvestment Act of 2009'. The LGPO requires the services of a financial advisor to prepare a draft solicitation based on the findings from the survey covered in Subtask #59. Began providing Financial, Economic Analysis, and Program Management Support for the implementation of this initiative.

**Jobs Summary:** Hired 12 consultants and one new employee to perform initial activity. (Total jobs reported: 13)

**Project Status:** Less Than 50% Completed

This award's data was last updated on May. 15, 2009. Help expand these official descriptions using [the wiki](#) below.

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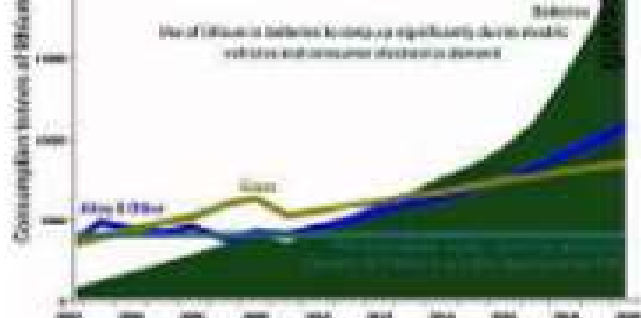
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**Funds from this award have been disbursed to subcontractors. [Click here to see a list of subcontractors.](#)**

**Subcontractors**

Recipient	Amount	City	State
Deloitte & Touche L.L.P.	\$1,247,000	MC LEAN	VA
Edge Consulting LLC	\$489,519	CHANTILLY	VA
Greengate, LLC	\$614,195	WASHINGTON	DC
A. T. Kearney, Inc.	\$1,258,557	CHICAGO	IL

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We have another report on Energy Storage space which provides a view from Goldman Sachs on the sector this time. In Lithium space we have our own fast developing story, when Japanese Trading Houses are in a rush to secure Lithium supply.

*Asian lithium rush continues. One more Junior in Lithium is gone from the market for potential deals. We were not following geothermal as source of lithium so close as it is more risky than well defined extraction from brines and hard rock lithium deposits. Chemistry should be right and the process is much more complicated, but this move by Itochu shows that Japanese conglomerates are ready to go the distance in order to secure Lithium supply from different sources. After Korean Korea deal with lithium One we have on our radar screens two juniors involved in Lithium brines in Argentina and Nevada are left for J/V deals: International Lithium and Rodinia Minerals. Japanese are using recent soft markets to grab all available lithium projects on the development stage and with this rate of deal announcement all reliable Canadian juniors in Lithium could be engaged by the end of this summer.*

## Goldman Sachs: Americas: Clean Energy: Storage: Batteries

Posted by Ruby at 1:00 PM



Reactions:

Labels: Alternative Energy, Batteries, CleanTech, Electric Cars, Global warming, Green Energy, Green Mobility Revolution, Hybrid Cars, Lithium

performance and costly electric vehicles.

Dan Leistikow, the DOE official, struck back. "Critics have complained that the first vehicles introduced by Fisker and Tesla are more expensive, high-end vehicles."

"This complaint misses the mark in several respects. First, both manufacturers plan to start with high end vehicles and then quickly move to more affordable product lines," Leistikow wrote in October.

"These are start-up companies that intend to grow over time, so they are following a common pattern for emerging companies: starting with a premium product for a smaller customer base, and eventually moving to lower cost, mass marketed products as they gradually scale up operations," he added.

Leistikow also noted that other loans under the ATVM program have supported less expensive vehicles. Ford and Nissan have received the largest loans under the ATVM program.

But Grassley, in a statement, questioned the DOE support for Fisker.

"It's important to know what went into the Energy Department's decision to fund the production of expensive luxury vehicles. The riskiness of loans to companies that may or may not be able to pay them back deserves scrutiny. The taxpayers can't and shouldn't have to subsidize these decisions," he said in a statement Monday.

**Update:** An Energy Department spokesman defended the loan program and the Fisker support specifically in a statement to The Hill.



## **GOP accuses Chu of false testimony**

By Zack Colman - 08/15/12 03:32 PM ET

Republicans accused Energy Secretary Steven Chu on Wednesday of offering false testimony on the Energy Department loan program that gave funds to failed solar firm Solyndra.

Rep. Darrell Issa (R-Calif.) said a briefing on the loan program's status that Chu provided to President Obama in June of 2011 contradicts Chu's testimony to the committee earlier this year about the extent of his communication with the White House.

They also allege the private emails show Chu was involved in a meeting with former White House Chief of Staff William Daley on the loan guarantee program.

The lawmakers say this conflicts with testimony Chu gave in which he said he did not communicate directly with the White House about the energy program. The program became a huge controversy after the bankruptcy of Solyndra, which received a \$535 federal loan guarantee.

Becca Watkins, a spokeswoman with the committee, told The Hill that it is "a little bit of a gray area" on whether this is the first time the committee has made such accusations against Chu. Issa sent a letter in July asking Chu to clarify his involvement with the loan program, but Watkins said "this time we have the documents."

The March testimony from Chu the lawmakers cite in the letter is clipped from a fuller line of questioning. Video of the hearing shows Chu's answers were not in response to his communication with the White House about the program as a whole, but rather his knowledge of nine specific projects.

Rep. Jim Jordan (R-Ohio) asked Chu during that hearing about whether he corresponded with the administration about that select, specific group of energy loans through the program. Chu responded that he had not.

One of those projects Jordan mentioned was Solyndra, Watkins noted. But documents have not shown that the June 2011 briefing Chu gave Obama about the loan program included any mention of that firm.

In the letter to Chu sent Tuesday, the lawmakers asked the secretary to clarify in accurate statements, to produce relevant documents the department has not released on the loan program and to testify before the Oversight and Government Reform Committee in September.

complicit in an organized effort to deceive Congress and hide the motives and process for decisions to use taxpayer funds to aid private interests," the lawmakers said in the letter.

The lawmakers also argue Jonathan Silver, the former head of the DOE loan program, asked for staffers' personal email addresses to discuss official business to avoid getting that correspondence subpoenaed in a possible investigation. The lawmakers said that is in violation of the Federal Records Act.

"Recently-obtained documents show DOE officials frequently used Yahoo! and Gmail to communicate about the loan guarantee program," the legislators said. "This use of non-government email accounts for official business may have violated the Presidential Records Act (PRA) and the Federal Records Act (FRA). The documents also show that testimony given to the Committee by current and former DOE officials, including you, was inaccurate, and may have been intentionally false."

The Washington Post reported Tuesday that Energy Department officials advised staffers not to use personal email addresses for office business because they could get subpoenaed. Days later, Solyndra went bankrupt.

Silver said in a statement to the Post on Tuesday that, "I intended to advise my DOE colleagues to use their official email for official purposes and personal email for personal purposes. It was never my intention to avoid the requirements of the Federal Records Act."

DOE responded to the charges with a statement to The Hill on Wednesday: "In the rare cases where the Department has found that some officials may have used their personal email accounts to discuss official business, the Department has treated those emails as official records and voluntarily provided them when requested by congressional investigators. For example, just last week, we voluntarily provided these emails to the Committee."

**Committee Reports**  
**112th Congress (2011-2012)**  
**House Report 112-462**

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**House Report 112-462 - ENERGY AND WATER DEVELOPMENT APPROPRIATIONS  
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**ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN  
PROGRAM**

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Appropriation, 2012:        \$6,000,000  
Budget estimate, 2013:     9,000,000  
Recommended, 2013        6,000,000

Comparison:

  Appropriation, 2012  
  Budget estimate, 2013 -3,000,000  
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# Energy Dept loans 'unjust enrichment'

August 9, 2012

1 Comment



**Joel Gehrzke**  
Commentary  
Writer

The Washington  
Observer



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Energy Department loans to green energy companies involved such large sums of money that the Treasury Department and White House Office of Management and Budget regarded them as "unjust enrichment" of the companies involved, new documents show.

Energy Secretary Steven Chu acknowledged Treasury's complaint as he proposed edits to a slideshow prepared for President Obama's review of the loan program.

"Treasury, and often OMB felt that the all the allowed [sic] subsidies, when added together, permitted to loan applicants too large a ROI. (Unjust enrichment)," Chu wrote in a June 24, 2011 email to his chief of staff, Brandon Hurbut, as released by the House Oversight and Government Reform Committee. "We could not even agree on how much one subsidy was worth."

Chu made this comment as he instructed Hurbut to inform Obama of the "interagency angst" — the conflicts between the Energy Department and other agencies — about the loan program.

"Many times, they felt that a 'better deal' could have been brokered by DOE and asked us to renegotiate," Chu also wanted Obama to know.

In September of that year, the loan program became an embarrassment to Obama when Solyndra — a company owned by one of Obama's campaign donation bundlers — went bankrupt despite receiving a \$535 million loan guarantee. The Inspector General of the Treasury Department found that Treasury Department's consultation on the Solyndra loan was "rushed" and "no documentation was retained as to how Treasury's serious concerns with the loan were addressed."

Taxpayers lost over \$500 million, as the Energy Department restructured the loan so that private creditors would be paid before the taxpayers.



# Chu Set to Tell Obama Loans Healthy Before Solyndra Failed

By Mark Drajem on August 09, 2012

U.S. Energy Secretary Steven Chu was set to assure President Barack Obama in mid-2011 that all loans in the department's clean-energy program would be repaid, just two months before the bankruptcy of recipient Solyndra LLC.

A draft prepared by Energy Department officials for Chu to brief Obama on June 27, 2011, also pushed to continue the program, slated to expire three months later, according to documents released today by the Republican-led House Committee on Oversight and Government Reform.

The e-mails show Chu seeking to defend the program amid objections by officials in the White House, Treasury Department and Office of Management and Budget. Chu told aides in an e-mail that the document for the briefing was "missing important information" and needed to explain: "Why did the loans take so long, and why was there so much interagency angst?"

Treasury and OMB officials worried that companies aided by the program were getting excessive subsidies in the loan terms, which allowed "Unjust enrichment," Chu wrote.

The documents "show how many people in the administration had serious doubts" about the program, Frederick Hill, a spokesman for the oversight panel, said today. Given the upbeat presentation, were the program's risks "kept away from the president?" he asked.

## 'Deep Trouble'

Solyndra, a solar-panel maker in Fremont, California that received a \$535 million U.S. loan guarantee, sought bankruptcy protection in September and fired its 1,100 workers. The Energy Department restructured terms of its loan in early 2011, as the company's finances began to wobble.

None of the information released today mentioned Solyndra. Chu told lawmakers in November that by June 2011 he was aware that Solyndra was "in deep trouble."

The U.S. program also backed Beacon Power Corp. ([BCONQ](#)), an energy-storage company that sought bankruptcy protection in October, with a \$43 million loan guarantee in August 2010. Abound Solar Inc., a solar-panel maker, shut after borrowing \$70 million from the U.S.

Congressional Democrats and the White House have repeatedly said the loans were made on the merits, and not as a result of political pressure. The latest e-mails further underscore that point, according to Damien LaVera, a spokesman for the Department of Energy.

more than 900,000 pages of documents we have voluntarily provided that we have said from day one: All decisions on loan applications were made in review by career officials and technical experts in the loan program," LaVerne

by Chu for Obama was scheduled because "at official events and political events in business community and Congressional members" who have "affiliation or for backing in the program, according to an e-mail to Chu on June 24 from H's chief of staff. "The president has likely heard a wide range of feedback on wants to know its status."

officials asked Chu to discuss two projects in particular, the Cape Wind Ass project off the coast of Nantucket in Massachusetts and USEC Inc. (USU)'s bid plant for uranium in Pikeon, Ohio. The governor of each state -- Democrat Dssetts and Republican John Kasich in Ohio -- had pressed Obama on the proje

lications are still pending with the government.

e reporter on this story: Mark Drajem in Washington at [e editor responsible for this story: Steve Geimann at](mailto:mdrajem@bloomberg</a></p></div><div data-bbox=)

# stically short of Obama

tration invested \$2.4 billion as part of its goal c  
d.

s than the Fisker Karma. In 2010, Fisker got a

low. It is sleek. It is sensuous," the Consumer Reports' video narrator says.

[20 comments](#)

too broken," the narrator adds as a clip of the Fisker Karma being towed on a flatbed airs.

It blamed the car's lithium ion battery, which happened to be made by another government loan recipient, A123 Systems.

got a \$240-million taxpayer loan. This year's first-quarter losses totaled \$125 million.

Industry's misfortunes have seriously undermined President Obama's goal

to replace our dependence on oil with biofuels and become the first country to have a million electric vehicles on the road by 2015.\* Obama January 2011.

to 4 to one million, the White House pinned its hopes on 11 models of electric vehicles -- including the Karma. Our CBS News investigation found six of the 11 -- Ford Focus, Ford Transit Connect, Fisker Nina Atlantic, Tesla Model S, Tesla Roadster and Think City -- either haven't made delivery or are already out of business.

aren't even close to the government's 2015 projections. For example, 36,000 Fisker Karmas and 505,000 Chevy Volts were supposed to be on the road. But current projections slash the Karma's 2015 number in half to 18,000 and put the Volt at one-eighth of the goal at 62,000.

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But these forecasts were very unrealistic, and history is showing that scaling an automobile company is much more difficult than many of these people thought," Craig Carlson, industry analyst and managing director of Carlson Group, Electric Vehicles, told CBS News.

[Print](#)

to told about the CBS News projection that only 300,000 electric vehicles would be on the road instead of the proposed 1 million, the Energy Department's David Sandalow said, "Well, let's hope that we can move faster. And if we don't hit that goal in 2015, let's hit it in 2016."

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News pointed out that the Energy Department predicted that Think City would produce 57,000 cars, but only built 263 and went out of business. Transit Connect was supposed to make 4,200 vehicles, but only built 500 and filed for bankruptcy.

Sandalow reminded that there were some successes.

General Motors sold more than 5,000 last year," he said. "And so did Nissan. Around the world this industry is exploding. Innovation investment. Any type of new industry is going to encounter some successes and some failures."

falling far short of a million, backers say electric cars will take off as people realize how much fun and cheap they are to drive. Just to be sure, GM wants to invest \$4.7 billion more tax dollars in electric vehicle incentives.

# The Bumpy Road to One Million Electric Vehicles

Estimated U.S. Supply of Electric Vehicles from 2011 through 2015

		2011	2012	2013	2014	2015	Total
Fisker Karma	DOE	1,000	3,000	10,000	10,000	10,000	34,000
	CBS	0	3,000	4,000	4,000	4,000	15,000
Ford Focus	DOE	0	10,000	20,000	20,000	20,000	70,000
	CBS	0	0	10,000	20,000	20,000	50,000
GM Chevy Volt	DOE	15,000*	120,000	120,000	120,000	120,000	595,000
	CBS	7,790	10,000	14,000	14,000	14,000	62,790
Nissan Leaf	DOE	200	800	1,000	1,000	1,000	4,000
	CBS	0	100	0	0	0	100*
Nissan Leaf	DOE	25,000	25,000	50,000	100,000	100,000	300,000
	CBS	6,000	20,000	25,000	25,000	25,000	101,000
Suzuki Nexion	DOE	1,000	1,000	1,000	1,000	1,000	5,000
	CBS	0	500	200	200	200	1,200
Tesla Model S	DOE	0	3,000	10,000	20,000	20,000	53,000
	CBS	0	5,000	20,000	20,000	20,000	55,000
Tesla Roadster	DOE	0	0	0	0	0	1,000
	CBS	0	0	0	0	0	1,000
Think City	DOE	2,000	2,000	10,000	20,000	20,000	57,000
	CBS	200	0	0	0	0	200
Ford Transit Connect	DOE	400	1,000	1,000	1,000	1,000	4,300
	CBS	0	0	0	0	0	500
Fisker*** Nova/Atlantic	DOE	0	40,000	40,000	75,000	75,000	180,000
	CBS	0	0	0	10,000	10,000	20,000
Total	DOE						1,222,300
	CBS						310,643

DOE (U.S. Department of Energy) estimates were made in February 2011. CBS times obtained actual production numbers where available, and consulted with manufacturers and industry analysts for projections through 2015.

\*Source has ceased production after 100 vehicles. Actual CBS time 3 full years to make a total of 300. Currently the company has no production schedule.

\*\*Ford Transit Connect had built approximately 500 total vehicles before being discontinued in March 2012.

\*\*\*Including only vehicles at all in completed cases (those obtaining funding, which had not yet happened at the time report).

credit: CBS)

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# Congressmen call for investigation of DOE's support for Centrifuge

6:39 AM, Jan 12, 2012 | [Comments](#)

A A

Written by  
[Chris Behnk](#)  
The Gazette staff

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**PIKETON --** Two congressmen are calling for an investigation into the Department of Energy's financial support for USEC's American Centrifuge Plant in Piketon.

U.S. Rep. Ed Markey, D-Mass., and U.S. Rep. Michael Burgess, R-Texas, sent a letter Tuesday to Gene Dodaro, comptroller general with the U.S. Government Accountability Office, outlining several concerns with the DOE's actions while USEC has been pursuing a \$2 billion loan guarantee for the project. Markey is a ranking member of the House Natural Resources Committee, while Burgess is a member of the Energy and Commerce Committee.

Some of the concerns mirror those Markey outlined in a January letter to Energy Secretary Steven Chu, including his belief the USEC technology never will be capable of successful commercial operation and his worries about the company's CCC-plus credit rating and financial situation.

## Related Links

[Piketon centrifuge deal reached](#)

In the letter to the GAO, however, Markey and Burgess go further, questioning whether some of the support offered comes in violation of the congressional act that privatized USEC during the late 1990s.

"We believe that this support is unlikely to result in the successful commercialization of USEC's domestic uranium enrichment technology, may have been and may continue to be undertaken in contravention of various laws and is additionally unjustifiable using assertions of this project's importance to national security," the pair wrote.

The DOE has remained reluctant to approve a \$2 billion loan guarantee for the project since rejecting the original application from USEC in 2009. It has, however, made other moves in terms of helping with research, development and demonstration funding and assuming liability for \$44 million in uranium tails -- a byproduct of the enrichment process -- to help the company free up money to

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In the letter, the congressmen dispute claims made by the DOE that the centrifuge project fills a national security need by being a key source of tritium required for the U.S. nuclear weapons program. Markey indicated he has requested reports from the Congressional Research Service to dispute the claim.

They also contend a recent uranium transfer announcement that helped keep USEC's Paducah, Ky., plant open for another year might have been done in violation of the USEC Privatization Act and that other DOE actions with regard to USEC might be out of compliance with other statutes, such as the National Environmental Policy Act and National Historic Preservation Act.

USEC received a show of support this past week when the House approved \$100 million in research and development funds for the 2013 fiscal year -- a figure the company hopes will jump to \$150 million when the House and Senate reconcile their proposals. A DOE spokeswoman also indicated this past week that "significant progress" is being made in the funding negotiations.

A representative from USEC indicated Tuesday the company does not want to directly address the congressmen's letter but did refer the Gazette to material posted on the company's website attacking Markey's frequent claims that USEC has received massive bailouts from the government.

## Wall Street

Polls show that Americans hold a very low opinion of Wall Street, and a damning public letter of resignation from a Goldman Sachs executive could only amplify that perception.



A Goldman Sachs sign is seen at the New York Stock Exchange. A Goldman Sachs executive director published a withering resignation letter in The New York Times, saying the investment bank is a 'toxic and destructive' place where managing directors referred to their own clients as 'muppets.'

(Brendan McDermid/REUTERS/File)

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By Ron Scherer, Staff writer  
posted March 14, 2012 at 4:47 pm EDT

New York

The opinion article in The New York Times has a simple headline: "Why I



Wall Street is not held in high regard so this is certainly not going to help," says Dennis Jacobe, chief economist at the Gallup Organization in Washington. "I think one of the things that is under-perceived on Wall Street and many of the financial sectors is how badly the financial crisis has hurt the reputation of everyone involved with Wall Street."

In a survey published last December, Harvard's Center for Public Leadership ranked Wall Street at the bottom in terms of American's confidence in its leadership. Congress, the media, and the White House all ranked higher.

Even long-time Wall Street observers agree that the perceptions are distinctly negative.

"Wall Street is not doing a very good job of explaining its importance to the economy and the good it does," says public relations executive Richard Torrenzano of the Torrenzano Group and a former spokesman for the New York Stock Exchange. "It helps corporations and new organizations raise money in a public environment, and that money is used to build new plants, create jobs, and really help the quality of life in which we live."

However much good Wall Street does is far overshadowed by the public's memory of 2008 financial crisis, which ultimately lead to the Great Recession.

"People will always be suspicious of banks," says Hester Peirce, a senior research fellow at the Mercatus Center at George Mason University and a former Securities and Exchange Commission official. "Part of the reason is that Main Street has suffered so tremendously, and people are still mad at the banks getting all the money they got."

At the height of the financial crisis, Goldman Sachs, like other large financial institutions, borrowed money from the federal Troubled Asset

“Many have worked there or wanted to work there,” says Ms. Peirce. “Goldman is elite but all the big banks have the reputation of people working very hard.”

Goldman officials are also politically active. In the 2012 cycle, Goldman Sachs, through its political action committee as well as individual contributions, is the top organizational donor to Mitt Romney’s presidential campaign, according to the Center for Responsive Politics/Open Secrets. Goldman Sachs and its officials have made 232 donations totaling \$426,780.

In a letter to their employees on Wednesday, Goldman Sachs executives Lloyd Blankfein and Gary Cohn disputed Smith’s characterization of the firm. “Needless to say, we were disappointed to read the assertions made by this individual that do not reflect our values, our culture and how the vast majority of people at Goldman Sachs think about the firm and the work it does on behalf of clients,” wrote the two men in a letter posted on the firm’s website.

The Goldman Sachs officials said that as far as they knew, Smith, whom they never identified by name, had not expressed any misgivings through any of their anonymous channels. “If an individual expresses issues, we examine them carefully and we will be doing so this case,” they wrote.

The Goldman Sachs letter to its employees also noted that two weeks ago, Goldman was named one of the best places to work in the United Kingdom, where Smith resides.

Critics of Goldman Sachs blame its problems on a fixation with short-term profits. “It is just this short term grab for profits,” says T.J. Faircloth, director of research at Boston-based Corporate Accountability International, which monitors corporate behavior. “We see this across the board with other corporations.”

electric vehicles, soared to a new high on Tuesday, only to make a partial retreat from those gains later in the week. The stock surged after the company announced a "breakthrough" in battery technology that will enhance the performance of its cells in extreme temperatures. But is this truly a "Hurrah" moment for the struggling company or a desperate attempt to restore its damaged image?

### Playing catch-up

A123 Systems hit the public market in 2009 when it debuted on the Nasdaq at \$13.50 a share in what was the largest stock offering of that year. Today, shares trade around \$1.30. But wishful investors are still hoping to find growth in this depressed name, despite its many setbacks. True, the battery maker has a handful of notable partners in the auto industry, including **General Motors** (NYS: GM), **BMW**, and electric carmaker **Fisker**. However, these contracts didn't come easily for A123. In fact, GM turned down the company's battery technology for its Chevy Volt vehicle in 2010 and only recently cut a deal with the battery maker for GM's new Spark electric car. But what about the companies that are starting to gain traction in the electric vehicle space - names like **Ford** (NYS: F) and **Tesla Motors** (NAS: TSLA)?

Automotive giant Ford brushed off bids from A123 Systems, instead awarding its battery contracts to Korean-based **LG Chem**. Many foreign battery-producers have a competitive advantage due to economies of scale, which means they can offer cells to major automakers at more affordable prices. This means A123 needs to ramp up production if it hopes to gain an edge in the industry. Unfortunately, I don't see this happening anytime soon.

### A stalled start

Tesla also gave A123 the cold shoulder when it paired with **Panasonic** for next-generation cell technology. In retrospect, this was a smart decision for Tesla. That's because A123 went on to pen a deal with Tesla's largest competitor, Fisker, which ultimately ended in a \$55 million recall of faulty lithium-ion batteries made for the automotive maker's Karma plug-in car.

More concerning is the fact that A123's defective batteries were produced at a time when the company had plenty of resources, including substantial capital from its stock offering a year earlier and \$249 million in federal stimulus grants. If the company can't

called "advancements" in battery technology.

At the company's shareholder meeting earlier this month, Musk said: "There are few industries with more BS than the battery industry. It's quite remarkable." Given these insights, I'm not convinced that A22J has stumbled upon the technology of cheaper electric cars, nor do I believe the company is headed for a turnaround on the news. Instead of investing on false hope, I invite you to discover *three stocks that are disruptive to manufacturing* in this free report from The Motley Fool. [Click here to get your free copy of the report titled: "The Future is Made in America."](#)

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Washington - Two U.S. senators want the Energy Department to answer new questions about the decision to loan \$529 million to luxury auto start-up Fisker Automotive Inc. and award \$249 million in grants to battery start-up A123.

Fisker didn't immediately comment on the letter.

In a letter to Energy Secretary Steven Chu on Monday, Sens. Chuck Grassley, R-Iowa, and Sen. John Thune, R-South Dakota, questioned why the Energy Department invested in Fisker when it is partly owned by the Qatar Investment Authority. "Why should the American taxpayer have to accept the credit risk of a company owned by a foreign government?"

In April, Fisker said it is delaying production of its next-generation family sedan and may not build the vehicle in Wilmington, Del., after suffering several setbacks with its first plug-in hybrid batteries.

Fisker's battery supplier, A123, said it will replace about 600 batteries at a cost of \$55 million after it said it found manufacturing flaws.

Grassley and Thune asked the Energy Department if the A123 recall will impact the government's decision to release the remaining portion of the A123's \$249 million grant under the stimulus. "Will DOE consider A123's ongoing financial struggles before distributing the rest of the grant?" the letter asked.

This month, Massachusetts-based A123 plans to hire as many as 400 workers in coming months for its manufacturing plants in Livonia and Romulus — a move tied to fulfilling promises made for state and federal subsidies.

A123 has about 780 employees in Michigan. New workers would be added at a 100-per-month pace beginning this month, the spokesman said.

If the company follows through with its plan, by fall it will have replaced the workers it lost late last year after a round of layoffs.



The senators sent a follow-up letter Energy Department again requesting that the Obama Administration explain its selection of Fisker.

"The response doesn't address the questions we asked regarding the accuracy of the department's statistics. That's cause for concern," Grassley said. "There's also a lot of discussion of the due diligence that went into making the loan but no evidence to show what that due diligence actually was. The riskiness of loans to companies that may or may not be able to pay them back deserves scrutiny."

Thune said "it's unfortunate that with millions of taxpayer dollars at stake the Obama administration will not answer our specific questions about the troubled Advanced Technology Vehicles Manufacturing program."

Energy Department spokesman Damien LaVera defended the program.

"The Department's loan program invests in advanced hybrid electric vehicles because they have the potential to significantly improve performance and fuel economy for American consumers. Our loans and loan guarantees have strict conditions in place to protect taxpayers, requiring borrowers to meet strict milestones and conditions prior to receiving loan proceeds. As has been widely reported, Fisker has experienced some delays in its sales and production schedule — which is common for start-ups," LaVera said.

"As Fisker works through those issues and incorporates lessons learned from the production of the Karma, the Department is working with Fisker to review a revised business plan and determine the best path forward so the company can meet its benchmarks, produce cars and employ workers here in America."

The Energy Department heralded the loan in 2010 when it said it would create 2,000 factory jobs at a former General Motors assembly plant in Delaware that Fisker bought at one GM's bankruptcy restructuring. Vice

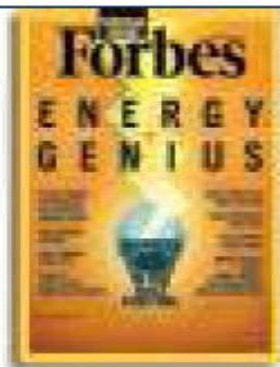
Mounds of magnesium chloride ring SQM's mine, creating the illusion of snow in the ultra-arid *salar*.

## FUEL SUPPLY



## ENERGY & GENIUS

The Lithium Gold Rush  
Saudi Arabia's Next Act  
Mr. Ethanol Fights Back  
Beaker Fuel  
A Mighty Wind/Carbon Hangover  
Shell's Radical Rig  
**Special Report:**  
**ENERGY+GENIUS**



Energy & Genius  
The Saudi Arabia of Lithium  
The Octopus

of Santiago may be the driest place on Earth, a wasteland strewn with salt-encrusted rocks that resemble cow pies. Annual rainfall on the *salar* (which in Spanish means "salt lake") rarely tops a few millimeters. The cloudless skies combine with the high altitude, 1.4 miles above sea level, to produce punishing solar radiation, capable of frying exposed flesh in minutes.

Humans would steer clear of the Salar de Atacama were it not for the precious brine that bubbles 130 feet below its surface. When first pumped from the ground, the brine looks like slushy, dirt-stained snow, of the sort that piles up on Manhattan sidewalks after a spring flurry. But when left to broil beneath the desert sun, the water in the brine slowly evaporates, leaving behind a yellowy mineral bath that could easily be mistaken

Since a vehicle battery requires a hundred times as much lithium carbonate as its laptop equivalent, the green-car revolution could make lithium one of the planet's most strategic commodities. The rush is on to find and develop new sources of it, a race that has mining companies scouring the globe's remotest corners, from the high-altitude deserts of Chile and Bolivia to the wilds of northern Tibet. The prospectors seem undeterred by the possibility that lithium's automotive heyday could be cut short by the cost and complexity of lithium-ion batteries. They prefer instead to focus on optimistic forecasts. Kevin McCarthy, a commodity chemicals analyst at **Bank of America** (nyse: [BAC - news - people](#)), sees the potential for double-digit annual sales growth for lithium carbonate at least through 2012.

Such rosy short-term predictions have investors swooning over Sociedad Química y Minera de Chile S.A., or SQM, the Chilean fertilizer and mining company that produces nearly a third of the world's lithium carbonate and whose leather-skinned employees brave the Salar de Atacama for the sake of gadget lovers. In the past three years the Big Board-traded shares of SQM have climbed from \$11 to \$22. In the first six months of 2008 SQM reported a profit of \$191 million, up 103% from a year earlier, on sales of \$787 million, up 41%.

**[Comment On This Story](#)**

SQM is controlled by Julio Ponce Lerou, who heads Pampa



extracting brine cheaply from a Tibetan salar. This operation has already had an impact. When SQM's lithium revenue fell 10% in the first quarter of 2008, the company blamed "the growing presence of Chinese producers."

SQM's lithium fields are ringed by blindingly white knolls of magnesium chloride, a salty substance that looks suitable for skiing. These magnesium hills, the by-products of a neighboring potassium chloride plant, provide an excellent vantage point from which to view the rectangular lithium ponds that stretch out toward the dull-brown Andes. From atop the tallest of these snowy mounds, one can see dozens of rectangular man-made ponds, each one bigger than a hockey rink.

The plastic-lined ponds, arranged in neat grids, are filled with brine in various states of evaporation. Ponds awash in the freshest brine are tinged a brilliant turquoise; others, nearly ready for harvest, are richly yellow around the edges. Scarcely any human intervention is needed; the sun does all the work. After the brine reaches a lithium concentration of 6%, which takes not quite a year, it is pumped into tanker trucks and driven three hours west to a plant near the Chilean coast. There the solution is purified and dried until all that remains are crystals of lithium carbonate. These crystals are then granulated into the finished product coveted by battery manufacturers, a fine white powder resembling cocaine.

The solar energy keeps SQM's costs to an estimated \$1,260 per ton of lithium carbonate. It sells that ton for up to \$12,000.

Foote Mineral, which owned the Kings Mountain mine, hoped to get the jump on the lithium boom by expanding to northern Chile, where desert brines were rumored to contain vast, cheaply obtainable amounts. In 1975 Foote signed an agreement with the Chilean government, then run by Pinochet, to explore the Salar de Atacama. Nine years later Foote began extracting lithium from a sliver of the lake bed. (The Foote subsidiary that worked the salar is now owned by Rockwood Holdings of Princeton, N.J., which continues to produce lithium on the tract.)

Newly wise to the desolate salar's value, Pinochet's government decided to auction off the rest of the region's mining rights. The American firm Amax (now part of Freeport-McMoran) won the bidding but didn't develop the property. In 1992 Amax sold its rights to a former arm of the Chilean government that had recently been privatized and handed over to Pinochet's then son-in-law, Julio Ponce Lerou.

Lithium's boom had begun in earnest just a year before, when **Sony** (nyse: [SNE](#) - [news](#) - [people](#) ) launched its first generation of lithium-ion batteries for consumer electronics. By the end of 1991 Sony was making 100,000 a month. SQM began selling lithium carbonate in late 1996, and within a matter of weeks, lithium carbonate prices fell by a third, to \$2,000 a ton. The American lithium industry vanished overnight.

**Sidebar:**

[White Gold](#)

## recall of plug-in hybrid Karma

Associated Press 

Automotive is expanding a recall of its 2012 plug-in hybrid Karma because of potential fire risk. The recall covers 150 of the \$100,000 cars in December. It said improperly installed hose clamps in the battery pack could lead to starting a fire.

The recall, 10 of which it believes were delivered to customers.

The manufacturer says no incidents have been reported by customers or retailers. The company

is currently held.

The National Highway Traffic Safety Administration investigated Chevrolet Volt battery fires earlier this year. It said the fires were caused by faulty additional gasoline engines.

# The Corner

the one and only

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## Green Energy Loans: Beyond the Solyndra Drama

by [Veronique de Rugy](#)

[Comments](#)

June 22, 2012 3:47 P.M.

[testified](#) before Congress earlier this week about the Section 1705 loan guarantee program of the Department of Energy. That's the loan program that guaranteed \$53 billion in loans for the now-bankrupt energy company Solyndra. I came strongly against these DOE loan-guarantee programs because, among other reasons, they introduce distortions to market signal. For the record, I think all loan guarantee programs by the government should be abolished — not just energy.

It's interesting to look at the flow of Department of Energy [loans](#) to evaluate who receives them and whether the department is meeting its stated policy objectives, such as promoting new start-ups or companies that have a hard time accessing capital, and encouraging the creation of green jobs.



Since 2009, Department of Energy has guaranteed \$34.7 billion in loans, 46 percent through the 1705 loan program, 30 percent through the 1703 program, and 14 percent through the Advanced Technology Vehicles Manufacturing loan program.

The data show that:

- 26 projects were funded under the 1705 program, with guarantees of roughly \$16 billion in total.
- Some 2,378 permanent jobs were claimed to be created under the program. This works out to a taxpayer exposure of \$6.7 million per job.
- The recipient of the most 1705 loans is NRG Energy, Inc. NRG Energy received a \$3.8 billion guarantee (23.7 percent of the overall amount guaranteed under 1705).
- Four companies received 64 percent, or \$10.3 billion, of the total amount guaranteed under the 1705 program.
- 90 percent of loans went to subsidize large and well-established companies

In most cases it's not start-ups, like Solyndra, that received the loan guarantees, but large established companies that are likely able to get access to large amounts of capital. It wouldn't be under the extremely favorable terms that the government guarantee allows them to get, but they would get capital. Also, they would likely have to put down more equity relative to debt than they do with the 1705 loan program. In other words, the program encourages these large companies to leverage more than the open market would allow them to. I thought we had learned the hard way that too much leverage isn't a good thing, but apparently not.

FY 2011 [sic] the com- pany also secured \$647.7 million in loan guarantees to subsidize the sale of solar panels to solar farms abroad.

More troubling is the fact that some of the Ex-Im money went to a Canadian company named St. Clair Solar, which is a wholly owned subsidiary of First Solar. St. Clair Solar received a total of \$192.9 million broken into two loans to buy solar panels from First Solar. In other words, the company received a loan to buy solar panels from itself. Incidentally, First Solar also received a \$16.3 million loan from the government in 2010 to expand its factory in Ohio.

But then there is the case of NRG Energy. The company received a \$3.8 billion guarantee and, throughout different companies, received 39 different grants under the Recovery Act. It is also scheduled to receive \$431 million from the Department of Treasury along with multiple different benefits at the state and local level.

Examples of companies benefiting from multiple assistance programs initiated during this period abound.

While there is no doubt that the deals are lucrative for the companies involved, taxpayers have a lot to lose. Further, double-dipping provides evidence that businesses will be tempted to steer away from productive value creation for society and instead work on narrowly serving political interests for financial gain.

My testimony is [here](#), and here is [the video](#). I was testifying next to four CEOs, including the head of NRG Energy. There was also serious questioning about why Congentrix, a wholly-owned subsidiary of financial giant Goldman Sachs, needs the help of government and political influence.

bankruptcy on April 2.

- Energy Conversion Devices, a solar-laminate supplier, received a \$13.3 million stimulus tax credit in January 2010 to update its factory in Auburn Hills, Mich., and to hire some 600 people. ECD pleaded Chapter 11 bankruptcy on Valentine's Day.
- Ener1 received a \$118.5 million DOE stimulus grant in August 2009. Vice President Joe Biden traveled to Greenfield, Ind., to tour Ener1 on January 26, 2011. "Here at Ener1," Biden said, "we're going to harness electricity and bring it to the world, like Edison did more than a century ago." The electric-car-battery company filed for Chapter 11 bankruptcy on January 26, 2012, exactly one year after Biden's visit.
- Aptera Motors aspired to build three-wheel electric cars. DOE offered it a \$150 million ATVM loan, conditioned on Aptera's raising \$150 million in non-government capital. Aptera never convinced private investors to finance glorified bicycles. So, on December 2, CEO Paul Wilber announced that "after years of focused effort to bring our products to the market, Aptera Motors is closing its doors, effective today."
- Massachusetts-based Beacon Power Corp. received a \$43 million loan guarantee in October 2010 — DOE's second such subsidy. The energy-storage concern declared Chapter 11 bankruptcy on October 30, 2011.
- Solyndra, the most notorious of Obama's green-energy bubbles, filed for bankruptcy on August 31, 2011. Taxpayers are liable for this solar-panel maker's \$535 million in loan guarantees — the first that DOE made under Obama.

In death, Solyndra has proved anything but green. As San Francisco's KCBS-TV reported in April, Solyndra's facility in Milpitas, Calif., features metal drums marked "hazardous waste." Cadmium, lead, unidentified black chemicals, and other toxins haunt the premises. A company called iStar said it would remove these poisons — as soon as Solyndra pays its bills.

Solyndra also discarded still-valuable solar-panel components, even though selling them could have generated capital to reimburse its creditors, including America's taxpayers.

June 2, 2012

# Lawsuit Shakes Foundation of a Man's World of Tech

By DAVID STREITFELD

Palo Alto, Calif.

MEN invented the Internet. And not just any men. Men with pocket protectors. Men who idolized Mr. Spock and cried when Steve Jobs died. Nerds. Geeks. Give them their due. Without men, we would never know what our friends were doing five minutes ago.

But are these men trapped in the past even as they create the future?

That's the debate that has sprung up here since Ellen Pao, a junior partner in her early 40s at the distinguished venture capital firm of Kleiner Perkins Caufield & Byers, filed a sexual discrimination lawsuit against the company and her colleagues there.

The complaint, laced with accusations of professional retaliation after spurned sexual advances, has riveted Silicon Valley, whose venture capitalists generally prefer media attention for their businesses and deals, not themselves. Instead of talking about the New New Thing, people are discussing an old, old problem. And they are taking sides.

Although the accusations have yet to be heard in court, even some of Ms. Pao's critics concede that she is exposing an uncomfortable truth about Silicon Valley: starting tech companies in 2012 is still a male game, and so is funding them.

Her complaint goes further. It depicts venture capitalists here as a group of 21st-century men who may be hard at work building the 22nd century but, when it comes to dealing with women in the workplace, are stuck firmly in the caveman era — or at least in the 1950s. It's a portrait that many women in tech find all too familiar.

"You talk to any woman in technology and she will have a personal story or know a story where she felt conscious of her gender in subtle or significant ways," said Kathy Savitt, 48, the chief executive of the social commerce start-up *Lockerz*. Sometimes, she said, it's as mild as realizing "I'm the only chick in the room." Other times, "it's a lack of relevance, a feeling



does not surprise Ms. Savitt. This place runs into trouble with women on a regular basis, most memorably in recent years when the C.E.O. of Hewlett-Packard resigned after inappropriate conduct with a former reality TV actress who was working for him.

Still, Ms. Pao's lawsuit has injected talk of sexual politics into a conversation that generally sticks to money and eyeballs and business plans, monetization and enlightenment of the masses. Men in Silicon Valley may not behave any worse than men anywhere else, but people here like to think it's all a meritocracy.

The shock really stems from where the scandal is taking place. Ms. Savitt knows Kleiner well; the firm is financing Lockerz. She cannot comment on the suit but expresses her deep admiration for the Kleiner crew. The firm is one of the few exceptions to the venture world's disinterest in hiring women. A quarter of its 50 partners are female.

That fact fits awkwardly with the lawsuit's claim that one male executive, Randy Komisar, told Ms. Pao that women would never succeed at Kleiner "because women are quiet." Another male executive, Chi-Hua Chien, is quoted in the suit saying women were not being invited to a big-deal dinner because they would "kill the buzz."

Neither Ms. Pao nor any of the parties mentioned in the lawsuit would comment on it.

Kleiner is an unlikely defendant for another reason. It is particularly conscious of its image. "As Kleiner Perkins sees it, the Florence of the Renaissance had the Medicis, the American steel industry had the House of Morgan, and Silicon Valley in the late 20th century has Kleiner Perkins," David A. Kaplan wrote in "The Silicon Boys" in 1999.

That was when the firm was at its peak, the money behind Netscape, Genentech, Amazon and a little start-up called Google.

"If you believe every allegation in the complaint, it's appalling and an important window into how the valley works," Mr. Kaplan said. "But I'm somewhat skeptical. The clichés you hear in the valley are about the pranks, the obsessiveness, the Foosball tables. You don't really hear about randiness and mistreatment of women. That doesn't prove it's not there, but that's not the lore."

Of course, it depends on your perspective. Sandy Kurtzig was one of two female engineering students in her class at Stanford in the late 1960s and is still in the game, with a start-up

"I am shocked there aren't more women in high positions in Silicon Valley," Ms. Kurtzig said. "I always thought the world was going to be gender-blind."

KLEINER'S headquarters in an office park near here does everything possible to minimize the moment. A low-slung building that is obscured if not overwhelmed by vegetation, it looks like the home of a laid-back research center for the promotion of world peace. The parking lot has one Porsche, but otherwise Lexus is about as fancy as it gets. Venture capital wants to change the world without drawing attention to itself.

While Kleiner has seen its magic touch somewhat dimmed of late — it came very late to the money fountain that was Facebook — a lawsuit like this could permanently kill the buzz. Already, it has eclipsed the mid-May announcement of the firm's 15th fund, a \$525 million investment pot. Which, despite all those women at Kleiner, is being run by one woman and nine men.

Ms. Pao, who came to Kleiner with the dream of helping direct such a fund, graduated from Princeton with a degree in electrical engineering. She got a law degree from Harvard and worked for Cravath Swaine & Moore for two years doing international deals. She returned to Harvard for a business degree and worked for a variety of tech companies, including BEA Systems and Tellme Networks. Her geek cred is pretty unassailable.

In 2005, she came to Kleiner as a junior partner, working as chief of staff to John Doerr. He was one of the main evangelists who shaped the modern Internet, a geek's geek who became a billionaire. But, unlike many here, money never seemed his primary goal.

Ms. Pao's role was to help Mr. Doerr identify investments, interview executives and write speeches.

According to the suit, her troubles began almost immediately when another junior partner, Ajit Nazre, made inappropriate sexual advances. Eventually, the complaint says, Ms. Pao "succumbed to Mr. Nazre's insistence on sexual relations on two or three occasions." When she put an end to the relationship, it says, he "started a consistent pattern of retaliation against her." This went on for five years, it contends.

The harassment part of the suit pales in comparison to the retaliation part, which blends into an allegation of a general effort to keep women in their place. Kleiner, Ms. Pao's lawsuit says

men.”

The firm, which has about 80 employees here with a handful more in China, is accused of failing to act when complaints of sexual harassment or discrimination were made. Ms. Pao says women are excluded from meetings and discussions. The firm fails to provide opportunities for visibility and success inside and outside the firm for women as compared with men, the complaint says.

Kleiner supporters have some questions, even if they do not necessarily wish to go on the record: Why did a talented woman stay for so long at a place that was treating her so poorly? Also, how is it that you can't remember how many times you slept with someone who harassed you?

And how is it possible that Mr. Doerr never listened to her assertions of retaliation and discrimination? Mr. Doerr declined to comment, but his supporters have an answer. The first that anyone at the firm knew of her concerns, they say, was just five months ago — at which point Kleiner promptly brought in a lawyer to investigate. He found no basis to her complaints, the firm says.

If you take the Kleiner line, Mr. Nazre was less the instigator than the victim; he had a consensual affair with Ms. Pao and now is being portrayed as a harasser. The suit says he left the firm after the investigator's report at the beginning of the year, implying a cause and effect. People inside Kleiner say he left of his own volition before the inquiry began.

Mr. Nazre has not surfaced since the lawsuit was filed. A voice-mail message box belonging to him was full late last week. He did not answer messages through his LinkedIn page, which says he still works at Kleiner.

Kleiner supporters said that the firm made repeated efforts to achieve a resolution, but that the parties could not come to terms. The lawsuit was filed in San Francisco Superior Court on May 10, but was not reported in the news media until two weeks later.

BOTH sides in the case are bringing out high-profile legal firepower. Ms. Pao is represented by the employment law specialist Alan B. Exelrod, who won a significant victory against the law firm of Baker & McKenzie in a harassment case. Kleiner is represented by Lynne C. Hermle, an equally celebrated employer defense lawyer. Ms. Hermle successfully defended

Ms. Helme has until 6 p.m. 13 to file a response to the accusations. The complaint has no merit whatsoever," she said. Mr. Exelrod declined to comment.

Ms. Pao is known to the small world of venture capitalists here. Her husband, Alphonse Fletcher Jr., whom she married after the physical relationship with Mr. Nazre ended, is not. But he is well known in New York and has become the object of considerable fascination in the tech world.

Mr. Fletcher, known as Buddy, has recently been in the news for suing the Dakota, the apartment building on Central Park West, for not letting him buy a fifth unit. Mr. Fletcher, a former president of the Dakota board, said he needed the new rooms, which adjoin his main apartment, to accommodate his growing family that includes not only Ms. Pao but also their young daughter.

Mr. Fletcher, who is black, is accusing the Dakota of racial discrimination and defamation. The Dakota responded to the suit by saying its concerns were not racial but financial: it did not think that Mr. Fletcher could afford another apartment.

An account of the suit in The New York Times noted that in 2003 and 2006, workmen on Mr. Fletcher's Connecticut estate had accused him of sexual harassment. Mr. Fletcher denied the allegations, which were settled out of court. He declined to respond to a request for comment.

Before the marriage, Mr. Fletcher had lived at the Dakota with his longtime boyfriend, Hobart V. Fowlkes Jr.

"I must admit that I do not know Ellen as intimately as I obviously know Buddy," Mr. Fowlkes wrote in an e-mail. "However, my interactions with Ellen have never been anything but positive."

He added that he was "extremely touched" that they asked him to be the godfather of their daughter, "given the circumstances."

FORGET about the Facebook I.P.O. For some entrepreneurial women, Ms. Pao's lawsuit was the more significant event of the last month.

"When the news broke, we stopped what we were doing and were, like, 'Whoa,'" said Claire Mazur, a founder of Of a Kind, an e-commerce start-up based in New York

definitely harder to raise money from investors who don't have as much experience with retail and fashion," she said. "That kind of personal connection can be key to getting funding."

Or, as another e-commerce entrepreneur put it, "You're trying to explain to a man why shopping is fun."

Speaking only on the condition of anonymity — you never can tell whom you're going to be asking for money — some entrepreneurs are more despairing.

One woman said she interviewed at a top venture firm in 2000 after coming out of business school. "I was told point-blank that they once had a woman and it didn't work out," she said. "That was 12 years ago and they haven't had a single woman partner since."

Kleiner, whatever its problems, actually hired women. So this executive worries that the message of the case to others will be: We were right to stick with the guys. She said she just got off the phone with a venture-backed chief executive who found out she was pregnant. The board was already moving to dump her.

The cold stats: Women make up just 9.1 percent of the board members of Silicon Valley companies, compared with 16 percent of Standard & Poor's 500 companies, according to [Spencer Stuart](#), the headhunting firm. The National Venture Capital Association estimates, based on a recent survey, that only about 11 percent of investing partners at venture firms are women.

The ratio is not much higher for the entrepreneurs these firms back. In 2009, only 11 percent of companies that received venture backing had a female C.E.O. or founder, according to [Dow Jones VentureSource](#).

IT'S a retro state of affairs, although that isn't stopping Silicon Valley from protecting its own, which means Kleiner. One Kleiner-backed woman said in an interview that she didn't think much of Ms. Pao's suit. "Anybody can sue anybody for anything, right?" Then she called back and said that she had now read the blogs and news articles about it, that the whole thing was a mess, that she was speaking out of ignorance and could she just stay out of it?

Few lawsuits like this make it to a jury, but Ms. Pao's case might be an exception. And some on both sides want the case to go to trial. Any settlement by Kleiner could look like an acknowledgment of guilt. The firm, meanwhile, is playing as aggressive a defense as it dare

former Valleywag gossip columnist and a longtime Silicon Valley insider, said in this way: "If a tenth of this is true, Kleiner Perkins has a

reputation that the firm are certainly not united behind Ms. Pao. One of the firm's most senior general partner, took the unusual step of issuing a statement on the firm's behalf, praising the firm because of its diversity and have excelled here as well as in other areas. 1. "Everyone has an equal opportunity to succeed" at Kleiner Perkins. I repeated those points.

Mr. Pao posted a lengthy message on the firm's Web site, saying that he would rigorously defend our reputation." He did not mention his name. Instead, he said, "I would like to announce that it was hiring a new female partner."

*Michael O'Connell and Jenna Wortham contributed reporting.*



Tyler Hicks/The New York Times

A bleak Ghazni Province seems to offer little, but a Pentagon study says it may have among the world's largest deposits of lithium.

By **JAMES RISEN**

Published: June 13, 2010

**WASHINGTON** — The United States has discovered nearly \$1 trillion in untapped mineral deposits in [Afghanistan](#), far beyond any previously known reserves and enough to fundamentally alter the Afghan economy and perhaps the Afghan war itself, according to senior American government officials.

## At War

Notes from Afghanistan, Pakistan, Iraq and other areas of conflict in the post-9/11 era.

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## Multimedia



Graphic

[Minerals in Afghanistan](#)

The previously unknown deposits — including huge veins of iron, copper, cobalt, gold and critical industrial metals like [lithium](#) — are so big and include so many minerals that are essential to modern industry that Afghanistan could eventually be transformed into one of the most important mining centers in the world, the United States officials believe.

An internal Pentagon memo, for example, states that Afghanistan could become the “Saudi Arabia of lithium,” a key raw material in the manufacture of batteries for laptops and BlackBerrys.

The vast scale of Afghanistan's mineral wealth was

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**Readers' Comments**

The value of the newly discovered mineral deposits dwarfs the size of Afghanistan's existing war-bedraggled economy, which is based largely on opium production and narcotics trafficking as well as aid from the United States and other industrialized countries. Afghanistan's gross domestic product is only about \$12 billion.

"This will become the backbone of the Afghan economy," said Jalil Jumriany, an adviser to the Afghan minister of mines.

American and Afghan officials agreed to discuss the mineral discoveries at a difficult moment in the war in Afghanistan. The American-led offensive in Marja in southern Afghanistan has achieved only limited gains. Meanwhile, charges of corruption and favoritism continue to plague the Karzai government, and Mr. Karzai seems increasingly embittered toward the White House.

So the Obama administration is hungry for some positive news to come out of Afghanistan. Yet the American officials also recognize that the mineral discoveries will almost certainly have a double-edged impact.

Instead of bringing peace, the newfound mineral wealth could lead the [Taliban](#) to battle even more fiercely to regain control of the country.

The corruption that is already rampant in the Karzai government could also be amplified by the new wealth, particularly if a handful of well-connected oligarchs, some with personal ties to the president, gain control of the resources. Just last year, Afghanistan's minister of mines was accused by American officials of accepting a \$30 million bribe to award China the rights to develop its copper mine. The minister has since been replaced.

Endless fights could erupt between the central government in Kabul and provincial and tribal leaders in mineral-rich districts. Afghanistan has a national mining law, written with the help of advisers from the [World Bank](#), but it has never faced a serious challenge.

"No one has tested that law; no one knows how it will stand up in a fight between the central government and the provinces," observed [Paul A. Brinkley](#), deputy undersecretary of defense for business and leader of the Pentagon team that discovered the deposits.

At the same time, American officials fear resource-hungry China will try to dominate the development of Afghanistan's mineral wealth, which could upset the United States, given its heavy investment in the region. After winning the bid for its Aynak copper mine in Logar Province, China clearly wants more, American officials said.



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er with Pakistan that have had some of the most int  
ar against the Taliban insurgency.

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on June 14, 2010, on page A1

**elines e-mail newsletter.**

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## THE \$25 BILLION AUTO LOAN PROGRAM

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### VALUABLE INFORMATION FOR OESA MEMBERS ON THE \$25 BILLION AUTO LOAN PROGRAM

**Posting Date**

06.23.09

**Press Release****Administration Awards First Three Auto Loans for Advanced Technologies**[CLICK HERE](#)**1) Changes to Application Process for Dept. of Energy's ATVMP**

Later on Friday, March 6, 2009, the Department of Energy published a [press release](#) indicating that they were changing the application process in order to expedite review and approval of Advanced Technology Vehicle Manufacturing Incentive Program loans (a.k.a. EVSA Section 30E).

The DOE stated the department will consider and evaluate substantially complete applications as well as when they are submitted. DOE also indicated they will make decisions and issue loans at any time. DOE said, "Applications submitted after the first tranche deadline (December 31, 2008), will be treated in the same manner as applications submitted during the first tranche period."

**SUBMITTED ACTION:** If it is requested, therefore, that those companies planning to submit by the originally scheduled March 31, 2009 "second tranche" deadline, you should be advised to submit as soon as your application is **substantially complete** (as described in [10 CFR Part 671](#)).

**2) Summary of MEMA meeting with DOE Official**

On Thursday, March 5, 2009, Amy Wilson met with DOE Official Lashley Stewart, who manages the ATVMP. During the meeting several topics were discussed, including the recent grant funding and an update on the first tranche applications.

**Advanced Batteries & Components Grant** - About 5% of the grant funds are for advanced batteries and about 5% are for related components. DOE indicated these projects are a priority. DOE will issue a grant announcement. MEMA expects a final grant announcement very soon and will notify members as soon as it becomes available.

**Update on First Tranche Application** - There are 25 applications left. 20 of those are from suppliers. It was made clear that suppliers will receive some loan program funding. Also, if interest arises a project is considered a "breakdown," NEPA will be less problematic. With a substantially complete application most will have the required documents as described in the Incentive Fund Rule.)

DOE also indicated that a change in the application process was coming (see item 1).

**Min. Funding for ATVMP** - MEMA will consider pursuing legislative budget vehicles (or what) to obtain more funding for the ATVMP. This issue is one of several MEMA will address during its [9th Annual Legislative Summit](#) (April 29-30 in DC) for part of the process and register today. [Click on link to get more information.](#)

OESA and MEMA will have coordinated information on the loan program. **Although there is no official application form**, the list and links below should be valuable to members that are looking to apply for the loan program.

1. DOE ATV Manufacturing Loan Program Policy Meeting  
December 9, 2008

**DOE Minutes**

2. DOE ATV Manufacturing Loan Program Policy Meeting  
December 1, 2008

## Panel unveiling docs on DOE aid recipients



By **ANDREW RESTUCCIA** | 6/19/12 10:11 AM EDT

An Energy Department employee used a private email address to send confidential information to a company that went on to get a \$1.4 billion partial loan guarantee from the agency, according to one of a series of documents that House Republicans plan to highlight Tuesday.

The documents are the latest effort by the House Oversight and Government Reform Committee to show that corporate coziness in DOE's clean energy programs has gone beyond Solyndra.

The email (<https://www.politicopro.com/f?f=9927&inb>) from June 3, 2011, obtained by POLITICO, was sent by Peter O'Rourke, a contractor who served as an adviser to DOE's loan office, to Drew Torbin, vice president of renewable energy for the industrial real estate company Prologis, and Jonathan Plowe, an official at Bank of America Merrill Lynch.

"please do not send beyond two of you. this is very important," wrote O'Rourke, using a private Gmail account. "feel free to use the concepts we articulate in your own words, if you don't already have this in your message."

The email included a 13-page presentation outlining the Energy Department's messaging on Prologis's application for a \$1.4 billion guarantee to finance 733 megawatts of rooftop solar generation in 28 states and Washington, D.C., through what the company calls Project Amp. The presentation was marked "confidential treatment requested."

DOE officials said the documents reveal nothing new.

"The department asking a company to verify information about its application or sending them information about their own project is hardly unusual or surprising," the Energy Department said Monday night. "While the documents simply rehash old issues the committee has already covered, they do offer even further proof that the department's decisions about loans were based on a thorough, technical consideration of the facts and merits of the case ? and nothing else."

The department approved the conditional loan guarantee for Project Amp later in June, then finalized the agreement in September. Prologis has said the project is funded with equity from NRG Energy and Prologis as well as debt financing through Bank of America.

POLITICO also obtained emails from Sept. 21, 2011 (<https://www.politicopro.com/f?f=9928&inb>) — also uncovered by committee Republicans — that appear to show Prologis and Energy Department officials discussing changes to a document certifying that the company had begun construction. The document alludes to the fact that the project's first phase was originally intended to use Solyndra's solar equipment, before Solyndra went bankrupt last year.

.politico.com/story/energy/?id=8536) — saying that, to the contrary, he  
d reliance on Solyndra because "I didn't know how long Solyndra wo  
source said Monday that the new documents "show that DOE officials  
company access to pre-decisional information and encouraging the  
: are expected to question Prologis co-CEO Walter Rakowich about t  
( <http://oversight.house.gov/hearing/the-obama-administrations-green-energy>  
any!) Tuesday.  
ed to include testimony from Cogentrix CEO Robert Mancini, NRG C  
udit Bronicki and Veronique de Rugy, senior research fellow at the M  
ty.  
d on POLITICO Pro (<http://www.politicopro.com>) at 8:51 p.m. on June  
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Tags: Goldman Sachs, C&I, career management, Wall Street jobs,

By [Melanie Rodier](#)  [@mrodier](#)

JUNE 24, 2011

As jobs decline on Wall Street, banks like Citi and Goldman are actively recruiting veterans of the Iraq and Afghanistan wars, according to Bloomberg News.

Citi and Goldman, together with Credit Suisse, Bank of America and Deutsche Bank were recruiting at a job fair hosted yesterday by the U.S. Chamber of Commerce for service personnel aboard the USS Intrepid, a museum in the Hudson River, Bloomberg said.

Last year, WS&T reported that Wall Street firms and hedge funds were actively [recruiting](#) former CIA and military intelligence officers in a bid to boost their security and risk management practices by looking for expertise outside the corporate world.

Former Afghan and Iraq war vets with intelligence operations experience are particularly in demand since they can bring new technology and techniques to research and analysis, Michael Bagley, founder and president of Washington D.C.-based financial intelligence firm, The OSINT Group, told WS&T.

From Bloomberg:

Former Marine Corps captain Christopher Perkins, now head of Citigroup's derivatives operation in the Americas, said he dealt with budgets and negotiation while stationed in Japan, his first education in business practices. Citigroup hired him based on skills obtained in the military, not to burnish the firm's image, he said.

"It's not about charity work," Perkins said. "It's about making the firm better."

Still, despite their skills the road to civilian work in the financial

...e, competition among vets themselves vying  
ng up: Unemployment among veterans rose  
from 10.6 percent a year ago, Bloomberg s

resident Barack Obama's announcement that  
w 33,000 troops from Afghanistan by Septem  
ong veterans looking for civilian jobs will so  
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## E-mails about clean-energy loans provide new details on White House involvement

By [Carol D. Leonnig](#) and [Joe Stephens](#), Published: August 8 | Updated: Thursday, August 9, 7:23 AM

President Obama's staff arranged for him to be personally briefed last summer on a loan program to help clean-energy companies, two months before the program was thrust into headlines by the collapse of its flagship, the solar company [Solyndra](#), records show.

About the same time, then-White House Chief of Staff [William Daley](#) resolved a dispute among administration officials over another project in the program, clearing the way for a \$1.4 billion loan, according to documents and sources familiar with the situation.

The documents, a series of e-mails among Energy Department staff members involved in managing the program, provide new details about the level of White House involvement in the controversial initiative. White House officials have said in the past that final decisions about which companies would receive the loan guarantees were made by career staff members at the Energy Department, not political appointees.

Administration officials said Wednesday that the e-mails show that the White House involvement was appropriate and that there was no pressure on agency officials.

That loan program, a signature piece of the Obama administration's effort to stimulate the economy, has become a centerpiece in this week's presidential campaign. Republicans have charged that the program

The documents, provided to The Washington Post by Republican investigators for the House Oversight and Government Reform Committee, show that White House aides asked Energy Secretary Steven Chu to deliver a June 27, 2011, presentation to the president on the status of the loan program. The interest in a presidential briefing came as other senior administration figures were challenging parts of the program and debating whether the Energy Department was cutting deals that gave "unjust enrichment" to private companies.

An Energy staffer explained that the president "wants to know its status" so he could be prepared when the loan program came up "at official events and political events where he interacts with [the] business community and Congressional members." The e-mail from the department's chief of staff, Brandon Hurlbut, went on to say that many people attending such gatherings "have some affiliation or interest in the numerous applications received that involve substantial funds."

The documents do not indicate whether the presidential briefing took place as scheduled and, if so, whether Obama offered guidance on the program's future.

### **'A right to know'**

On Wednesday, Rep. Darrell Issa (Calif.) and other Republican members of the House Oversight and Government Reform Committee wrote to Obama requesting a "full and complete" explanation of his involvement in the issue and seeking additional internal documents, including a list of all private individuals with whom the president met to discuss loan projects.

"The American people have a right to know the level of involvement you and other senior White House officials had in the loan guarantee program," the committee members wrote. "Your interactions with business leaders at political events affected decisions to give billions of taxpayer dollars in loan guarantees to green energy companies."

Energy Department spokesman Damien LaVera said that the collection of internal documents provided thus far to congressional investigators "validates what we have said from day one: All decisions on loan applications were made on the merits after careful review by career officials and technical experts in the loan program."

Rather than revealing any White House pressure to give money to certain companies, the new e-mails show that "Department of Energy officials appealed to the White House to resolve legitimate disagreements between agencies" so the applications could move forward, LaVera said.

White House spokesman Clark Stevens added that "internal debates about complex programs like this should be expected, and the White House playing a role in assisting interagency discussion surrounding that process is entirely appropriate."

Solyndra, a Silicon Valley start-up that manufactured solar panels, received a half-billion dollar federal loan from the program before [suddenly closing](#) last August. A short time later, the FBI raided its offices as part of a criminal investigation into whether the company misled the government about its finances.

The government is expected to recover just \$24 million of the \$527 million that taxpayers lent the company. Republicans have accused the administration of [funding Solyndra](#) because its largest



## do some serious gloating'

er e-mail exchanges in the documents appear to show deep divisions between Chu and some senior Obama economic advisers over the program.

June 2011, Chu asked Daley to settle a dispute among agency leaders over whether a \$1.4 billion loan solar generation facility was consistent with the stimulus act. Chu was a major proponent of the project Amp facility, which was proposing to use Solyndra as a sole supplier of solar panels at a time when Solyndra was in financial trouble.

Obama's senior economic leaders, including then-Office of Management and Budget director Jack Lew, expressed concerns that the project was spread over several years and did not have any immediate impact on the local economy. Lew, now Obama's chief of staff, told a DOE staffer after the Daley meeting that he was not opposed to the general idea of the project but was just "protecting the president."

After the meeting, Jonathan Silver, the director of the Energy Department's loan office, celebrated "victory" over his administration opponents. He described in an e-mail to a colleague how Chu came a close to an annihilation of the economic team's position as you could possibly hope for." Silver calculated that Daley had given the economic team "a fig leaf" and that the Energy Department's victory was cause to "do some serious gloating."

A draft of Energy Department talking points prepared for the presidential briefing highlights that the program had committed more than \$34 billion and asserted that it had created or saved 68,000 jobs. Those talking points forecast little risk from the program, although Solyndra was already showing signs of distress: The department months earlier had negotiated [a loan restructuring](#) amid threats that the firm would have to liquidate for lack of operating cash.

DOE expects that all loans will be repaid," one presentation slide said. "When loans are repaid, the benefits — including the creation of tens of thousands of jobs — will have been obtained at little cost to taxpayers."

Chu appeared eager to make sure that Obama heard about the disagreements over the program within his administration.

We need to tell the President the truth, as we see it. We need to also present the other side's point of view as fairly as possible," the secretary wrote in an e-mail to Hurlbut.

Officials at the Treasury Department and the White House Office of Management and Budget often complained that government subsidies to clean-energy companies gave them too great of a return on investment, or an "unjust enrichment," Chu wrote.

Many times, they felt that a 'better deal' could have been brokered by DOE and asked us to negotiate," he said.

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## Energy Department loan program staffers were warned not to use personal e-mail

By [Carol D. Leonnig](#) and [Joe Stephens](#), Tuesday, August 14, 3:52 PM

The former head of the Obama administration's controversial clean-energy loan program warned a staff member last year not to include personal e-mail addresses in official correspondence, to prevent the personal accounts from being subpoenaed, documents show.

Jonathan Silver, a political appointee who oversaw the Energy Department's \$38 billion program, sent the warning days before a centerpiece of the program — solar-panel maker [Solyndra](#) — declared bankruptcy, pushing a congressional investigation into high gear.

"Don't ever send an email on doe email with a personal email addresses," Silver wrote Aug. 21, 2011, from his personal account to a program official's private Gmail account. "That makes them subpoenaable."

The House Committee on Oversight and Government Reform wrote a letter to Energy Secretary Steven Chu on Tuesday, charging that he and Silver appear to have given "inaccurate" or "misleading" testimony to Congress about their handling of the loan program. Silver had testified that no one in the department used personal e-mails to conceal internal discussions about the program.

Silver repeatedly communicated about internal and sensitive loan decisions via his personal e-mail, the

"The frequent use of non-government e-mail accounts and the contents of e-mails leaves little doubt that DOE officials participated in an intentional effort to shield their communications from legal scrutiny and the public," committee Chairman Darrell Issa (R-Calif.) and subcommittee Chairmen Jim Jordan (R-Ohio) and Trey Gowdy (R-S.C.) wrote to Chu.

Silver said Tuesday that he did not mean to avoid congressional scrutiny. "I intended to advise my DOE colleagues to use their official email for official purposes and personal email for personal purposes," he said in a statement. "It was never my intention to avoid the requirements of the Federal Records Act."

Silver's warning came as he and senior White House officials were desperately negotiating with Solyndra investors to try to keep the [company alive](#). The government had backed Solyndra's panel-manufacturing facility in Fremont, Calif., with a \$535 million government loan, and one of its leading investors was the family foundation and equity firm of George Kaiser, a top Obama donor.

The Energy Department voluntarily provided the e-mails to the House oversight panel last week, department spokesman Damien LaVera said. He said that the department treated personal e-mail threads as official records in the "rare cases" in which officials had used them to discuss government business and charged that the committee had cherry-picked individual e-mails to "misrepresent the facts."

"Nothing in these e-mails or in any of the 950,000 pages of documents we have voluntarily provided to Congress demonstrates anything except what we have consistently said from day one," LaVera said.

The loan program has become a major issue in this year's presidential campaign, with Republicans accusing the administration of wasting taxpayer money and backing projects that benefited [Obama donors](#). The White House and Chu have repeatedly asserted that the Energy Department staff made all loan decisions based on merit, without regard to politics or donors.

In the new e-mails, Silver cited [political considerations](#) in pressing for the administration to approve at least one loan applicant.

Silver wrote on June 12, 2011, to David Lane, counsel to White House Chief of Staff Bill Daley, arguing that approving a loan to a solar-generation facility called Project Amp would help Obama politically.

Project Amp then planned to buy from Solyndra, which investors hoped would help the [struggling solar-panel maker](#).

"Why are the most senior people in the Administration worrying about a \$200 million deal? Don't we have bigger problems?" Silver wrote. "Obama will look like a hero if we do this to a constituency that is now worried about him."

Silver dismissed the possibility of political interference in testimony last year before a congressional oversight committee. He said that "certainly nobody that I am aware of in the loan program even knew who the individuals were who had invested, either directly or indirectly, into these companies."

But in August 2011, Silver left a voice-mail message asking to speak with Kaiser, records released earlier show. Silver also exchanged e-mails with staff members about Kaiser and other investors, and the

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manufacturer touted by President Obama for its green energy possibilities, filed for bankruptcy after receiving a \$528 million loan from the Department of Energy. Now, the Wall Street Journal reports that the administration's \$1.26 billion investment of federal funds in nine plants to produce electric car batteries is also showing poor returns. The plants were part of the president's overall energy strategy to put 1 million electric cars and hybrid vehicles on the road by 2015 while acting as an economic stimulus creating jobs in a new industry.

However, the Journal said, the battery plants have "few customers, operate well below capacity, and, so far, have created less than a third" of the 6,400 jobs that were promised by 2015. Only two of nine companies have met their hiring goals.

Among the struggling companies is A123 Systems Inc. in Michigan, which recently posted a loss of \$125 million, mainly due to problems with defective battery packs sold to its customers. President Obama visited the plant in 2010, when he touted the "birth of an entire new industry." Also struggling to survive are a nearly idled Michigan plant built by Johnson Controls Inc. and another by LG Chem, that employs 220 but has not started production. Ener1 Inc. filed for bankruptcy earlier this year but is operating with 250 employees, about 15 percent of the 1,700 employees

## Report: Ford using government-backed loans to pay off debt

[Abuelsamid](#) (RSS feed) on Aug 10th 2010 at 10:31AM



the only one of Detroit's three automakers able to avoid taking a direct government bailout to bypass bankruptcy. However, that doesn't mean it hasn't been able to benefit from government largess.

In 2006 before the credit markets collapsed, Ford essentially mortgaged every facility it owned to borrow \$23.5 billion. That money was used to provide operating cash flow that [General Motors](#) and [Chrysler](#) didn't have when things went south in 2008. The money allowed Ford to stay afloat, but it also saddled the company with the debt service payments of \$318 per vehicle per quarter of this year.

The associations said DOE, in its risk assessment, should recognize the long-term market certainty for advanced biofuels created by the Renewable Fuel Standard (RFS) of the 2007 Energy Independence and Security Act (EISA). "The RFS establishes a continuously expanding, legally mandated market for advanced biofuels, specifically designed to provide confidence to advanced biofuels investors of a reasonable prospect of repayment."

"We ask that you provide DOE guidance that mandated RFS volumes for advanced biofuels be considered to satisfy the administratively determined requirement for long-term offtake agreements for advanced biofuels projects, and that individual long-term supply agreements are not a prerequisite to issuing loan guarantees to the advanced biofuels industry," the officials said.

The biofuel associations are also asking Congress to extend the construction deadline under the EAct Section 1705 program, which authorizes guarantees for projects begun by Sept. 30, 2011.

"Given the rapid development of new technologies and high level of preparedness required by the program, a longer timeline will provide a greater number of promising technologies with the opportunity to participate, and ultimately deliver, commercial quantities of fuels, chemicals and products to market," the trade groups said.

"A program extension, coupled with explicit White House guidance to DOE on advanced biofuels projects, is likely to result in new loan guarantees being issued to this and other energy and manufacturing sectors."

At the same time, Congress should restore the \$3.5 billion diverted from the \$8.5 billion loan guarantee program to other budget priorities, the groups maintained, and establish a dedicated pool of money for advanced biofuel, biochemical and bioproduct projects.

"Next generation biorefineries face a particular challenge in securing financing because, unlike in most other renewable energy categories, these are first-of-kind facilities with little commercial precedent," they added.

"Dedicated funding for biorefinery projects would provide DOE clear direction to move forward on issuing loan guarantees for these critical technologies. Similar consideration should be applied in any future program that may be enacted, such as the proposed Clean Energy Deployment Act. Alternatively, Congress should consider giving USDA (Department of Agriculture) a formal role in program implementation for biorefinery project submissions, given the agency's expertise and position leading the administration's biofuel deployment efforts and existing biorefinery loan guarantee authority under Farm Bill section 9003."

## GAO critical of loan program for carmakers

Regulators say staffing, delays derail loans to help automakers retool for greener autos

### David Shephardson / Detroit News Washington Bureau

*Washington*—A new government report is harshly critical of a \$25 billion Energy Department loan program that is intended to help automakers retool for new fuel-efficient vehicles.

The Government Accountability Office said the Advanced Technology Vehicles Manufacturing program has serious problems, lacks enough staff and has been delayed in handing out much of its funds that were approved in September 2008.

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Chrysler Group LLC, for example, is eagerly awaiting word on its request for a \$3 billion loan that has been pending for nearly two and a half years.

As a result of the long delays, many companies have given up on their loan applications. General Motors Co., which had sought up to \$14.4 billion in loans, abandoned its effort in January. The Energy Department has made \$8.4 billion in loans, primarily to Ford Motor Co., Nissan Motor Co., Tesla Motors Inc. and Fisker Automotive Inc.

The report disclosed that the Energy Department said the loans to the four companies will save or create 37,800 jobs, including 33,000 at Ford.



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Manufacturers would have made, in the absence of the loans, to remain in compliance with increasingly federal fuel economy requirements."

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"Staff lack the engineering expertise called for by program's procedures for adequately overseeing technical aspects of the projects," the report said. a result, DOE cannot be adequately assured that projects will be delivered as agreed."

Furthermore, the report said, some of the money hasn't been used properly by three automakers. It not identify them or how much it believes was misspent.

"The auditors have reported instances in which two of the four borrowers did not spend funds as required, with two borrowers spending some loan funds outside the United States and the third spending some loan funds on ineligible payroll expenses," the GAO report said.

The Energy Department said the mistakes were minor relative to the size of the loans and that the companies have taken corrective actions. Energy spokeswoman Stephanie Mueller defended the agency's handling of the program. "The department has put in place a rigorous financial and technical review for each project that applies for a loan under the program, and the results speak for themselves," she said.

The GAO report also said the government hasn't done enough to assess the program's "broad goal of improving the fuel economy of U.S. [passenger vehicles](#) as a whole, because it does not account among other things, the fuel-economy improve

# Investing in Lithium Mining Stocks

## How To Profit from the Lithium Boom

Brian Hicks

Friday, October 16th, 2009

### Editor's Note:

While Western Lithium remains a buy, the *Pure Asset Trader* team tells me they have 2 rare earth metals — and possibly a third — they're looking to issue over the next two weeks... with an opportunity to double if not triple your money in mere months.

At Cooper heads up this team. And when they talk energy, our readers are all ears. That's because they've closed 33 winners in 35 tries this year. The gains have been exceptional.

For more information on the *Pure Asset Trader's* next move, [click here](#).

For now, here's the lithium piece I wrote a few months ago. This market is just heating up. And as you'll see below, it's a call that's already made readers a quick 30% gain.

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Warren Buffett stunned the market back in September 2008 when he announced that he was investing \$250 million in a Chinese electric car company.

Many were *stunned* because Warren Buffett seemed to violate one of his own rules of investing: Invest in companies you understand.

Buffett admitted that he doesn't know a thing about electric cars.

So why did he invest?

Because maybe, just maybe, he knows that electric cars are a guaranteed winner.

So I'm not recommending GM, Nissan, or any other automobile stock that's developing electric cars.

Instead, I'm going to recommend the commodity that is vital to the battery technology that'll be used in electric cars: **lithium**.

The play is a tiny mining outfit called Western Lithium (WLC.V: WLCDF). The stock currently trades for about \$1.08 a share.



If you're skeptical or concerned that fuel efficiency alone is not enough to entice Americans to buy electric cars, consider the Silicon Valley company Tesla Motors (pictured above). While their roadster is the first production automobile to use lithium-ion battery cells and travel more than 200 miles per charge, it is also capable of going from 0-60mph in under four seconds.

Not only will the Roadster leave most sports cars in the dust, the car recently set a distance record in April 2009 when it completed the 241-mile Rallye Monte Carlo d'Energies Alternatives with 36 miles left on the charge.

Even though the Roadster is probably too pricey for the average consumer at just over \$100,000, Tesla has taken more than 1,000 reservations for the car and expects to begin production of an all-electric and more affordable sedan starting in late 2011.

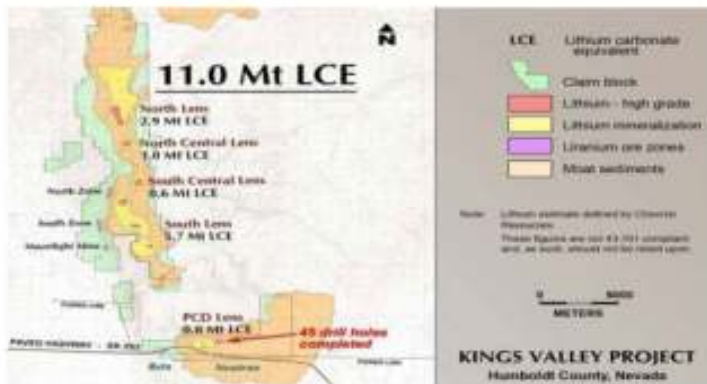
But just remember, the Tesla - as well as every other electric car - needs lithium. And [demand for lithium](#) is skyrocketing.

Lithium prices have nearly tripled over the past decade with 22% compound annual growth since 2000 for use in laptops, cell phones, and other electronics.

Demand is expected to continue rising, the recent lithium mania has been ignited by the fact that [electric cars](#) require about 3,000 times the lithium needed for an average cell phone, or 100 times the lithium used in a computer battery.

This huge spike in demand should propel lithium prices much higher over the next few years.

The best way to profit from the lithium boom is [Western Lithium](#), which owns the largest known lithium deposit in North America. Take a look. . .



According to a recent investment report:

The near surface lithium clay deposit is located in Nevada, USA and was initially discovered by the US Geological Survey and Chevron USA in the 1970's. Engineering work completed by Chevron, and later by the US Bureau of Mines in the 1980's, is now being advanced by Western Lithium.

The company's flagship Kings Valley property has a National Instrument 43-101 resource estimate for the initial stage of development and in total hosts a historically estimated 11 million tonnes of lithium carbonate equivalent (LCE). The project has a well developed local infrastructure and Nevada has a long history in the metals and industrial mineral mining industry. The company plans a scoping study during Q3 of 2009, a pre-feasibility study with results from additional drilling during 2010 and projected production by 2013. A chart with the world's largest lithium deposits is below.

While brine is usually the cheapest to mine and process, followed by clay and then pegamite (hard rock), it really depends on the quality of the material and presence of contaminants. It can be cheaper to develop a good rock or clay than a low-quality brine. Access to roads and infrastructure also play important roles in a project's economic feasibility. Western Lithium has a clear advantage to competition in this regard as their clay deposit is touted as high-quality (99% commercial quality) and the project already has all of the necessary road access and infrastructure needed to begin construction and production.

Western Lithium is well-funded and debt free, with \$7.3 million cash on the books. They recently completed a \$5.5 million private placement in May of this year and have a market cap of 70 million.

Yes, the stock is up a lot this past year. . . but I believe the lithium bull market is just getting started.

I think we'll witness something similar to a uranium-style bull market that lasted several years.

I personally own Western Lithium around \$1 per share. I will continue to add to my position on dips.

Profitably yours

## Decision on Next Autoworks loan may not come this year

By Greg Hilburn • ghilburn@thenewsstar.com • December 27, 2010

U.S. Rep. Rodney Alexander said he spoke with U.S. Department of Energy officials last week who said no decision would be made on Next Autoworks' application for \$320 million in federal loans before the end of the year, but that the agency is continuing its evaluation of the project.

An Energy Department spokesman told The News-Star in October the agency's goal was to make a decision on a group of applications that included Next Autoworks' request before the end of 2010, but also said there was no set timetable on any of the announcements.

Alexander, R-Quitman, said he contacted the Energy Department before the House recessed for the holidays.

"We were getting a little concerned because we had hoped there would be an answer before the end of the year," he said.

Alexander said the officials he spoke to at the agency said the application processed was slowed "after a change of leadership at the company."

Next Autoworks hired veteran auto executive Kathleen Ligocki in October as its new chief executive. She took over for interim chief executive Ray Lane, who continues as the company's board chairman.

Lane stepped into the interim CEO job after the board ousted founder Frank Varasano last spring when the Energy Department rejected the company's first application.

"The (Energy Department) official told me that when there is a change of leadership it just takes more time to evaluate the application," Alexander said.

Energy Department spokesman Ebony Meeks couldn't be reached for comment Monday.

Next Autoworks officials said they won't comment on the application as long as it's being evaluated.

Energy Department's Advanced Technology Vehicle Manufacturing loan program. They are considered essential for the project to proceed.

If the company, which was originally named V-Vehicle Co., secures the loans it plans to build a new high mileage car at the former Guide Corp. in Ouachita Parish just east of Monroe.

Next Autoworks promises to hire 1,400 employees at the plant, which will almost double in size from 425,000 square feet to 800,000 square feet.

At full production, the plant would assemble 150,000 cars per year. The hatchback would get about 40 miles per gallon and retail for about \$10,000.

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MD. Why?**

## Transaction Number # 1

IDV PIID : PIID GS10F0343K : DEAT0105ME00038: 89 (Delivery Order)

Recipient: TECH AND MGT SERVIC

18757 N FREDERICK AVE , GAITHERSBURG, MARYLAND

Reason for Modification: Funding Only Action

Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account

Agency: Department of Energy : ENERGY Department of Product/Service Code: R499 : Other

Professional Services Description: TAS::89 0323::TAS Recovery CONSULTING AND GENERAL SUPPORT  
SERVICES INCLUDING BUSINESS ... (View More) TAS::89 0323::TAS Recovery CONSULTING AND GENERAL SUPPORT  
SERVICES INCLUDING BUSINESS PROCESS IMPROVEMENT ORGANIZATIONAL STUDIES AND ANALYSES FINANCIAL BUDGETARY  
AND ECONOMIC ANALYSIS PROJECT MANAGEMENT SUPPORT ETC. ARRA::YES::ARRA Date Signed:

September 21, 2009

Obligation Amount:

\$800,000

## Transaction Number # 2

IDV PIID : PIID GS10F0343K : DEAT0105ME00038: 98 (Delivery Order)

Recipient: TECHNOLOGY &amp; MANAGEMENT SERVICES INC.

18757 N FREDERICK AVE , GAITHERSBURG, MARYLAND

Reason for Modification: Funding Only Action

Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account

Agency: Department of Energy : ENERGY Department of Product/Service Code: R499 : Other

Professional Services Description: TAS::89 0323::TAS RECOVERY CONSULTING AND GENERAL SUPPORT  
SERVICES INCLUDING BUSINESS ... (View More) TAS::89 0323::TAS RECOVERY CONSULTING AND GENERAL SUPPORT  
SERVICES INCLUDING BUSINESS PROCESS IMPROVEMENT ORGANIZATIONAL STUDIES AND ANALYSES FINANCIAL BUDGETARY  
AND ECONOMIC ANALYSIS PROJECT MANAGEMENT SUPPORT ETC. Date Signed:

December 10, 2009

Obligation Amount:

\$734,414

## Transaction Number # 3

PIID: DECF0000018: 4 (Definitive Contract)

Recipient: GRANT THORNTON INTERNATIONAL LTD

333 JOHN CARLYLE ST STE 500 , ALEXANDRIA, VIRGINIA

Reason for Modification: Funding Only Action

Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account

Agency: Department of Energy : ENERGY Department of Product/Service Code: R703 : Accounting

Services (NOTE: New code created for Financial Services see R710 below) Description: TAS::89 0323::TAS

Recovery financial services to support the Advanced ... (View More) TAS::89 0323::TAS Recovery

financial services to support the Advanced Technology Vehicle Manufacturers Loan Program. ARRA::YES::ARRA

Date Signed:

July 16, 2009

Obligation Amount:

\$684,210

## Transaction Number # 4

IDV PIID : PIID GS10F0343K : DEAT0105ME00038: 67 (Delivery Order)

Recipient: TECH AND MGT SERVIC

18757 N FREDERICK AVE , GAITHERSBURG, MARYLAND

Reason for Modification: Funding Only Action

Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account

Agency: Department of Energy : ENERGY Department of Product/Service Code: R499 : Other

Professional Services Description: TAS::89 0323::TAS Recovery CONSULTING AND GENERAL SUPPORT

SERVICES ARRA::YES::ARRA

Date Signed:

May 28, 2009

Obligation Amount:

\$600,000

## Transaction Number # 5

PIID: DEGC0000005: 5 (Definitive Contract)

Recipient: PAUL WEISS RIFKIND WHARTON &amp; GARRISON LLP

1285 AVE OF THE AMERICAS , NEW YORK, NEW YORK

Reason for Modification: Funding Only Action

Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account

Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal

Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES ARRA::YES::ARRA

Date Signed:

June 30, 2009

Obligation Amount:  
\$520,855

Transaction Number # 6  
PIID: DEGC0000004: 8 (Definitive Contract)  
Recipient: DEBEVOISE & PLIMPTON LLP  
919 3RD AVE LBBY 3 , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES to support the Advanced ... (View  
More) TAS::89 0323::TAS Recovery LEGAL SERVICES to support the Advanced Technology Manufacturing  
loan program. ARRA::YES::ARRA Date signed:  
September 16 , 2009

Obligation Amount:  
\$519,590

Transaction Number # 7  
PIID: DEGC0000004: 4 (Definitive Contract)  
Recipient: DEBEVOISE & PLIMPTON LLP  
919 3RD AVE LBBY 3 , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES ARRA::YES::ARRA  
Date signed:  
June 30 , 2009

Obligation Amount:  
\$445,218

Transaction Number # 8  
PIID: DEGC0000004: 2 (Definitive Contract)  
Recipient: DEBEVOISE & PLIMPTON LLP  
919 3RD AVE LBBY 3 , NEW YORK, NEW YORK  
Reason for Modification: Change Order  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES ARRA::YES::ARRA  
Date signed:  
June 03 , 2009

Obligation Amount:  
\$432,680

Transaction Number # 9  
IDV PIID : PIID GS10F0343X : DEAT0105ME00038: 64 (Delivery Order)  
Recipient: TECH AND MGT SERVIC  
18757 N FREDERICK AVE , GAITHERSBURG, MARYLAND  
Reason for Modification: Supplemental Agreement for work within scope  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R499 : Other  
Professional Services Description: TAS::89 0323::TAS Recovery CONSULTING AND GENERAL SUPPORT  
SERVICES ARRA::YES::ARRA  
Date signed:  
May 15 , 2009

Obligation Amount:  
\$416,952

Transaction Number # 10  
PIID: DEGC0000003: 1 (Definitive Contract)  
Recipient: CLEARY GOTTLIEB STEEN & HAMILTON LLP  
1 LIBERTY PLZ FL 43 , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery Act: The purpose of this requisition is ... (View  
More) TAS::89 0323::TAS Recovery Act: The purpose of this requisition is to add Recovery Act funding in  
the amount of \$408 924 to contract DE-GC0000003 with Clear in support of the Advanced Technology Vehicle  
Manufacturer Loan Program. LEGAL SERVICES ARRA::YES::ARRA Date Signed:  
August 04 , 2009



Obligation Amount:  
\$408,924

Transaction Number # 11

PIID: DEGC000005: 3 (Definitive Contract)  
Recipient: PAUL WEISS RIFKIND WHARTON & GARRISON LLP  
1285 AVE OF THE AMERICAS , NEW YORK, NEW YORK  
Reason for Modification: Change Order  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES ARRA::YES::ARRA  
Date Signed:  
June 03 , 2009

Obligation Amount:  
\$393,585

Transaction Number # 12

IDV PIID : PIID GS10F0265K : DEAT0106CF01301: 13 (Delivery Order)  
Recipient: SCULLY CAPITAL SERVICES INC (DEL)  
1133 15TH ST NW STE 900 , WASHINGTON, DISTRICT OF COLUMBIA  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R710 : Financial  
Services (includes credit card services and any other financial services. See revision to description for code R703 above) Description: TAS::89 0323::TAS Recovery obligate FY 09 ARRA funding in the ... (View More) TAS::89 0323::TAS Recovery obligate FY 09 ARRA funding in the amount of \$319 496.00. Date Signed:  
December 24 , 2009

Obligation Amount:  
\$319,496

Transaction Number # 13

PIID: DECF0000018: 5 (Definitive Contract)  
Recipient: GRANT THORNTON INTERNATIONAL LTD  
333 JOHN CARLYLE ST STE 500 , ALEXANDRIA, VIRGINIA  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R703 : Accounting  
Services (NOTE: New code created for Financial Services see R710 below) Description: TAS::89 0323::TAS Recovery financial services to support the Advanced ... (view More) TAS::89 0323::TAS Recovery financial services to support the Advanced Technology Vehicle Manufacturers Loan Program ARRA::YES::ARRA  
Date Signed:  
August 25 , 2009

Obligation Amount:  
\$314,910

Transaction Number # 14

PIID: DECF0000014: 4 (Definitive Contract)  
Recipient: BOOZ ALLEN HAMILTON INC.  
8283 GREENSBORO DR , MCLEAN, VIRGINIA  
Reason for Modification: Change Order  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R703 : Accounting  
Services (NOTE: New code created for Financial Services see R710 below) Description: TAS::89 0323::TAS Recovery FINANCIAL SERVICES ARRA::YES::ARRA  
Date Signed:  
June 03 , 2009

Obligation Amount:  
\$308,837

Transaction Number # 15

IDV PIID : PIID GS10F0343K : DEAT0105ME00038: 112 (Delivery Order)  
Recipient: TECH AND MGT SERVIC  
18757 N FREDERICK AVE , GAITHERSBURG, MARYLAND  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R499 : Other  
Professional Services Description: TAS::89 0323::TAS RECOVERY CONSULTING AND GENERAL SUPPORT SERVICES INCLUDING BUSINESS ... (view More) TAS::89 0323::TAS RECOVERY CONSULTING AND GENERAL SUPPORT

Obligation Amount:  
\$304,851

Transaction Number # 16  
PIID: DEGC000004: 7 (Definitive Contract)  
Recipient: DEBEVOISE & PLIMPTON LLP  
919 3RD AVE LBBY 3 , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES to support the Advanced ... (View  
More) TAS::89 0323::TAS Recovery LEGAL SERVICES to support the Advanced Technology Vehicle Manufacturers  
Loan program. ARRA::YES::ARRA Date Signed:  
August 18 , 2009

Obligation Amount:  
\$273,825

Transaction Number # 17  
IDV PIID : PIID GS10F0343K : DEAT0105NE00038: 93 (Delivery Order)  
Recipient: TECH AND MGT SERVIC  
18757 N FREDERICK AVE , GAITHERSBURG, MARYLAND  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R499 : Other  
Professional Services Description: TAS::89 0323::TAS RECOVERY CONSULTING AND GENERAL SUPPORT  
SERVICES INCLUDING BUSINESS ... (View More) TAS::89 0323::TAS RECOVERY CONSULTING AND GENERAL SUPPORT  
SERVICES INCLUDING BUSINESS PROCESS IMPROVEMENT ORGANIZATIONAL STUDIES AND ANALYSES FINANCIAL BUDGETARY  
AND ECONOMIC ANALYSIS PROJECT MANAGEMENT SUPPORT ETC. ARRA::YES::ARRA Date Signed:  
October 29 , 2009

Obligation Amount:  
\$267,166

Transaction Number # 18  
PIID: DEGC0000003: 4 (Definitive Contract)  
Recipient: CLEARY GOTTLIEB STEEN & HAMILTON LLP  
1 LIBERTY PLZ FL 43 , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery Act: The purpose of this requisition is ... (View  
More) TAS::89 0323::TAS Recovery Act: The purpose of this requisition is to add Recovery Act funding in  
support of the Advanced Technology Vehicles Manufacturing Loan Program. LEGAL SERVICES ARRA::YES::ARRA  
Date Signed:  
October 21 , 2009

Obligation Amount:  
\$204,462

Transaction Number # 19  
PIID: DEGC0000003: 3 (Definitive Contract)  
Recipient: CLEARY GOTTLIEB STEEN & HAMILTON LLP  
1 LIBERTY PLZ FL 43 , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery Act: The purpose of this requisition is ... (View  
More) TAS::89 0323::TAS Recovery Act: The purpose of this requisition is to add Recovery Act funding in  
support of the Advanced Technology Vehicles Manufacturing Loan Program. LEGAL SERVICES ARRA::YES::ARRA  
Date Signed:  
October 09 , 2009

Obligation Amount:  
\$204,462

Transaction Number # 20  
PIID: DEGC0000003: 2 (Definitive Contract)  
Recipient: CLEARY GOTTLIEB STEEN & HAMILTON LLP  
1 LIBERTY PLZ FL 43 , NEW YORK, NEW YORK

Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery ACT: The purpose of this requisition is ... (View More)  
TAS::89 0323::TAS Recovery ACT: The purpose of this requisition is to add Recovery ACT funding in the amount of \$200 000 in support of the Advanced Technology Vehicles Manufacturing Loan Program. LEGAL SERVICES ARRA::YES::ARRA Date Signed:  
September 15 , 2009

Obligation Amount:  
\$200,000

Transaction Number # 21  
PIID: DEGC0000005: 7 (Definitive Contract)  
Recipient: PAUL WEISS RIFKIND WHARTON & GARRISON LLP  
1285 AVE OF THE AMERICAS , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES in support of the ... (View More)  
TAS::89 0323::TAS Recovery LEGAL SERVICES in support of the Advanced Technology Vehicles Manufacturing Loan Program. ARRA::YES::ARRA Date Signed:  
September 15 , 2009

Obligation Amount:  
\$200,000

Transaction Number # 22  
IDV PIID : PIID GS10F0343K : DEAT0105ME00038: 73 (Delivery order)  
Recipient: TECH AND MGT SERVIC  
18757 N FREDERICK AVE , GAITHERSBURG, MARYLAND  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R499 : Other  
Professional Services Description: TAS::89 0323::TAS Recovery Act Funding CONSULTING AND GENERAL SUPPORT SERVICES ... (View More)  
TAS::89 0323::TAS Recovery Act Funding CONSULTING AND GENERAL SUPPORT SERVICES INCLUDING BUSINESS PROCESS IMPROVEMENT ORGANIZATIONAL STUDIES AND ANALYSES FINANCIAL BUDGETARY AND ECONOMIC ANALYSIS PROJECT MANAGEMENT SUPPORT ETC. ARRA::YES::ARRA Date Signed:  
July 08 , 2009

Obligation Amount:  
\$195,100

Transaction Number # 23  
PIID: DEGC0000004: 3 (Definitive Contract)  
Recipient: DEBEVOISE & PLIMPTON LLP  
919 3RD AVE LBBY 3 , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES ARRA::YES::ARRA  
Date Signed:  
June 19 , 2009

Obligation Amount:  
\$150,000

Transaction Number # 24  
PIID: DECF0000018: 6 (Definitive Contract)  
Recipient: GRANT THORNTON INTERNATIONAL LTD  
333 JOHN CARLYLE ST STE 500 , ALEXANDRIA, VIRGINIA  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R703 : Accounting  
Services (NOTE: New code created for Financial Services See R710 below) Description: TAS::89 0323::TAS Recovery financial services to support the Advanced ... (view More)  
TAS::89 0323::TAS Recovery financial services to support the Advanced Technology Vehicle Manufacturers Loan Program ARRA::YES::ARRA  
Date Signed:  
September 21 , 2009

Obligation Amount:  
\$141,250

Transaction Number # 25

PIID : PIID 6510F0265K DEAT0106CF01301: 12 (Delivery Order)  
Recipient: SCULLY CAPITAL SVC  
1133 15TH ST NW STE 900 , WASHINGTON, DISTRICT OF COLUMBIA  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R710 : Financial  
Services (includes credit card services and any other financial services. See revision to description for  
code R703 above) Description: TAS::89 0323::TAS Recovery obligate FY 09 ARRA funding in the ...

Transaction Number # 26  
PIID: DECF0000014: 8 (Definitive Contract)  
Recipient: BOOZ ALLEN HAMILTON INC.  
8283 GREENSBORO DR , MCLEAN, VIRGINIA  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R703 : Accounting  
Services (NOTE: New code created for Financial Services See R710 below) Description: TAS::89 0323::TAS  
Recovery FINANCIAL SERVICES in support of the ... (View More) TAS::89 0323::TAS Recovery FINANCIAL  
SERVICES in support of the Advanced Technology Vehicles Manufacturing Loan Program. ARRA: YES:ARRA  
Date Signed:  
September 15 , 2009

Obligation Amount:  
\$102,479

Transaction Number # 27  
PIID: DEGC0000005: 6 (Definitive Contract)  
Recipient: PAUL WEISS RIFKIND WHARTON & GARRISON LLP  
1285 AVE OF THE AMERICAS , NEW YORK, NEW YORK  
Reason for Modification: Other Administrative Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES to support the Advanced ... (View  
More) TAS::89 0323::TAS Recovery LEGAL SERVICES to support the Advanced Technology Vehicle Manufacturers  
Loan Program ARRA: YES:ARRA Date Signed:  
August 12 , 2009

Obligation Amount:  
\$98,275

Transaction Number # 28  
PIID: DEGC0000005: 4 (Definitive Contract)  
Recipient: PAUL WEISS RIFKIND WHARTON & GARRISON LLP  
1285 AVE OF THE AMERICAS , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES ARRA: YES:ARRA  
Date Signed:  
June 18 , 2009

Obligation Amount:  
\$68,943

Transaction Number # 29  
PIID: DEGC0000004: 6 (Definitive Contract)  
Recipient: DEBEVOISE & PLIMPTON LLP  
919 3RD AVE LBBY 3 , NEW YORK, NEW YORK  
Reason for Modification: Other Administrative Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery LEGAL SERVICES to support the Advanced ... (View  
More) TAS::89 0323::TAS Recovery LEGAL SERVICES to support the Advanced Technology Vehicle Manufacturers  
Loan Program. ARRA: YES:ARRA Date Signed:  
August 12 , 2009

Obligation Amount:  
\$56,475

Transaction Number # 30  
PIID: DEGC0000004: 5 (Definitive Contract)  
Recipient: DEBEVOISE & PLIMPTON LLP  
919 3RD AVE LBBY 3 , NEW YORK, NEW YORK

Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R41B : Legal  
Services Description: TAS:89 0323::TAS Recovery LEGAL SERVICES to support the Advanced ... (View  
More) TAS:89 0323::TAS Recovery LEGAL SERVICES to support the Advanced Technology Vehicle Manufacturers  
Loan Program (ATVMP). Providing legal counsel on programmatic aspects of the ATVMP and on transactions  
proposed or consummated under the ATVMP. ARRA: YES::ARRA Date Signed:  
July 14 , 2009

Obligation Amount:  
\$51,042

Transaction Number # 31  
PIID: DECF0000014: 9 (Definitive Contract)  
Recipient: BOOZ ALLEN HAMILTON INC.  
8283 GREENSBORO DR , MCLEAN, VIRGINIA  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R703 : Accounting  
Services (NOTE: New code created for Financial Services See R710 below) Description: TAS:89 0323::TAS  
Recovery FINANCIAL SERVICES in support of the ... (View More) TAS:89 0323::TAS Recovery FINANCIAL  
SERVICES in support of the Advanced Technology Vehicles Manufacturing Loan Program. ARRA: YES::ARRA  
Date Signed:  
November 18 , 2009

Obligation Amount:  
\$30,000

Transaction Number # 32  
PIID: DECF0000014: 7 (Definitive Contract)  
Recipient: BOOZ ALLEN HAMILTON INC.  
8283 GREENSBORO DR , MCLEAN, VIRGINIA  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R703 : Accounting  
Services (NOTE: New code created for Financial Services See R710 below) Description: TAS:89 0323::TAS  
Recovery FINANCIAL SERVICES ARRA: YES::ARRA  
Date signed:  
July 16 , 2009

Obligation Amount:  
\$29,000

Transaction Number # 33  
PIID: DECF0000014: 5 (Definitive Contract)  
Recipient: BOOZ ALLEN HAMILTON INC.  
8283 GREENSBORO DR , MCLEAN, VIRGINIA  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R703 : Accounting  
Services (NOTE: New code created for Financial Services See R710 below) Description: TAS:89 0323::TAS  
Recovery FINANCIAL SERVICES ARRA: YES::ARRA  
Date signed:  
June 30 , 2009

Obligation Amount:  
\$25,000

Transaction Number # 34  
PIID: DECF0000014: 11 (Definitive Contract)  
Recipient: BOOZ ALLEN HAMILTON INC.  
8283 GREENSBORO DR , MCLEAN, VIRGINIA  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R703 : Accounting  
Services (NOTE: New code created for Financial Services See R710 below) Description: TAS:89 0323::TAS  
RECOVERY FINANCIAL SERVICES in ... (View More) TAS:89 0323::TAS RECOVERY FINANCIAL SERVICES in support  
of the Advanced Technology Vehicles Manufacturing Loan Program. Date Signed:  
April 28 , 2010

Obligation Amount:  
\$46,118

Transaction Number # 35

DEGC0000004: 9 (Definitive Contract)  
Recipient: DEBEVOISE & PLIMPTON LLP  
919 3RD AVE LBBY 3 , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS RECOVERY  
Date Signed:  
November 18 , 2010

Obligation Amount:  
\$-86,650

Transaction Number # 36  
PIID: DEGC0000005: 13 (Definitive Contract)  
Recipient: PAUL WEISS RIFKIND WHARTON & GARRISON LLP  
1285 AVE OF THE AMERICAS , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS Recovery  
Date Signed:  
July 06 , 2010

Obligation Amount:  
\$-294,322

Transaction Number # 37  
PIID: DEGC0000003: 6 (Definitive Contract)  
Recipient: CLEARLY GOTTLIEB STEEN & HAMILTON LLP  
1 LIBERTY PLZ FL 43 , NEW YORK, NEW YORK  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R418 : Legal  
Services Description: TAS::89 0323::TAS RECOVERY LEGAL SERVICES in support of the ... (view More)  
TAS::89 0323::TAS RECOVERY LEGAL SERVICES in support of the Advanced Technology Vehicles Manufacturing  
Loan Program. Date Signed:  
August 11 , 2010

Obligation Amount:  
\$-483,197

Transaction Number # 38  
PIID: DECF0000018: 8 (Definitive Contract)  
Recipient: GRANT THORNTON INTERNATIONAL LTD  
333 JOHN CARLYLE ST STE 500 , ALEXANDRIA, VIRGINIA  
Reason for Modification: Funding Only Action  
Program Source: 89-0323:Advanced Technology Vehicles Manufacturing Loan Program Account  
Agency: Department of Energy : ENERGY Department of Product/Service Code: R703 : Accounting  
Services (NOTE: New code created for Financial Services see R710 below) Description: TAS::89 0323::TAS

gress > [Legislation](#)

## **H.R. 1382: Innovative Vehicle Act**

<sup>113</sup> Congress  
2009-2010

[Summaries](#)

### **Congressional Research Service Summary**

The following summary was written by the Congressional Research Service, a well-respected bipartisan arm of the Library of Congress. GovTrack did not write and has no control over the summaries.

9/2009--Introduced.

**Innovative Vehicle Act** - Amends the Energy Independence and Security Act of 2007 to include: (1) ultra efficient vehicles within the meaning of "advanced technology vehicle"; (2) ultra efficient vehicle manufacturers as eligible recipients of advanced vehicles manufacturing facility funding awards; (3) priorities for the manufacture of ultra efficient vehicles among facilities that are given priority for such awards; and (4) a firm that manufactures ultra efficient vehicles or components of such vehicles with the meaning of "covered firm." Defines "ultra efficient vehicle" to mean a fully closed compartment vehicle designed to carry at least two adult passengers that achieves: (1) at least 75 miles per gallon while operating on gasoline or diesel fuel; or (2) the equivalent while operating as a hybrid electric-gasoline or electric-diesel vehicle or as a fully electric vehicle. Requires the Secretary of Energy to consider applications for assistance under the advanced technology vehicles manufacturing incentive program that were timely filed but rejected because the vehicles to which the proposal related were ultra efficient vehicles and not advanced technology vehicles.

Since the U.S. Congress posts most legislative information online one legislative day after events occur, GovTrack is typically one legislative day behind. For more information about where this data comes from, see [About GovTrack.us](#). To use this information, click a citation format for a suggestion: [APA](#) | [MLA](#) | [Wikipedia Template](#)

scandal have had little effect.

The following is a script of "The Lobbyist's Playbook" which aired on Nov. 6, 2011. Lesley Stahl is the correspondent. Ira Rosen, producer.

Jack Abramoff may be the most notorious and crooked lobbyist of our time. He was at the center of a massive scandal of brazen corruption and influence peddling.

60 Minutes Overtime

Jack Abramoff: Inside Capitol corruption »

As a Republican lobbyist starting in the mid 1990s, he became a master at showering gifts on lawmakers in return for their votes on legislation and tax breaks favorable to his clients. He was so good at it, he took home \$20 million a year.

It all came crashing down five years ago, when Jack Abramoff pled guilty to corrupting public officials, tax evasion and fraud, and served three and a half years in prison.

Today he's a symbol of how money corrupts Washington. In our interview tonight, he opens up his playbook for the first time.

And explains exactly how he used his clients' money to buy powerful friends and influence legislation.

Jack Abramoff: I was so far into it that I couldn't figure out where right and wrong was. I believed that I was among the top moral people in the business. I was totally blinded by what was going on.

Jack Abramoff was a whiz at influencing legislation and one way he did that was to get his clients, like some Indian tribes, to make substantial campaign contributions to select members of Congress.

Abramoff: As I look back it was effective. It certainly helped the people I was trying to help, both the clients and the Republicans at that time.

Lesley Stahl: But even that, you're now saying, was corrupt?

Abramoff: Yes.

Stahl: Can you quantify how much it costs to corrupt a congressman?



private jets and limos to the world's great golf destinations like St Andrews in Scotland. Free meals at his own upscale Washington restaurant and access to the best tickets to all the area's sporting events; including two skyboxes at Washington Redskins games.

Abramoff: I spent over a million dollars a year on tickets to sporting events and concerts and what not at all the venues.

Stahl: A million dollars?

Abramoff: Ya. Ya.

Stahl: For the best seats?

Abramoff: The best seats. I had two people on my staff whose virtual full-time job was booking tickets. We were Ticketmaster for these guys.

Stahl: And the congressman or senator could take his favorite people from his district to the game--

Abramoff: The congressman or senator uh, could take two dozen of his favorite people from their district.

Stahl: Was all that legal?

Abramoff: We would certainly try to make the activity legal, if we could. At times we didn't care.

But the "best way" to get a congressional office to do his bidding - he says - was to offer a staffer a job that could triple his salary.

Abramoff: When we would become friendly with an office and they were important to us, and the chief of staff was a competent person, I would say or my staff would say to him or her at some point, "You know, when you're done working on the Hill, we'd very much like you to consider coming to work for us." Now the moment I said that to them or any of our staff said that to 'em, that was it. We owned them. And what does that mean? Every request from our office, every request of our clients, everything that we want, they're gonna do. And not only that, they're gonna think of things we can't think of to do.

Neil Volz: Jack Abramoff could sweet talk a dog off a meat truck, that's

I'm-- I'm wrestlin' with how much I think I should get paid. And then five minutes later we're-- he's askin' me questions about some clients of his.

Stahl: when you look back was that the corrupting moment?

Volz: I think we were guilty of engaging in a corrupt relationship. So there were several corrupting moments. There isn't just one moment. There were many.

Abramoff: At the end of the day most of the people that I encountered who worked on Capitol Hill wanted to come work on K Street, wanted to be lobbyists.

Stahl: You're telling me this, the genius of figuring out you could own the office by offering a job to the chief of staff, say. I'm having two reactions. One is brilliant. And the other is I'm sick to my stomach.

Abramoff: Right. Evil. Yeah. Terrible.

Stahl: 'Cause it's hurting our country.

Abramoff: Shameful. Absolutely. It's the worst thing that could happen. All parts of the system.

Stahl: I'm mad at you.

Abramoff: I was mad at me--

Stahl: I'm not kidding. I'm not kidding.

Abramoff: Look I did things and I was involved in the system I should not have been in. I'm ashamed of the fact I was there, the very reason why now I'm speaking about it. And now I'm trying to do something, in recompense, is the fact that I thought it was-- it was wrong of me to do it.

One of the offices he keyed on was that of his good friend, the Majority Leader Tom Delay, eventually hiring his deputy chief of staff and his press secretary, and going into business with Delay's chief of staff.

Stahl: Did you own his staff?

Abramoff: I was as close to his staff as to any staff. I had a very strong personal relationship with a lot of his staff.

Stahl: You were congressional offices. Did you actually own?

as a way to build alliances with the white House and the majority leader.  
Ney: I wanted to be speaker of the House and Jack Abramoff was the beautiful light of day for me to get to the person who I had had some conflicts with, Tom Delay.

Abramoff began inviting Ney on golf trips including one to Scotland and to his restaurant Signatures, where Ney was given food and drinks on the house, a violation of the congressional gift limit laws. Ney says he was hardly the only one crossing the line.

Ney: But I will still tell you, at that point in time, in order to get a drink at Signatures you had to shove white House staffers of George Bush the heck away from the bar. And it was packed with people. And there were members. Now that doesn't mean everybody did everything for Jack. But if you wanna talk about strict interpretation of violation of the-- of-- of the laws of drink and food, Katey bar the door, she was wide open, two shotguns blarin'.

After months of taking handouts, Ney was approached by Neil volz, his former chief of staff, by then a lobbyist for Abramoff.

volz: I let you down man and I'm sorry...

Volz asked Ney to insert some language into a reform bill that would give a backdoor license to an Indian casino owned by one of Abramoff's clients. You often hear about lobbyists getting special secret deals for their clients like this. It's an insidious technique that Abramoff perfected.

Abramoff: so what we did was we crafted language that was so obscure, so confusing, so uninformative, but so precise to change the U.S. code.

Stahl: Here's what you tried to get tacked on to this reform bill.

Abramoff: Yeah.

Stahl: "Public law 100-89 is amended by striking section 207 (101 stat. 668, 672)."

Abramoff: Right. Now isn't that obvious what that means? It was perfect. It

Abramoff: Yes.

Stahl: And it was deliberately written like that?

Abramoff: Precisely. Yes.

Stahl: And that's done a lot?

Abramoff: Members don't read the bills.

Stahl: You didn't even know what it was for?

Ney: Had no idea. And then when we got the written language--

Stahl: Well-- why didn't you know what it was for?

Ney: I didn't-- I didn't care.

Stahl: Oh!

Ney: It was a great big shell game. And I was in the middle of it, whether, you know, knowing or not. I-- I was dumb enough to not say, "what's this thing do?"

Ney would eventually serve 17 months in federal prison, the only congressman who was ever charged in the scandal. But Abramoff says that there were many other members that did his bidding that could have been charged.

Stahl: Was buying favors from lawmakers easy?

Abramoff: I think people are under the impression that the corruption only involves somebody handing over a check and getting a favor. And that's not the case. The corruption, the bribery, call it, because ultimately that's what it is. That's what the whole system is.

Stahl: The whole system's bribery?

Abramoff: In my view, I'm talking about giving a gift to somebody who makes a decision on behalf of the public. At the end of the day, that's really what bribery is. But it is done everyday and it is still being done. The truth is there were very few members who I could even name or could think of who didn't at some level participate in that.

Abramoff prided himself on being a man who did good. He was devoutly religious and unshakably charitable, and he says he gave away 99 percent

what this is about. This is what lobbyists do.

what he didn't understand was the part that said he and a former aide to Tom Delay had overbilled four of his Indian casino clients by \$45 million. In the end, he was brought up on federal charges of tax evasion and ripping off Indian tribes. On the day he went to court and pled guilty, Abramoff looked grim. The judge sentenced him to four years.

Stahl: I really think what you were doing was-- was subverting the essence of our system.

Abramoff: Yes. Absolutely right. But our system is flawed and has to be fixed. Human beings populate our system. Human beings are weak.

Stahl: And you preyed on that?

Abramoff: I did. I was one of many who did. I did. And I'm ashamed of that fact.

He was sent to a medium security facility in Cumberland, Maryland. When he was released last June, he began working as an accountant at a kosher pizza parlor. Turns out Jack Abramoff was broke, partly because he is paying off nearly \$24 million in restitution to the Indian tribes. Today he lives in his old house in Maryland with his wife, five children and the two doberman pinschers Mrs. Abramoff bought to protect the family while he was away.

After the scandal, Congress instituted a package of reforms, making what Abramoff did - like plying members of Congress with free expensive meals - illegal. But he doesn't see the new reforms as being very effective.

Abramoff: The reform efforts continually are these faux-reform efforts where they'll change, they'll tweak the system. They'll say, "You can have a meal with a congressman if they're standing up, not sitting down."

Stahl: Is that serious? Or are you joking?

Abramoff: Oh no, I'm not joking at all.

Stahl: So, it's okay if you pay for lunch as long as you stand up?

Abramoff: well, it's actually worse than that. You can't take a congressman

Abramoff: There's an arrogance on the part of lobbyists, and certainly there was on the part of me and my team, that no matter what they come up we, we're smarter than they are and we'll overcome it. We'll just find another way through. That's all.

He says the most important thing that needs to be done is to prohibit members of Congress and their staff from ever becoming lobbyists in Washington.

Abramoff: If you make the choice to serve the public, public service, then serve the public, not yourself. When you're done, go home. Washington's a dangerous place. Don't hang around.

Former Congressman Bob Ney now works part-time as a radio host.

His former chief of staff Neil Volz is currently working as a night janitor at a Florida restaurant.

And Jack Abramoff has written a memoir called "Capitol Punishment."

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Diesel exhaust is carcinogenic in human lungs, according to a scientific working group of the World Health Organization after a week-long meeting to review the evidence.

The International Agency for Research on Cancer (IARC) panel of experts unanimously agreed that there is now sufficient evidence to classify diesel exhaust as a group one human carcinogen, according to Christopher Portier, PhD, chairman of the working group.

"Diesel exhaust is a cause of lung cancer in human beings," Portier, director of the CDC's National Center for Environmental Health and Agency for Toxic Substances and Disease Registry, told reporters in a telephone media briefing.

There is also more limited evidence that diesel exhaust may cause bladder cancer, said Portier.

The classification is a change -- in 1989, IARC said diesel exhaust was "probably" a human carcinogen. Re-evaluating the status of diesel exhaust has been a priority for the agency since 1986.

The week-long meeting also looked at the cancer risk of gasoline exhaust fumes and agreed they remain a group 2B substance that "possibly" causes cancer in humans.

Although the working group said there is solid evidence that diesel exhaust can cause cancer, it's less clear what level of exposure is needed to increase the risk of disease.

Much of the evidence reviewed by the group focused on people with occupational exposure to diesel exhaust, according to Kurt Straif, PhD, of the IARC -- underground miners, bus drivers, and railway workers, for instance.

For those people, he said, the evidence suggests a marked increase in risk -- two- to three-fold for miners, for instance.

Evidence is more limited for people with non-occupational exposure, Straif said, but the finding of the working group "really extends to all exposures, including exposure of the general population through traffic exhaust."

On the other hand, he said, for most carcinogens risk is associated with dose. "When there is high exposure, the risk is higher and when the exposure is lower the risk is low," he said.

The evidence clearly suggests that diesel exhaust is a public health issue, commented Christopher Wild, PhD, the director of IARC. But what regulatory agencies do with the findings is up to them, he said.

"Our role has been to summarize the scientific evidence and put it into the public domain, so that governments can make decisions," he said.

But, he added, "It's really up to national and international regulatory agencies to weigh that [evidence] in the balance."



CARL FRANZEN - JUNE 28, 2012, 5:40 PM

17

Tweet

Another one bites the dust. Colorado-based thin solar panel manufacturing company Abound Solar on Thursday **announced** that it will be filing for bankruptcy next week.

The company was awarded a **\$400 million loan guarantee** from the Department of Energy in 2010, but as both the **company** and the **Energy Department** have made clear today, it only claimed about \$70 million of the total before the guarantee was frozen by the government after Abound failed to hit financial targets.

Both the Energy Department and Abound Solar blamed the company's failure on the production of cheap, standard solar panels imported by China, which have driven global prices of polysilicon solar panels — the most popular type — down to historic lows over the past year, now down to less than **80 cents per watt**.

The U.S. Commerce Department recently found some of the largest Chinese solar panel manufacturing companies — Trina and Suntech among them — to have violated international trade laws by receiving **illegal subsidies** and **"dumping,"** or flooding the market with their cheap polysilicon panels. The Commerce Department has since imposed tariffs to punish and reduce the Chinese companies and

Share

Done



U.S. can and should compete, even if it means that some government-supported companies end up going under.

“We respectfully disagree with those who are willing to cede thousands of high paying jobs and the innovations to come over the next decade and beyond to our competitors in China and around the world. Americans invented solar technology, and with the right support our companies can out-innovate and out-build any competitor, anywhere in the world.”

However, as LaVera notes, aside from freezing the loan guarantee disbursements to Abound at around \$70 million, the Energy Department was also trying to safeguard taxpayer money in another way:

“Because of the strong protections we put in place for taxpayers, the Department has already protected more than 80% of the original loan amount. Once the bankruptcy liquidation is complete, the Department expects the total loss to the taxpayer to be between 10 and 15 percent of the original loan amount.”

That equates to \$40 million to \$60 million in un-recoupable money, nothing to sneeze at, but far less than the nearly \$535 million loan guarantee that was awarded to Solyndra, most of which has been lost and is unrecoverable, according to [testimony from Energy Secretary Steven Chu](#) in late 2011. Solyndra declared bankruptcy in August 2011 and since then, Republicans, particularly those in the House, have attempted to characterize it as the albatross around the neck of the Obama Administration's clean energy push.

And while the total amount lost in the case of Abound may be less than Solyndra, it certainly doesn't help the Administration that Obama himself announced the initial loan guarantee conditional offer to Abound in [his weekly video address](#) on July 3, 2010.



filing for bankruptcy and the taxpayers are paying the tab. First there was the Solyndra loan guarantee that was rushed to closing for political reasons, then Beacon Power, and now Abound Solar is firing its workers, closing its doors, and filing for bankruptcy. President Obama should not be picking winners and losers with the taxpayers' dollars, and now we continue to see how this crony capitalism and economically unsound green energy policy simply does not work."

"We are seeing a continuing trend of these companies supported by our tax dollars going bust. In announcing this loan guarantee, Energy Secretary Chu said in July 2010, 'This project is yet another example what the Recovery Act has done in communities across the country in creating new, clean energy jobs of the future.' Sadly, Secretary Chu's vision has proven wrong. The Recovery Act is not working in communities throughout the nation while he has continued to boast of its success."

Indeed, Stearn's accusations of "crony capitalism" and, by implication, political favoritism playing any role in the granting of loan guarantees has been long echoed by other [conservative bloggers](#) and even entertained by more reputable, unbiased news outlets including [Greentech Media](#), a clean energy focused news and analysis organization that initially broke the news of Abound's imminent bankruptcy filing on Thursday. As Greentech Media pointed out, one of the private companies to invest in Abound, [Bohemian Companies](#), was founded by Pat Stryker, a billionaire and [Obama campaign donor](#).

That said, the company's largest private investor, Inrus, is run by [Raymond Debbane](#), a major Republican donor. Plus a number of Republican lawmakers — including [Indiana Governor Mitch Daniels](#) and [Indiana Senator Richard "Dick" Lugar](#) celebrated Abound's loan guarantee, as the company said it planned to take over a plant formerly owned by Chrysler in Tipton, Indiana, and add 870 local jobs by 2013, plans that never came to fruition and obviously won't now.

**TOPICS:** China, Clean Energy, Green Industries, Green Living, Solar Energy

## Department of Energy is mum after promising awards just before the holidays

- Comments & updates below -

Less than a month ago, the Department of Energy (DOE) was giving strong signals that a long-running impasse with the Office of Management & Budget (OMB) had been resolved on the pricing of premiums for federal loan guarantees for new nuclear power plants. An ebullient Warren (Pete) Miller, DOE Assistant Secretary for Nuclear Energy, (right) was quoted Dec 17 in [wire service reports](#) that “we will have loan guarantees by the end of the year.”



That time has come and gone. Today, Jan 5, a spokesman for DOE told this blog the agency is “still crossing t’s and dotting i’s.”

Asked if the dialog with OMB had been resolved, the spokesman would only say the agency is not ready to announce the winners of the loan guarantees. This outcome is a puzzle since last November Secretary of Energy Steven Chu [announced](#) a new director of the loan guarantee program.

It has been an open secret since last Spring that DOE has a [short list](#) of four projects which have passed the agency’s rigorous standards for due diligence and market readiness. However, on Dec 24, just one week after Ass’t Sec. Miller voiced considerable optimism, another DOE official threw cold water on the prospects for any awards in 2009.

### What other issues are in the mix?

The New York Times reported that [Daniel Poneman](#), Deputy Secretary of Energy, (right) said the DOE’s negotiations with energy companies on loan guarantees for “first mover” reactors “still has some distance to cover.”



According to the newspaper, DOE and OMB

[Squasonni](#) at the Carnegie Endowment who has written several mighty critical reports. Of course, it's impossible to say whether they are influential. It would be helpful if Ms. Squasonni would get some of her facts straight. For instance, Ameren would be surprised to learn there are no commercial nuclear reactors in Missouri.

## Congressional impatience surfaces

As DOE and OMB remain locked in a stalemate, Congress is getting frustrated as evidenced by a [letter](#) sent from six Senators, including Idaho's [Sen. Mike Crapo](#), to [Peter Orszag](#), the director of OMB.

There's a lot of pent up impatience in the letter. While the language is couched in the parlance of congressional budget technicalities, the message is clear. Get the lead out and get the job done. How could that not be more clear?

Secretary Chu has few good options if OMB is keeping the loan guarantees bottled up. Going over the head of the budget agency to the White House is a risky step which could backfire. Chickens could come home to roost in future bureaucratic tangles.

Also, there remains the question of whether OMB is digging in its heels on its own initiative or if there is White House pressure showing up on this front. It may take a White House intervention to clear out the tangled issues that have yet again shown the at best lukewarm support for nuclear energy coming from the Obama administration.

## Comment from Ed Kee

*Blogger's note to readers - normally comments appear in a link below an article, but this one from [Ed Kee](#) shines new light on process and expected outcomes. Full text follows.*

"I appreciate the desire to see action on loan guarantees now, but this may be inconsistent with the process.

Secretary Chu, in a 22 Dec 2009 [letter](#) to Congress outlined the DOE Loan Guarantee process and schedule.

COL approval before late 2011."

## Idaho Samizdat responds

This is my response to Ed Kee's comments which I thought were very good. I am offering readers a set of rhetorical questions. These questions will only be answered at some future time when DOE makes an official announcement about the loan guarantees.

1. Will DOE change out any of the utilities on the short list while it is making up its mind? For instance, NRG, which is one of the short-listed firms, is having a real dust-up with CPS Energy, one of its potential investors and customers, over a reported \$4 billion price increase cited by Toshiba, which is the EPC contractor for the twin 1,350 MW ABWR reactors.

CPS sued NRG and the Mayor of San Antonio is trying to get both parties to settle their differences without protracted litigation.

If the price really is going up that much, how will it affect DOE's 'due diligence' review of the financials for the project? Note that the "alternate" project on the list, if one of the top four goes south, is likely to be Luminant's Comanche Peak project with twin Mitsubishi 1,750 MW APWRs. The parent firm has its own financial difficulties which could complicate DOE's choices.

2. Does it follow that delays in awarding the loan guarantees actually work in DOE's favor since none of the utilities on short list can really use them until they get their licenses from the NRC? The earliest any licenses will be granted is 2011/2012.

By 2011 OMB may have been worn down by the stalemate, or the principals involved will have moved on to other issues or jobs. Their replacements might not be so heavily invested in the pricing issue. Also, it lowers the risk of DOE going over OMB's head, after the 2010 elections, to get a decision from the White House.

3. Do utilities really want an early decision and commitment since investors, who's loans would be guaranteed, are not going to show up until the NRC licenses are issued and the reactor projects can break ground? None of the utilities will want to pay the fees for the loan



EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF MANAGEMENT AND BUDGET  
WASHINGTON, D. C. 20503

THE DIRECTOR

May 21, 2010

The Honorable Nancy Pelosi  
Speaker of the House of Representatives  
Washington, DC 20515

Dear Madam Speaker:

It is a priority of this Administration to take strong action to increase our energy security, reduce the threat of climate change, and position the United States to lead in the development of new clean energy industries. As President Obama has said, "The nation that leads the world in creating new sources of clean energy will be the nation that leads the 21st century global economy." I know that you share this view, and I thank you for your strong leadership on clean energy issues.

To achieve our clean energy goals, we need to invest now to develop and deploy the most promising technologies. That is why in the American Recovery and Reinvestment Act as well as in the Fiscal Year (FY) 2010 and FY 2011 budgets, the Administration has dedicated significant resources to spur the development of clean energy and the creation of new jobs.

The Department of Energy's (DOE) Title XVII Loan Guarantee Program is an important tool for promoting innovation in the energy sector across a broad portfolio of clean and efficient energy technologies. The President's FY 2011 Budget proposed providing \$500 million in new budget authority to support approximately \$3 to \$5 billion in energy efficiency and renewable energy projects in addition to providing \$36 billion in loan guarantee authority for nuclear power facilities in the Title XVII Program. To help achieve the Administration's clean energy objectives in the current fiscal year we request that the Congress provide a portion of this additional loan guarantee authority as part of the supplemental appropriations bill currently under consideration or as part of another appropriate legislative vehicle. Providing this authority now would accelerate our efforts to leverage private sector investment in clean energy projects and is integral to the President's efforts to move the Nation toward a clean energy economy that will reduce America's dependency on foreign energy sources and spur the creation of new jobs.

Specifically, the Administration urges the Congress to provide \$90 million in budget authority in the supplemental to support additional loan guarantees for renewable energy projects and efficient end-use energy technology projects. These funds will be available to support the credit

subsidy costs for a wide range of innovative solar, wind, geothermal, and other renewable energy projects, as well as projects that improve how we use energy.

The President is also committed to restarting our domestic nuclear industry. Earlier this year, DOE made a conditional commitment to finance construction of what will be the first nuclear reactor to break ground in the United States in decades. To help advance new nuclear reactors, the Administration also urges the Congress to provide an equal amount of budgetary resources – \$90 million under CBO scoring conventions – to support additional loan guarantee authority for advanced nuclear power facilities. Together with existing authority, the additional authority provided by this request would enable up to three nuclear power plant projects that are currently under review to move forward to a conditional commitment in 2010. A separate request will be transmitted in the near future to the Congress to reduce the FY 2011 Budget by the amounts in this supplemental request.

To protect taxpayer interests as well as improve the efficiency of program implementation, the Administration also proposes making several amendments to the Title XVII Loan Guarantee program and Advanced Technology Vehicle Manufacturing statutes. These changes include allowing project credit subsidy costs for modifications to Title XVII loan guarantees to be paid from a combination of borrower payments and appropriated funds; expanding the Section 1705 program to include efficient end use energy technology projects; allowing the Loan Guarantee program to provide guarantees to projects at multiple sites; allowing project sponsors to be eligible for multiple loan guarantees for eligible projects under the Section 1705 program; and permitting DOE to require borrowers to pay directly or to charge fees to reimburse DOE for expenses incurred for third-party consultants and advisors to the Advanced Technology Vehicle Manufacturing program.

Thank you for your strong leadership and for your consideration of these proposals. The Administration looks forward to working with the Congress on these proposals.

Sincerely,



Peter K. Orszag

# Watchdog Says Energy Department Not Prepared for Stimulus Funds

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IAN TALLEY

WASHINGTON — The Department of Energy isn't fully prepared to successfully manage \$38 billion in Recovery Act funding, despite restructuring its protocols, the agency's inspector general said Wednesday.

In a special report, Inspector General Gregory Friedman said the agency's efforts to develop and apply a control structure to oversee spending of an unprecedented amount of funding were "partly effective and partly positive." But, the inspector general said, "additional work is necessary if the department is to successfully manage Recovery Act-related risks."

Chief among the criticisms, the inspector general said the agency couldn't determine if its systems would be able to handle the expected increased workload caused by the funding, and the agency couldn't ensure award recipients were able to accurately report required accounting and performance standards.

DOE spokeswoman Stephanie Mueller said the department welcomed the report and was working with his office to implement the recommendations, which "provide useful precautionary guidance."

Secretary (Steven) Chu has made it a major priority to ensure that every dollar entrusted to the department is spent responsibly and effectively," she said.

The report comes after years of problems with the agency's management of loan guarantees and awards by some lawmakers that the agency wouldn't be able to handle the new funding with adequate oversight.

Less than four years after Congress passed legislation authorizing the agency to guarantee loans for clean-energy projects, the agency has so far guaranteed very few.

In May, seven trade groups — including the Nuclear Energy Institute, the Solar Energy Industries Association and the American Wind Energy Association — wrote to the agency complaining of the delay in awarding more than \$100 billion in loans and guarantees.

Lawmakers were concerned that injecting more money into the agency's system would aggravate the existing bottleneck. The agency hired ex-McKinsey & Co. executive Matthew Winters to help streamline the system. Meanwhile, the White House's Office of Management and Budget mandated new funding, accountability and performance reporting of recovery funds.

Friedman also said in his report that there was a lack of communication between agency offices on Recovery Act reporting. For example, the offices of Fossil Energy and Program Analysis and Evaluation yielded job-creation estimates with "significantly different results."

Only two-thirds of the performance standards being used by the DOE weren't quantifiable, and the department hadn't developed specific metrics to measure job creation and retention, a fundamental Recovery Act objective, Mr. Friedman said.

Write to Ian Talley at [ian.talley@doe.gov](mailto:ian.talley@doe.gov)



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**ward- The Manager of the DOE Payb**

Ford has been able to take advantage of several of the Advanced Technology Vehicle Manufacturing tax credits and new vehicle development and factory retrofits from various states as well as other countries. Profits earned in the past year to pay down high interest debt will help Ford to get back from junk bond status to in

]

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# Issa warns of huge tax losses due to Solyndra, Fisker Automotive loans

By Pete Kasperowicz - 10/22/13 06:43 PM ET

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House Oversight & Government Reform Committee Chairman Darrell Issa (R-Calif.) charged on Monday that the controversial loan to Solyndra could lead to hundreds of millions of dollars in lost tax revenue for the government, beyond the \$535 million lost when the solar panel maker went bankrupt.

Issa wrote to Energy Secretary Steven Chu on Monday to ask for details about the tax implications of that loan, in the wake of reports that the tax losses from Solyndra could be as high as \$341 million. He summed up the Solyndra situation by saying the combination of loan and tax losses could put the real taxpayer cost of Solyndra at \$849 million.

In addition, Issa asked Chu to explain whether a \$529 million loan to a California auto company poses a similar risk of tax losses. Fisker Automotive received that loan in 2010 under the Advanced Technology Vehicles Manufacturing (ATVM) Program.

\*As the Committee continues

to conduct oversight on Fisker's ATVM loan, DOE is withholding important documents regarding these loans," Issa wrote in his letter. "Given DOE's noncompliance, the Committee cannot assure taxpayers that, in the case of bankruptcy, a similar subordination of taxpayer interests will not occur."

Issa cited press reports in explaining that in addition to the \$535 million lost through Solyndra's bankruptcy, the government was also hit by additional losses of up to \$341 million in tax losses. He said that loss was due to a restructuring of Solyndra's loan.

Specifically, Issa said that in 2011, the DOE combined two private investors to

DECEMBER 5, 2008, 2:43 PM ET

# Tesla Opposes Redirection of ATVM Funds

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By Marisa Wong



## The Tesla Roadster

[The Competition](#) update: You won't see Tesla Motors among the U.S. automakers currently [grouching](#) before Congress for a bailout. The Silicon Valley company, whose cars do not use gas at all, did, however, apply in mid-November for a grant from the Department of Energy's Advanced Technology Vehicle Manufacturing Incentive Program, known as ATVM. This is a \$25 billion fund earmarked for makers of ultra-fuel-efficient cars that push technology beyond the internal combustion engine.

Congress established the program in December 2007, when it passed the Energy Independence and Security Act. It became a reality in September 2008—a month before sales of U.S. cars dove to near-record levels. When Detroit automakers began jostling for stop-gap cash, the ATVM funds caught their eye, and U.S. carmakers urged Congress to redirect the funds to prop them up.

Tesla—that rarity, a solvent American car company—opposes the redirection, which its Vice President for Business Development, Diarmuid O'Connell, calls an attempt to



## Background

Solyndra filed for Chapter 11 bankruptcy protection on September 6, 2011.<sup>6</sup> However, Solyndra's deteriorating financial condition was clear to DOE in the months before the company filed for bankruptcy. In fact, DOE released the last tranche of Solyndra's loan money just months before its bankruptcy in an attempt to keep the company solvent through the midterm elections.<sup>7</sup> By this point, Solyndra had already defaulted on the loan.<sup>8</sup>

DOE made a last ditch effort to extend the life of the failing solar manufacturer by agreeing to modify the terms to its \$535 million loan in order for Solyndra to receive an additional private loan of \$75 million. Specifically, Solyndra's largest investors, Argonaut Ventures LLC (Argonaut) and Madrone Partners LP (Madrone), loaned \$75 million in return for successfully diminishing DOE's loan priority and eliminating DOE's equity interest in the case of Solyndra's bankruptcy.

In what is described in greater detail below, the loan restructuring affected tax implications beyond what would result from a simple reduction in priority relative to another lender. The restructuring eliminated DOE's ability to gain ownership over the majority of Solyndra in the event of bankruptcy and opened the door for a major tax windfall to benefit Argonaut and Madrone.

## Specific Details to Restructuring of the DOE Loan to Solyndra

Argonaut, the investment division of the George Kaiser Family Foundation, was Solyndra's largest stockholder, owning 35.73 percent of the company.<sup>9</sup> George Kaiser is a Tulsa, Oklahoma billionaire, who made his fortune in the oil business, and he also happens to be a major fundraising bundler for the campaign to re-elect President Obama.<sup>10</sup> Madrone was Solyndra's second largest shareholder, owning 11 percent of the company.<sup>11</sup>

In February 2011, DOE approved a deal whereby Argonaut and Madrone would loan \$75 million to Solyndra in exchange for priority status over DOE in recouping repayment. This restructuring also disproportionately improved Argonaut-Madrone's standing in bankruptcy vis-à-vis DOE, particularly with regard to equity interests upon default.<sup>12</sup> The reduced standing of the DOE's claim is reflected in a *TaxAnalyst* article:

<sup>6</sup> Tom Huls & Dan Levine, *Solyndra Investor Sought Tax Breaks as Bankruptcy Loomed-Filing*, Reuters, Oct. 10, 2012.

<sup>7</sup> *Opinion, The Solyndra Memorial Tax Break*, Wall St. J. at A16, Oct. 16, 2012.

<sup>8</sup> *Id.*

<sup>9</sup> Amy S. Elliott, *News Analysis: Solyndra's NOLs Post-Bankruptcy—Setting the Record Straight*, TaxAnalyst, Sept. 20, 2012; *Opinion, The Solyndra Memorial Tax Break*, Wall St. J. at A16, Oct. 16, 2012.

<sup>10</sup> Carol D. Leznick & Joe Stephens, *Top Obama Donor George Kaiser Says He Didn't Play Politics to Win Government Loan*, Wash. Post Sept. 2, 2011.

<sup>11</sup> Amy S. Elliott, *News Analysis: Solyndra's NOLs Post-Bankruptcy—Setting the Record Straight*, TaxAnalyst.

<sup>12</sup> *Opinion, The Solyndra Memorial Tax Break*, Wall St. J. at A16, Oct. 16, 2012.

[B]ankruptcy lawyers who have looked at Solyndra's plan of reorganization have expressed surprise that the shareholders (with interests in Holdings, a class 9 claim) come out unimpaired and are able to capture the tax benefits while more senior creditors (like DOE, whose loan in part constitutes a class 4 claim) are impaired with an estimated recovery of zero.<sup>15</sup>

The unusual lack of recovery to a more senior claim could only result if DOE sacrificed more than just its priority position as the senior-most lender when it restructured the loan to attract the additional \$75 million loan. In fact, it appears that DOE effectively waived any potential equity interest in Solyndra prior to bankruptcy.<sup>16</sup>

Further highlighting Argonaut-Madrone's tax strategy, the manner in which they invited other lenders to participate in the \$75 million tranche is illuminating. Argonaut-Madrone provided that, to the extent other lenders participated, they would receive a potential ownership interest in Solyndra through warrants; however, if Solyndra failed, these warrants would revert to Argonaut-Madrone.<sup>17</sup> This reversion of warrants enabled Argonaut-Madrone to maximize their share of ownership of the net operating losses (NOL), while minimizing the additional dollars they themselves would need to invest in Solyndra.<sup>18</sup> In effect, by inviting others to participate in the loan, Argonaut-Madrone reduced the extent to which it would need to risk additional funds in the sourcing Solyndra investment, while increasing the ability to gain equity interests upon default.

DOE's approval of this loan restructuring allowed the Argonaut-Madrone holding company to capture the NOLs in the Solyndra bankruptcy.<sup>19</sup> DOE is expected to recover a minimal amount of its initial \$535 million loan, while the Internal Revenue Service (IRS) warns that the government may be out up to another \$341 million due to Argonaut-Madrone's tax write offs. As IRS stated to the United States Bankruptcy Court in Delaware:

... However, if it is assumed solely for purposes herein that Reorganized Holdings will have \$875 million to \$975 million of taxable income prior to expiration of the net operating loss carryforwards and that the entirety of Holdings' estimated net operating loss carryforwards are available to be applied against Reorganized Holdings' income without limitation, and if it is further assumed that the highest current federal corporate income tax rates of 35% applies, then Reorganized Holdings would benefit from a reduction in federal income tax liability of \$306 million to \$341 million.<sup>20</sup>

<sup>15</sup> Amy S. Elliott, *New Analysis: Solyndra's NOLs Post-Bankruptcy - Setting the Record Straight*, TaxAnalysts.

<sup>16</sup> See *id.* ("Solyndra's existing equity holders maintain their interests in the reorganized entity, Holdings, so 'as far as I can tell, any shifts in equity have occurred outside the [bankruptcy] plan,' he said.")

<sup>17</sup> *Opinion, The Solyndra Memorial Tax Break*, Wall St. J.

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> *In re: Solyndra LLC*, Trial Motion, Memorandum and Affidavit, U.S. Bankruptcy Court, D. Delaware, Sept. 4, 2012.

As the IRS made clear above, these NOLs provide Argonaut-Madrona with up to nearly a billion dollars in tax deductions, unless the IRS succeeds in opposing this outcome. However, the *TaxAnalyst* article indicates that the IRS has a tough case ahead of it.<sup>19</sup> If the IRS fails, these deductions will offset income from profitable businesses that they invest in, reducing Argonaut-Madrona's tax burden by up to \$341 million dollars.<sup>20</sup>

What is most puzzling is that an OMB staffer warned that the government "is better off liquidating the assets today than restructuring under DOE's proposal."<sup>21</sup> This implies the Administration understood the tax implications of the lopsided deal yet proceeded nonetheless.

The Committee is also concerned that DOE may have similarly failed to protect taxpayers in the case of other companies that obtained DOE loans and then restructured those agreements to attract outside capital.

Fisker Automotive obtained an Advanced Technology Vehicles Manufacturing (ATVM) Program loan for \$528.7 million on April 23, 2010. Fisker's delays in launching its first vehicle, the Karma, in the United States led DOE to freeze the loan and renegotiate the financial covenants with Fisker in June 2011. Fisker recently acknowledged that its more affordable American-built automobile, the Atlantic, would not launch until late 2014 or 2015.<sup>22</sup>

Like Solyndra, DOE allowed Fisker to find additional private investors after failing to adhere to financial covenants.<sup>23</sup> However, the details of how these investments affected underlying terms to the original DOE loan are unclear. As the Committee continues to conduct oversight on Fisker's ATVM loan, DOE is withholding important documents regarding these loans.<sup>24</sup> Given DOE's noncompliance, the Committee cannot assure taxpayers that, in the case of bankruptcy, a similar subordination of taxpayer interests will not occur.

To help the Committee understand these matters, please provide the following documents:

1. Provide all documents and communications produced or received by DOE between September of 2010 and April of 2011, including e-mails, referring or relating to the tax implications of the restructuring of the Solyndra loan.
2. Provide all communications between DOE and 1) OMB and 2) Treasury, referring or relating to the tax implications as they relate to the restructuring of DOE loans to Fisker and all other 1705, 1703 and ATVM DOE loans that were restructured or modified after origination.

<sup>19</sup> Amy S. Elliott, *News Analysis: Solyndra's NOLs Post-Bankruptcy—Setting the Record Straight*, *TaxAnalyst*.

<sup>20</sup> *Id.*

<sup>21</sup> Opinion, *The Solyndra Memorial Tax Break*, *Wall St. J.*

<sup>22</sup> Deepa Seetharaman, *Fisker Atlanta Sedan Production Pushed Back at Least Two Years*, *Reuters*, Oct. 15, 2012.

<sup>23</sup> Deepa Seetharaman, *Fisker Raises \$100 MM in Fund Development*, *Reuters*, Sept. 17, 2012.

<sup>24</sup> Letter from Hon. Darrell Issa, Chairman, H. Comm. on Oversight and Gov't Reform, to Hon. Steven Chu, Secretary, U.S. DOE, Feb. 10, 2012.



The Committee on Oversight and Government Reform is the principal oversight committee of the House of Representatives and may at "any time" investigate "any matter" as set forth in House Rule X. An attachment to this letter provides additional information about responding to the Committee's request.

We ask that you provide the requested information as soon as possible, but no later than 5:00 p.m. on **November 5, 2012**. When producing documents to the Committee, please deliver production sets to the Majority Staff in Room 2157 of the Rayburn House Office Building and the Minority Staff in Room 2471 of the Rayburn House Office Building. The Committee prefers, if possible, to receive all documents in electronic format.

If you have any questions about this request, please contact Joseph Brazauskas or Peter Haller of the Committee Staff at 202-225-5074. Thank you for your attention to this matter.

Sincerely,



Darrell Issa  
Chairman

Enclosure

cc: The Honorable Elijah E. Cummings, Ranking Minority Member

# Congress of the United States

## House of Representatives

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

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### Responding to Committee Document Requests

1. In complying with this request, you are required to produce all responsive documents that are in your possession, custody, or control, whether held by you or your past or present agents, employees, and representatives acting on your behalf. You should also produce documents that you have a legal right to obtain, that you have a right to copy or to which you have access, as well as documents that you have placed in the temporary possession, custody, or control of any third party. Requested records, documents, data or information should not be destroyed, modified, removed, transferred or otherwise made inaccessible to the Committee.
2. In the event that any entity, organization or individual denoted in this request has been, or is also known by any other name than that herein denoted, the request shall be read also to include that alternative identification.
3. The Committee's preference is to receive documents in electronic form (i.e., CD, memory stick, or thumb drive) in lieu of paper productions.
4. Documents produced in electronic format should also be organized, identified, and indexed electronically.
5. Electronic document productions should be prepared according to the following standards:
  - (a) The production should consist of single page Tagged Image File ("TIF"), files accompanied by a Concordance-format load file, an Option reference file, and a file defining the fields and character lengths of the load file.
  - (b) Document numbers in the load file should match document Bates numbers and TIF file names.
  - (c) If the production is completed through a series of multiple partial productions, field names and file order in all load files should match.
  - (d) All electronic documents produced to the Committee should include the following fields of metadata specific to each document:

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PAGECOUNT,CUSTODIAN, RECORDTYPE, DATE, TIME, SENTDATE,  
SENTTIME, BEGINDATE, BEGINTIME, ENDDATE, ENDTIME, AUTHOR, FROM,

CC, TO, BCC, SUBJECT, TITLE, FILENAME, FILEEXT, FILESIZE, DATECREATED, TIMECREATED, DATELASTMOD, TIMELASTMOD, INTMSGID, INTMSGHEADER, NATIVELINK, INTFILPATH, EXCEPTION, BEGATTACH.

- Documents produced to the Committee should include an index describing the contents of the production. To the extent more than one CD, hard drive, memory stick, thumb drive, box or folder is produced, each CD, hard drive, memory stick, thumb drive, box or folder should contain an index describing its contents.
- Documents produced in response to this request shall be produced together with copies of file labels, dividers or identifying markers with which they were associated when the request was served.
- When you produce documents, you should identify the paragraph in the Committee's schedule to which the documents respond.
- It shall not be a basis for refusal to produce documents that any other person or entity also possesses non-identical or identical copies of the same documents.
- If any of the requested information is only reasonably available in machine-readable form (such as on a computer server, hard drive, or computer backup tape), you should consult with the Committee staff to determine the appropriate format in which to produce the information.
- If compliance with the request cannot be made in full by the specified return date, compliance shall be made to the extent possible by that date. An explanation of why full compliance is not possible shall be provided along with any partial production.
- In the event that a document is withheld on the basis of privilege, provide a privilege log containing the following information concerning any such document: (a) the privilege asserted; (b) the type of document; (c) the general subject matter; (d) the date, author and addressee; and (e) the relationship of the author and addressee to each other.
- If any document responsive to this request was, but no longer is, in your possession, custody, or control, identify the document (stating its date, author, subject and recipients) and explain the circumstances under which the document ceased to be in your possession, custody, or control.
- If a date or other descriptive detail set forth in this request referring to a document is inaccurate, but the actual date or other descriptive detail is known to you or is otherwise apparent from the context of the request, you are required to produce all documents which would be responsive as if the date or other descriptive detail were correct.
- Unless otherwise specified, the time period covered by this request is from January 1, 2009 to the present.
- This request is continuing in nature and applies to any newly-discovered information. Any record, document, compilation of data or information, not produced because it has not been

located or discovered by the return date, shall be produced immediately upon subsequent location or discovery.

17. All documents shall be Bates-stamped sequentially and produced sequentially.
18. Two sets of documents shall be delivered, one set to the Majority Staff and one set to the Minority Staff. When documents are produced to the Committee, production sets shall be delivered to the Majority Staff in Room 2157 of the Rayburn House Office Building and the Minority Staff in Room 2471 of the Rayburn House Office Building.
19. Upon completion of the document production, you should submit a written certification, signed by you or your counsel, stating that: (1) a diligent search has been completed of all documents in your possession, custody, or control which reasonably could contain responsive documents; and (2) all documents located during the search that are responsive have been produced to the Committee.

#### Schedule Definitions

1. The term "document" means any written, recorded, or graphic matter of any nature whatsoever, regardless of how recorded, and whether original or copy, including, but not limited to, the following: memoranda, reports, expense reports, books, manuals, instructions, financial reports, working papers, records, notes, letters, notices, confirmations, telegrams, receipts, appraisals, pamphlets, magazines, newspapers, prospectuses, inter-office and intra-office communications, electronic mail (e-mail), contracts, cables, notations of any type of conversation, telephone call, meeting or other communication, bulletins, printed matter, computer printouts, teletypes, invoices, transcripts, diaries, analyses, returns, summaries, minutes, bills, accounts, estimates, projections, comparisons, messages, correspondence, press releases, circulars, financial statements, reviews, opinions, offers, studies and investigations, questionnaires and surveys, and work sheets (and all drafts, preliminary versions, alterations, modifications, revisions, changes, and amendments of any of the foregoing, as well as any attachments or appendices thereto), and graphic or oral records or representations of any kind (including without limitation, photographs, charts, graphs, microfiche, microfilm, videotape, recordings and motion pictures), and electronic, mechanical, and electric records or representations of any kind (including, without limitation, tapes, cassettes, disks, and recordings) and other written, printed, typed, or other graphic or recorded matter of any kind or nature, however produced or reproduced, and whether preserved in writing, film, tape, disk, videotape or otherwise. A document bearing any notation not a part of the original text is to be considered a separate document. A draft or non-identical copy is a separate document within the meaning of this term.
2. The term "communication" means each manner or means of disclosure or exchange of information, regardless of means utilized, whether oral, electronic, by document or otherwise, and whether in a meeting, by telephone, facsimile, email (desktop or mobile device), text message, instant message, MMS or SMS message, regular mail, telexes, releases, or otherwise.

3. The terms "and" and "or" shall be construed broadly and either conjunctively or disjunctively to bring within the scope of this request any information which might otherwise be construed to be outside its scope. The singular includes plural number, and vice versa. The masculine includes the feminine and neuter genders.
4. The terms "person" or "persons" mean natural persons, firms, partnerships, associations, corporations, subsidiaries, divisions, departments, joint ventures, proprietorships, syndicates, or other legal, business or government entities, and all subsidiaries, affiliates, divisions, departments, branches, or other units thereof.
5. The term "identify," when used in a question about individuals, means to provide the following information: (a) the individual's complete name and title; and (b) the individual's business address and phone number.
6. The term "referring or relating," with respect to any given subject, means anything that constitutes, contains, embodies, reflects, identifies, states, refers to, deals with or is pertinent to that subject in any manner whatsoever.
7. The term "employee" means agent, borrowed employee, casual employee, consultant, contractor, de facto employee, independent contractor, joint adventurer, loaned employee, part-time employee, permanent employee, provisional employee, subcontractor, or any other type of service provider.

## Josh Voorhees, E&E reporter

Fisker Automotive Inc. will receive \$529 million in Energy Department loans to help bring two plug-in hybrid electric cars to market, the Obama administration announced today.

The Irvine, Calif., automaker is the fourth recipient of aid from DOE's "advanced technology vehicles manufacturing" program, which was created in the 2007 energy bill to help automakers meet new fuel economy and emissions standards. Ford Motor Co., Nissan North America and Tesla Motors Inc. were awarded a total of \$8 billion in loans earlier this year ([Greenwire](#), June 26).

"This investment will create thousands of new American jobs and is another critical step in making sure we are positioned to compete for the clean energy jobs of the future," said Energy Secretary Steven Chu in a statement. "Plug-in hybrid electric vehicles could revolutionize personal transportation and cut our dependence on foreign oil, not to mention give us cleaner air and less carbon pollution."

Fisker will use roughly a third of the federal cash, \$169.3 million, to help finish work on its first plug-in model, the Karma. The money will cover engineering integration costs as Fisker works with suppliers to put the finishing touches on the car and bring it to dealer showrooms next summer.

Much of the work will take place at the company's Michigan plant, but the final assembly of the autos will be done overseas, DOE said. Still, the agency noted that more than 65 percent of the materials used to manufacture the Karma will be made domestically.

Fisker will spend the remaining \$359.4 million to engineer and assemble the company's next generation of plug-in vehicles in the United States. Fisker is aiming to keep the sticker price on future models under \$40,000, after tax credits, and hopes to produce as many as 100,000 of the new cars annually by late 2012.

"This conditional loan represents a significant step in America's future," Henrik Fisker, the company's CEO, said in a statement. "With it Fisker Automotive can rapidly develop affordable clean cars that satisfy our passion for driving and help restore the U.S. as an auto industry leader."

For comparison, Tesla is receiving \$465 million to help produce the Model S, its second generation

ess created the DOE loan program in 2007, but lawmakers did not provide the funding to make the loans until last fall, when Detroit executives came to Washington to plead for federal aid. Lawmakers then scrambled to write the rulemaking that would govern the loan program in an effort to get the funds to the cash-strapped industry.

More than 75 companies submitted applications, totaling roughly \$38 billion, during the first round of the program. DOE said today that it plans to make additional loans in the coming months both to manufacturers and parts suppliers.

Ford Motor Co. and Chrysler Group LLC are still hoping to take advantage of the program. Both companies have submitted applications for roughly \$10 billion and \$6 billion, respectively, from the program. Until emerging from bankruptcy court this summer, the two companies likely failed to meet the program's financial viability threshold. But last month, both companies garnered millions in federal stimulus grants aimed at spurring the development of electric vehicles and the advanced manufacturing technologies they need, likely indicating they now qualify ([Greenwire](#), Aug. 5).

**Suggested in June that the administration was hoping that GM and Chrysler would not participate in the loan program. "There is money there, I wouldn't say set aside," DOE said. "But let's just say we are trying to stretch those dollars as far as we can."**

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## Department of Energy

Washington, DC 20585

DOE/EA-1683

### FINDING OF NO SIGNIFICANT IMPACT DEPARTMENT OF ENERGY LOAN GUARANTEE TO ABENGOA SOLAR INC. FOR THE SOLANA CONCENTRATING SOLAR POWER FACILITY NEAR GILA BEND, ARIZONA

**AGENCY:** U.S. Department of Energy, Loan Guarantee Program Office

**ACTION:** Finding of No Significant Impact

**SUMMARY:** The U.S. Department of Energy (DOE) has conducted an environmental assessment (EA) that analyzed the potential environmental impacts associated with a 280 Megawatt (MW) concentrating solar power (CSP) plant (Solana Generating Plant) and associated 230 kilovolt transmission line (Solana Gen-Tie) proposed by Abengoa Solar Inc. (Abengoa) near Gila Bend, Arizona (Solana Project). DOE, through its Loan Guarantee Program Office (LGPO), proposes to provide a Federal loan guarantee pursuant to Title XVII of the Energy Policy Act of 2005 (EPAet 05), as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, to Abengoa to support the construction and startup of the proposed facility.<sup>1</sup> The purpose of DOE's proposed action is to expedite the deployment of a new energy technology into commercial use in the U.S. and to reduce emissions of greenhouse gases and other air pollutants.

The Solana Project would use CSP technology to capture heat generated by sunlight and turn that heat into electricity. CSP works by using parabolic trough systems to concentrate energy from the sun through long, curved mirrors. Approximately 2,700 trough collectors covering roughly 1,757 acres would comprise the "solar field." The parabolic trough systems would be tilted toward the sun and focus sunlight on a pipe running down the center of the trough. Heat from sunlight would warm an organic synthetic oil, known as heat transfer fluid, which would flow through the pipe to the power island. The heat transfer fluid would serve as the working fluid of the collector field, and would provide a means for transferring the collected solar energy to the heat exchangers. The collected solar energy would be used to convert water to steam for use in a conventional steam turbine generator to produce electricity. The Solana Project would employ molten salt storage tanks to retain and store up to 6 hours of heat, which could be dispatched as needed, and would allow Solana to produce electricity on cloudy days and after sunset.

The Solana Project would interconnect to the regional transmission grid via the Solana Gen-Tie, which would originate at the Solana Generating Plant and terminate at the existing Arizona Public Service Company Panda Substation, approximately 18.2 miles east of the Solana Project. The Solana Gen-Tie would consist of transmission structures, single-circuit conductors (three wires), and two overhead ground wires, one of which would contain a fiber-optic cable to serve as a communications system for the Solana Project. The transmission structures would be steel

<sup>1</sup> The amount requested for the loan guarantee is not being disclosed at this time because it is business sensitive. Moreover, should DOE approve a loan guarantee, the amount may differ from the original request.





monopoles approximately 100 to 140 feet tall, depending on the span length required, with a maximum height of 190 feet above the ground surface.

All discussion and analysis related to the potential impacts of construction and operation of the proposed Solana Project are contained in the Final EA (DOE/EA-1683), which is incorporated here by reference. DOE examined potential impacts on the following resources and found none to be significant: floodplains; wetlands; water resources and water quality; threatened or endangered species and critical habitats; prime or unique farmlands; geology and soils; visual, recreational, and aesthetic resources; property of historic, archaeological, or architectural significance; Native American concerns; environmental justice; public health and safety; air quality; global climate change; waste management; transportation; socioeconomic conditions; noise; and terrorism-related impacts.

In accordance with applicable regulations and policies, DOE sent a notification letter regarding the Department's determination to prepare an EA to American Indian Tribes, the Arizona Department of Environmental Quality and the City of Gila Bend on July 8, 2009. The letter described the proposed action and stated that a draft EA would be sent to the state for review. On April 6, 2010, DOE sent the Draft EA to American Indian Tribes, the Arizona Department of Environmental Quality, and the City of Gila Bend inviting their comments on the draft. The Draft EA was also posted on the Loan Guarantee Program Office website. DOE received a comment letter from the Arizona Department of Environmental Quality (AZ DEQ) on April 27, 2010, requesting clarification on the use of the sewage pumps mentioned in Table 3-7 (Sound Level Specifications for Standard Packaged Equipment) of the Draft EA. Information was added to the EA indicating that these are transfer pumps which channel wastewater from cooling tower blowdown to evaporation ponds and would not involve sewage. The letter also provided additional information regarding the process for various AZ DEQ permits that were listed in the EA at Table 2-1.

**DETERMINATION:** On the basis of the Final EA, DOE has determined that providing a Federal loan guarantee to Abengoa for construction and startup of a 280MW CSP facility and its associated transmission line near Gila Bend, AZ, will not have a significant affect on the human environment. The preparation of an environmental impact statement is therefore not required, and DOE is issuing this Finding of No Significant Impact.


Copies of the Final EA are available at the DOE Loan Guarantee Program Office website at <http://www.lgprogram.energy.gov/NEPA-1.html> or from

Joseph Marhamati  
NEPA Document Manager  
U.S. Department of Energy  
1000 Independence Ave, SW  
Suite 4B-196 CF1.3  
Washington, DC 20585  
[Joseph.Marhamati@hq.doe.gov](mailto:Joseph.Marhamati@hq.doe.gov)

Additional information on the DOE NEPA process is available from:

Carol M. Borgstrom, Director  
Office of NEPA Policy and Compliance (GC-54)  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585  
202-586-4600 or 1-800-472-2756

Issued in Washington, DC on the 6<sup>th</sup> day of May in the year 2010.



Jonathan Silver  
Executive Director, Loan Programs



Abound Solar vice president Julian Hawkins, left, shows Secretary of the Interior Ken Salazar, second from left, finished solar panels during a tour of the solar manufacturing plant in Longmont, Colo., Aug. 4, 2009. (Ed Andrieski/AP Photo)



By MATTHEW MOSK (@matmosk)

March 2, 2012

A month before [Abound Solar](#) announced it would be laying off nearly half its workforce, Congressional Republicans alerted the U.S.

Department of Energy that they had questions about the decision to loan the Colorado firm \$400 million.

The House Committee on Oversight and Government Reform asked Energy Secretary Steven Chu to explain how the solar panel manufacturer had qualified for the loan after the ratings firm Fitch had determined the company would make a "highly speculative" investment.

"Fitch describes Abound as lagging in technology relative to its competitors, failing to achieve stated efficiency targets, and expecting that Abound will suffer from increasing commoditization and pricing pressures," wrote Rep. Darrell Issa, R-California, the committee chairman. "DOE's willingness to fund Abound, despite these concerns, calls into question the merits of this loan guarantee."

Issa's letter to Chu, dated January 30, came just weeks before the company announced it would lay off 180 of its 400 workers as it tries to retool to produce a more efficient type of solar panel in order to keep a technological edge on Chinese manufacturers who are flooding the market with less expensive models. So far Abound has drawn down \$70 million of its \$400 million federal loan.

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Abound Solar Inc., which received a \$400 million U.S. loan guarantee to build two factories, shut down production and fired 180 people after panel prices [fell](#) by half last year.

Abound stopped making its first-generation solar panels and will refit its manufacturing lines to produce more efficient products, the Loveland, Colorado-based company said yesterday in a [statement](#).

The move is a response to the same forces that drove Solyndra LLC into bankruptcy after it received a \$535 million loan guarantee from the same U.S. Energy Department program, said [Pavel Molchanov](#), an analyst at Raymond James & Associates Inc. in Houston.

"Abound is facing the same headwinds -- cheap crystalline silicon from [China](#) -- that made Solyndra a political football," Molchanov said today in an interview. "I think they made the right decision to conserve cash and focus on improving efficiency so they can ramp up when they're ready."

The company expects to resume full production by year-end with cadmium-telluride panels that will be able to convert 12.5 percent to 13 percent of the energy in sunlight into electricity. Its current products have conversion efficiency rates of 10.5 percent.

"By focusing our resources to accelerate scale-up of our next generation, high-efficiency technology, we will sustainably lower total system costs for our customers," Abound Chief Executive Officer Craig Witsoe said in the statement.

## Solyndra Auction

Abound has drawn \$70 million of the \$400 million guarantee and has one plant, in [Colorado](#). The closing comes a week after a bankruptcy auction of Solyndra generated sales of \$3.81 million, or less than 1 percent of the federal financing.

"We continue to believe that supporting innovative companies like this is important to ensuring our nation has the ability to compete for the clean energy jobs of tomorrow," [Damien](#)

On Friday, Republican Congressman Cory Gardner of Colorado announced he was signing on to a letter requesting that Energy Secretary Steven Chu provide documents and information regarding what the Energy Department knew about Abound Solar's actions while giving it taxpayer dollars.

"We will be sending this letter to the Department of Energy, to Secretary Chu, demanding information on technical reports, engineering reports, marketing analysis, schematics, information they had on the failure rate, the technology flaws. This is an investigation that will be launching today," Gardner said in an [interview](#) with 1310 KFKA's Amy Oliver, "but we need to have answers, the American people deserve nothing less."

Last week, The Daily Caller News Foundation published the results of an [investigation](#) of federal loan guarantee recipient Abound Solar and found that the company was knowingly selling a faulty, underperforming product, and may have mislead lenders at one point in order to keep itself afloat in order to get government funding.

"We need to know, did the Department of Energy — did they close on the loan when they knew there were technical problems with the product?" Gardner said. "The fact that we have taxpayers on the hook for \$70 million means that we, in Congress, have a responsibility to make sure nothing was done improperly."

Rep. Gardner is on the House Energy and Commerce Committee which oversees the Energy Department's loan program, from which Abound — like Solyndra — received taxpayer dollars.

Gardner said that an investigation of potential criminal activity would be left to state and local authorities.

The next day, Denver's 7NEWS [reported](#) that the Weld County's district attorney's office in northern Colorado was investigating Abound Solar, scrutinizing the company's finances.

Abound Solar announced it was filing for chapter 7 bankruptcy liquidation in June, arguing that cheap Chinese solar panels flooding the market caused their demise.

"With over \$30 billion in reported government subsidies, Chinese panel makers were able to sell below cost and put Abound out of business before we were big enough to pose a real competitive threat to China's rapidly growing market share," according to the prepared congressional [testimony](#) by Craig Witsoe, former CEO of Abound.

Chinese competition did hurt the company's success, but that only added to Abound's existing problems with their panels, according to sources.

Testimony from sources within Abound show the company knew panels were faulty prior to obtaining taxpayer dollars, according to sources, but kept pushing product out the door in order to meet Department of Energy goals required for their \$400 million loan guarantee.

"Our solar modules worked as long as you didn't put them in the sun," an internal source from Abound told TheDC News Foundation.

Abound's faulty panels had high expected failure rates — as high as 77 percent in five years for some panels. Documents also show the total known and estimated failures for 2012 was put at 156,983 — out of 620,106 solar modules sold.

One source specifically said it was DOE metrics that caused Abound to keep producing and selling bad products.

attention to the lack of quantity, echoed another source.

Abound may have also committed fraud in order to obtain a bridge loan to keep themselves afloat in the weeks leading up to closing the Energy Department loan guarantee by using fake accounts receivable as collateral for the loan.

"We collateralized the loan with fake [accounts receivable] (the customer had canceled the order so the revenue should have been reversed but we kept it on the books for the banks benefits)," wrote one source in an email to the DC News Foundation.

"In my professional opinion I think that was fraud because there was no accounts receivable, it was a cancelled sale," that same source later told TheDC News Foundation in an interview.

"These are solar panels we are now seeing reports that said they worked as long as you didn't put them in the sun," said Rep. Cory Gardner, R-Colo. "Now the question is did the (Department of Energy) — did they know something that the rest of should have known? Did Abound not tell the DOE something? These are questions that need to be answered."

Gardner told 1310 KFKA's Amy Oliver he expects the DOE to respond to his letter soon — within the next ten days.

[Follow Michael on Twitter](#)

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**APPROPRIATIONS BILL, AS REPORTED**  
**OFFERED BY MR. TERRY OF NEBRASKA**

At the end of the bill, before the short title, insert  
the following new section:

1       SEC. 503. None of the funds made available by this  
2 Act may be used to fund the Advanced Technology Vehi-  
3 cles Manufacturing Incentive Program under section 136  
4 of the Energy Independence and Security Act of 2007  
5 until the Secretary of Energy reports to Congress on the  
6 progress of such program, and updates the Chairman and  
7 Ranking Member of the Committee on Energy and Com-  
8 merce of the House of Representatives on the status of  
9 the applications currently under review, highlighting spe-  
10 cifically why no applications for small businesses or small  
11 loan amounts of less than \$50,000,000 have been ap-  
12 proved to date.

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electric vehicle

battery company, that is considered in great danger (<http://nlpc.org/stories/2012/02/09/will-doe%E2%80%99-fisker-doubts-take-down-its-battery-supplier-too>)

due to its dependency on troubled (<http://nlpc.org/stories/2012/02/08/many-unanswered-questions-surround-fisker-layoffs>) EV company Fisker Automotive

(<http://nlpc.org/category/keywords/fisker>), has awarded its top executives big salary increases

(<http://boston.citybizlist.com/?/2012/2/14/A123-Boosts-Compensation-as-Stock-Bottoms-Out---cbl.aspx>) despite a steep downward trajectory in its stock price.

Massachusetts-based A123 Systems (<http://nlpc.org/category/keywords/a123-systems>) -- which received \$279.1 million (<http://nlpc.org/stories/2011/12/02/taxpayer-funded-green-job-losses-easy-a123>) in stimulus money (<http://nlpc.org/category/keywords/stimulus>) from the Department of Energy (<http://nlpc.org/category/keywords/department-energy>), and up to \$135 million in incentives from the State of Michigan -- boosted the base salaries of two vice presidents and its chief financial officer on February 8.

Chief Financial Officer David Prystash was bumped 27 percent to \$380,000; VP of Energy Solutions Robert Johnson's base salary increased 51 percent from his 2010 level to \$400,000; and VP of Automotive Systems Jason Forcier saw his pay rise 32 percent from 2010, to \$350,000. The news was first reported by (<http://boston.citybizlist.com/?/2012/2/14/A123-Boosts-Compensation-as-Stock-Bottoms-Out---cbl.aspx>) the Boston Web site of Citybizlist.com, which obtained the information from an A123 SEC filing ([http://sec.gov/Archives/edgar/data/1167178/0001104659120009687/a12-5013\\_18k.htm](http://sec.gov/Archives/edgar/data/1167178/0001104659120009687/a12-5013_18k.htm)).

A123 had laid off 125 employees ([http://www.mlive.com/business/detroit/index.ssf/2011/11/a123\\_systems\\_pink\\_slips\\_125\\_mi.html](http://www.mlive.com/business/detroit/index.ssf/2011/11/a123_systems_pink_slips_125_mi.html)) in November at its two plants in Livonia and Romulus, Mich. Company officials said diminished production by Fisker led to the cutbacks. A123 had expected to deliver batteries for 7,000 plug-in hybrid Karma models, but faulty wire harnesses in the vehicles reduced Fisker's production to 1,500 for 2011, according to Crain's Detroit Business (<http://www.craindetroit.com/article/2011/12/8/FREE/11129946/a123-systems-lays-off-125-workers-at-livonia-romulus-plants>). Also, in December A123 had to repair dozens of its batteries (<http://online.wsj.com/article>





# Murkowski: Implementation of DOE Loan Programs Requires Reform

Office of Senator Murkowski 5 hours 3 minutes ago

WASHINGTON, D.C. – U.S. Sen. Lisa Murkowski, R-Alaska, today expressed a willingness to reform the Department of Energy's loan programs but said that if she had to grade DOE's handling of the programs "not receive a passing grade."

Comments came during the Senate Energy and Natural Resources Committee's long-awaited oversight hearing, which was scheduled only after completion of an audit by former Fannie Mae CEO Herb Allison. Murkowski had been calling for a hearing on DOE loan programs since last September.

"Even if it is vital for our committee to conduct regular and intensive oversight of the programs and

activities under our jurisdiction, especially when serious or unexpected problems begin to surface," Murkowski said. "This is one of the more complicated topics that our committee will tackle. These programs involve related authorities – and the Energy Department's use of them – span different administrations, multiple congresses and include three separate programs, each with their own unique attributes."

At Wednesday's hearing, Murkowski asked Allison and Energy Secretary Steven Chu about the structure and implementation of DOE's loan programs, including warning signs that were missed before a loan guarantee was granted to Solyndra and the merits of having applicants pay their own credit subsidy costs.

Murkowski believes DOE's loan programs have a place in federal energy policy, but only if implemented in a way that better protects taxpayers from losses associated with unwise or poorly-structured investments. Her hearing marked a first step in that effort.

"We didn't expect every single project to be a roaring success, but we also didn't expect an accumulation of problems so quickly. There are clearly problems that need to be sorted through and worked out," Murkowski said.

[For Murkowski's opening statement.](#)

# Another Green Failure: A123 Files for Bankruptcy

Michael Sandora |

October 16, 2012 at 10:58 am

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A123, recipient of a \$249 million Department of Energy manufacturing grant, warned of impending debt default and cash problems that [forced the company to seek bankruptcy protection](#).

With 14 straight quarterly losses—nearly \$83 million in 2nd Quarter 2012 and \$125 million in the previous quarter, on top of \$258 million in 2011, [reported here on Scribe](#), the company hoped to change its fortunes with an infusion of investor cash from China.

An August “memorandum of understanding” between A123 and Chinese auto manufacturer

Livonia, Michigan, that the company received the U.S. grant to help build.

*"This is about the birth of an entire new industry in America — an industry that's going to be central to the next generation of cars," Obama said in the phone call, according to a transcript provided by the White House. "When folks lift up their hoods on the cars of the future, I want them to see engines and batteries that are stamped: Made in America."*

Just yesterday, [Bloomberg reported](#) the company's lack of cash:

*A123 Systems Inc. (AONE), the maker of lithium-ion batteries for electric cars, said it may run out of cash to fund operations and may need to seek bankruptcy protection.*

*A123 expects to be in default under material debt agreements today, the Waltham, Massachusetts-based company said yesterday in a regulatory filing. A123 didn't expect to be on time with an interest payment due yesterday on \$143.8 million of notes expiring in 2016, or to make a payment due yesterday on \$2.76 million in outstanding 6 percent notes, according to the filing.*

*"The company may not have sufficient cash to fund operations and may need to seek the protections provided under the U.S. Bankruptcy Code," A123 said. "No assurance can be given that the company will be able to avoid restructuring, reorganization, or a bankruptcy filing."*

Bloomberg could not confirm Wanxiang's position, with a number of calls to the company going unanswered.

A123 admitted its inability to continue on a "losing account" unless it is able to find cash, and

June 2012, as well as extensions of production goals. The company also claimed an additional \$14 million in other DOE research and development grants.

In May, A123 withdrew a \$233 million loan application to the DOE for its Advanced Technology Vehicles Manufacturing program, claiming that the ATVM loan was unnecessary at the time.

However, A123 admitted its cash burn rate—from \$113.1 million to \$47.7 million by 2nd Quarter 2012—as a direct statement on the company's continued viability:

*The above circumstances raise substantial doubt on the Company's ability to continue as a going concern. Management is taking actions to raise additional capital to fund cash requirements and evaluating other strategic alternatives. The Company is actively engaged in discussions with strategic partners for substantial investments in the Company... Management also continues to seek to reduce cash used in operating and investing activities, including by improving the Company's gross margins, reducing operating expenses, and reducing working capital. Although the Company's intent is to improve its operating efficiencies and to obtain additional financing, there is no assurance that the Company will be able to obtain such financing on favorable terms, if at all, or to successfully further reduce costs in such a way that would continue to allow the Company to operate its business.*

Posted in [Energy and Environment](#), [Ongoing Priorities](#), [Scribe](#)

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The IDEA, a vehicle produced by Bright Automotive ([BrightAutomotive.com](http://BrightAutomotive.com)) / February 20, 2012

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### [Win Win: Be Green & Save](#)

By [Julie Wernau](#), Chicago Tribune reporter  
9:00 p.m. CST, February 29, 2012

Indiana's once bright future as the electric vehicle capital dimmed Wednesday with the loss of yet another plug-in company.

Bright Automotive, based in Anderson, Ind., and with plans to deliver 300 manufacturing jobs to the state by this year, announced Wednesday that it will wind down operations after withdrawing an application for a loan from the Department of Energy's Advanced Technology Vehicle Manufacturing program.

business is risky and new technologies move so. That's why, unlike the federal government, Indiana's incentives are always conditional on new jobs actually happening," Daniels said in a statement Wednesday.

Bright Automotive incorporated in 2008 after being spun out of a consortium of Google.org, the Rocky Mountain Institute, the Turner Foundation, **Alcoa** and **Johnson Controls**. It said its loan application had been pending since it was deemed "substantially complete" in December 2008. At the Energy Department's request, the company said it formed a strategic partnership with **General Motors** and had lined up private capital commitments exceeding \$200 million. But it still needed a \$314 million Energy Department loan to move forward with production plans.

"We understand that this is a difficult day for Bright Automotive and their workers. Over the last three years, the department has worked with the company to try to negotiate a deal that supported their business while protecting the taxpayers. In the end, we were not able to come to an agreement on terms that would protect the taxpayers," said Energy Department spokesman Damien LaVera.

In a scathing letter dated Tuesday to Energy Secretary **Steven Chu**, Bright Automotive Chief Executive Reuben Munger and Chief Operating Officer Mike Donoughe described an overly bureaucratic process and called the department ineffective in its mission to meet President **Barack Obama's** goal of adding 1 million plug-in vehicles to the road by 2015.

The company said the department's constantly changing terms, outlined in a series of "near final" commitment letters, forced the company "to say 'uncle.'"

"The actions — or better said 'lack of action' — by your team means hundreds of great manufacturing and technical jobs, union and non-union alike, and thousands of indirect jobs in Indiana and Michigan will not see the light of day," the executives said in their letter.

Bright had received incentive packages at the state, county and local levels in Indiana and Michigan in its quest to build a plug-in hybrid commercial vehicle. Officials in Indiana and Michigan did not respond to requests for information about the status of incentives.

The company said it was told several times that it was weeks away from approval.

"We asked our team members on countless occasions to work literally around the clock whenever yet another new (Energy Department) requirement came down the pike," they wrote.

The department's most recent set of conditions, combined with the loan unit, the

# Lithium and Obama's Electrification of America

[Commodities](#) / [Metals & Mining](#) Aug 13, 2009 - 02:50 PM

by [Richard Mills](#)



Commodities



America's future energy course is being charted today because of the ramifications of peak oil, because car pollution is too much, because of global warming, because America wishes to end her dependence on foreign supplied energy and to be blunt... Americans need jobs.

## Will Bernanke's Secret Debt Solution End The Financial Crisis?

[Commodities](#) / [Metals & Mining](#) / [Daily](#)

"The new energy economy is going to be part of what creates the millions of new jobs that we need," President Obama said.

Because of these reasons a whole new industry, a domestic automotive and industrial lithium-ion battery industry, is going to be built.

President Obama recently said, when announcing US\$2.4 billion in grants to accelerate the manufacturing of next-generation car batteries and electric vehicles, "I'm committed to a strategy that ensures America leads in the design and the deployment of the next generation of clean-energy vehicles. This is not just an investment to produce vehicles today; this is an investment in our capacity to develop new technologies tomorrow."

Obama's plan is to have one million electric cars on U.S. roads by 2015. JPMorgan predicts hybrid sales will reach 9.6 million cars three years later. Global Strategic Analysts predicts that the market for lithium-ion batteries is likely to grow at a compound annual growth rate of over 32% through 2010. With an increased demand for hybrid automobiles this growth rate will continue.

Commodity rules rule! Will electrification ignite a lithium boom?

Only time will tell. But with lithium batteries going to play a key role in the auto industry and eventually appearing throughout the electrical grid it's entirely plausible, in this author's humble opinion, that lithium is the next big break out investment.

's billions and billions of dollars, courtesy of the government's stimulus package, still to come (Washington has already handed out US\$8 billion in loans) for advanced battery technology R&D companies and battery manufacturers. The auto industry is gearing up to make its first real go at marketing plug-in vehicles for the masses. The start flag has dropped and the race to build lithium-ion batteries for vehicles has begun.

China does not develop a lithium-ion battery manufacturing sector at home it may very well be shut out of the electric car business – he who makes the batteries will also make the cars. Lithium demand will skyrocket as more and more hybrids roll down the assembly line. Current processing potential is limited, making it difficult to market disruption. And limited supplies could mean big profits for lithium miners and producers.

It is extremely hard to believe that any politician or lobbyist would consider sourcing the needed supplies for the world's Energy Revolution from offshore suppliers and risk the same foreign dependence as they have to date with oil. Politicians will fight tooth and nail to avoid importing lithium or lithium-ion batteries.

Why is there so much money being thrown around and because lithium is the key ingredient to make the world's electric cars viable it shouldn't come as a surprise to anyone if investors are smiling with glee over the prospects of a huge boom in the prices of their favorite lithium explorers and producers.

Will the Electrification of America become unplugged?  
The U.S. Government Accountability Office, in a report to congress, warned that by switching from gas-powered cars to lithium battery powered cars the U.S. might simply "substitute reliance on one foreign resource for another."

Obama's campaign ... ran on a plank based on ending foreign oil dependence, and it is unlikely that voters will want to see the U.S. transfer this dependence to lithium." Said the Council On Hemispheric Affairs, Washington, D.C.  
Obama said this during his election campaign.... "Finding the new driver of our economy is going to be critical. It's no better driver that pervades all aspects of our economy than a new energy economy... That's going to be our No. 1 priority when I get into office." President Obama



most important physicist, energy Secretary [Steven Chu](#), to step up to the plate and explain to Americans why he is not worried. Instead, the Secretary is missing in action.

At first glance, the events at Fukushima seem like a perfect illustration of Murphy's Law – "If something can go wrong, it will." First the plant was hit by an earthquake seven times stronger than it was designed to withstand, but withstand it did. Control rods were immediately lowered into the core and the chain reaction stopped. Backup power kicked in.

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Then a massive tsunami hit the plant, reportedly demolishing several key installations and knocking out the backup power. The plant continued to run on emergency power.

When the emergency power ran out, the backup emergency power didn't work (due to backup facilities using the wrong plugs, according to some reports). Hydrogen buildup from the rapidly heating core caused explosions in the shell (which is designed to keep the elements out, not radiation in). Attempts to cool the reactor with seawater started too late, leading to the fuel rods being exposed rather than covered in coolant.

Fortunately, even Murphy's Law has its exceptions. Despite all these problems, the reactor – at this writing – was damaged but not yet in meltdown. No one

had been exposed to dangerous amounts of radiation and no dangerous material had been released into the surrounding environment. In other words, despite virtually everything going wrong in unforeseeable ways, the reactor has as yet caused no wider harm to people.

Yet you wouldn't know that from the loud calls by politicians and environmental advocacy groups for the United States to abandon nuclear power, claiming it is inherently dangerous.

The Obama administration, to its credit, disagrees. Its proposed energy plan relies on the building of 100 new nuclear reactors in the near to medium term, to allow us to replace coal as America's main generator of electricity. During Monday's [White House](#) press briefing, spokesmen from the Department of Energy and the Nuclear Regulatory Commission told reporters that the events in Japan gave no reason to abandon this plan.

Such statements from middle-rank officials are likely to be ignored, and could thus hobble the president's own [energy policy](#). Yet sitting near [President Obama](#) around the Cabinet table is our energy secretary who just also happens to be a Nobel-prize winning physicist. Steven Chu has both the authority and the credibility to put paid to scaremongering and refocus America's energy debate to where it should be: the price of oil.

So far, however, Secretary Chu has shown no willingness to tackle public fears regarding the crisis in Japan, beyond a few words of boilerplate at a House hearing on the Energy Department budget on Tuesday morning. One would assume that the White House would want Dr. Chu to be actively making the case for its energy policy—unless they think that the Secretary is simply not up to the job.

This is especially unfortunate when you consider environmentalists are always crying "look at the mess we've made with nuclear"



[Bright Automotive](#) will shut down after the maker of the extended-range plug-in utility vehicles said the federal government took too long to make good on its planned loans to the Michigan-based company, the *Wall Street Journal* reports, citing a letter company executive sent to U.S. Energy Secretary Steven Chu yesterday.

Bright Automotive, which applied for about \$400 million in loans in 2008, had been told [for the past 18 months](#), that the loan was close to funding, but things just took too long. Bright warned the DOE that time was running short just a week ago, saying "If our ATVM application is not moved forward to the next level by March 2, 2012, our mission ends. Period." Yesterday's letter says, in part:

*Last week we received the fourth bear final Conditional Commitment Letter since September 2010. Each new letter arrived with more onerous terms than the last. The first three were workable for us, but the last was so outlandish that most rational and objective persons would likely conclude that your team was negotiating in bad faith.*

(Find the full text of the harshly worded letter [after the jump](#).)

The company, which also received a \$5 million equity investment from General Motors, had planned to use an old [Hummer plant](#) in Indiana to build its Bright Idea utility van by 2014, the *Journal* said, but [reports of problems have surfaced before](#).

Bright Chief Operating Officer Mike Donoughe [made a public statement](#) late last month saying it was ready to add as many as 2,500 direct and indirect jobs through its vehicle production but needed its loan request to be processed "swiftly." [Ford](#), [Nissan](#) and [Fisker](#) are among advanced-powertrain vehicle makers that have received loans from the federal government.

program is an unmitigated disaster."

Brylawski, who co-founded Bright and was an executive vice president there, told Autoblog the biggest question is about the ATVM program itself. When the government says it will dump billions of dollars into the economy, that changes things, he said. "In theory, this is not a hostile administrator," he said, so the disconnect between the expressed promotion on one hand and delays on the other is incredible. "[The delay] hasn't only distorted the market, it's distorted the way out the door on the other is incredible. "This program is an unmitigated disaster. There needs to be some real answers for our community."

Bright said a vehicle that would be able to go about 40 miles on electric power alone is a game-changer. The generator kicked in to give the van a range similar to that of the [Chevrolet Volt](#). Bright said the program was created in 2007 by a consortium of Google.org, the Rocky Mountain Institute, the Turner Foundation, and the National Highway Traffic Safety Administration's Vehicle Safety Controls.

What's next? Brylawski said that the technology and engineering in the van remains an asset, but the program is "so far off" that they're trying to get value from that, but Bright Automotive is winding down. "The business model for the product still has merit, and the vehicle was really progressing to be something special (as pictured above) is almost three years old, but because there is a need to protect the intellectual property, Bright can't disclose images of the updated van, but "it was looking awesome," he said. What you see here may appear next.

*Autoblog.com contributed to this report.*

# States that could lose loans and jobs under House continuing resolution

Applications for Advanced Technology Vehicle Manufacturing Program

State	Number of applications	Projects	Status	Total \$ (millions)	Estimated jobs created from loan	State unemployment % Aug. 2010
California	3	Hydrogen fuel cell, electric vehicle, advanced battery	Due diligence	\$925	4,100	12.1
Alabama	1	Electric vehicles	Due diligence	\$50	222	10.7
Alabama	3	Diesel, hybrid van, advanced battery	Late stage negotiations	\$950	4,222	8.7
Alabama	1	Very efficient internal combustion engine	Late stage negotiations	\$375	1,667	7.2
Illinois	3	Advanced battery, electric vehicle	Late stage negotiations	\$700	3,111	11.2
Illinois	2	Advanced battery, diesel	Due diligence	\$450	2,000	11.2
Michigan	2	Electric vehicle, hybrid van	Due diligence	\$325	1,444	8.8
Michigan	1	Advanced battery	Due diligence	\$525	2,333	9.1
Mississippi	1	Various technologies	Late stage negotiations	\$4,000	17,778	
Mississippi	1	Various technologies	Due diligence	\$1,500	6,667	
	<b>18</b>			<b>\$9,800</b>	<b>43,544</b>	

Source: Department of Energy via Capitol Hill sources; Bureau of Labor Statistics, Department of Labor

Summary of Names of ATVM Loan Applicants and their Requested Loan Amounts Submitted under Section 136 of the 2007 Energy Independence Act

	Project Description	Requested Loan Amount	Information Withheld
1	XP Vehicles	\$40,000,000	
2	Chrysler	\$8,550,000,000	
3	Tesla	\$588,000,000	
4	GM	\$3,800,000,000	
5	Ford	\$11,000,000,000	
6	Coherix	\$10,000,000	
7	Bright Auto	\$450,000,000	
8	Goodyear	\$944,000,000	
9	GM II	\$4,700,000,000	
10	AMP	\$20,000,000	
11	Delphi		5.U.S.C. 552(b)(4)
12	Saturn Electronics		5.U.S.C. 552(b)(4)
13			5.U.S.C. 552(b)(4)
14	Futuris Automotive		5.U.S.C. 552(b)(4)
15	ZAPI Motor Manufacturing	\$200,300,000	
16	BG Auto	\$150,000,000	
17	Continental	\$278,000,000	
18	MAGNA	\$65,200,000	
19	Van-Rob	\$21,400,000	
20	Concord International		5.U.S.C. 552(b)(4)
21	Lear Corporation	\$120,000,000	
22	U.S. Manufacturing Corporation	\$95,000,000	
23	Nissan North America, Inc.	\$1,630,000,000	
24	A123	\$1,000,000,000	
25	ArvinMeritor OE	\$115,400,000	
26	Metaldyne	\$32,120,000	
27	Motor Trike, Inc. / Thoroughbred Motorsports, Inc.	\$12,600,000	
28	Aptera Motors, Inc.	\$75,000,000	
29	Millwind R&D	\$20,000,000	
30	Tenneco	\$24,110,000	
31	ZF Group - 8sp.		5.U.S.C. 552(b)(4)
32	ZF Group - Axle		5.U.S.C. 552(b)(4)
33	Federal Mogul	\$79,300,000	
34			5.U.S.C. 552(b)(4)
35	Acument	\$8,000,000	
36	Quantum Tech	\$175,000,000	
37	Pittsburgh Glass Works	\$12,415,000	
38	Microslaq	\$10,540,000	
39	A.G. Simpson	\$25,832,000	
40	Sekou	\$13,920,000	
41	Sabó	\$20,000,000	
42	Enerdel	\$384,100,000	

Summary of Names of ATVM Loan Applicants and their Requested Loan Amounts Submitted under Section 136 of the 2007 Energy Independence Act

43	ElectroRides	\$2,000,000	
44	Gill Industries	\$4,309,000	
45	American Axle & Manufacturing	\$11,960,000	
46	Electrovaya	\$240,000,000	
47	Eaton	\$28,685,000	
48	Vehicle Production Group	\$34,406,000	
49	Transonic Combustion	\$156,000,000	
50	Jordan Engineering	\$25,000,000	
51	EcoMotors	\$20,851,000	
52	Cooperative Energy	\$800,000	
53	Good Earth	\$24,000,000	
54	Imara Corp.		5 U.S.C. 552(b)(4)
55	Stoneridge - Hyd Actuators		5 U.S.C. 552(b)(4)
56	Stoneridge - Steering Torque		5 U.S.C. 552(b)(4)
57	Stoneridge - Turbo Controls	\$3,412,000	
58	Meridian Auto	\$11,164,000	
59			5 U.S.C. 552(b)(4)
60	THB America	\$1,980,000	
61	Wrightspeed	\$40,000,000	
62	Phoenix Motors		5 U.S.C. 552(b)(4)
63	Ruff & Tuff	\$14,000,000	
64	ALTe	\$60,000,000	
65			5 U.S.C. 552(b)(4)
65b			5 U.S.C. 552(b)(4)
67	Dynamic Free Piston	\$20,000,000	
68	Fisker I	\$145,300,000	
69	Fisker II	\$318,800,000	
70	Magnesium Auto Group	\$2,000,000	
71	Energy Systems Network		5 U.S.C. 552(b)(4)
72	Renosol Corp.	\$11,867,000	
73	Remy		5 U.S.C. 552(b)(4)
74	Fast Skins	\$7,000,000	
75	Metal Forming and Coining	\$15,000,000	
76			5 U.S.C. 552(b)(4)
77	Electric Motors Corp.	\$115,680,000	
78	KleenSpeed	\$1,600,000	
79	Electrocharger	\$5,500,000	
80	Revolution Motors	\$40,000,000	
81	Limnia, Inc	\$15,000,000	
82	BorgWarner	\$27,600,000	
82a	V-Vehicle #1	\$78,400,000	
82b	V-Vehicle #2	\$264,600,000	
83	Key Safety Systems	\$3,900,000	
84	Bio-endocrinology	\$1,905,000	
85	Carter Group	\$5,100,000	

Summary of Names of ATVM Loan Applicants and their Requested Loan Amounts Submitted under Section 136 of the 2007 Energy Independence Act

86	GM III	\$2,500,000,000	
87	Brammo Motorcycles	\$45,000,000	
88	Vectrix Corporation	\$32,000,000	
89	Valence	\$608,000,000	
90	EV Innovations	\$1,300,000,000	
91	Wirco, Inc	\$40,800,000	
92	SmartEarth Systems	\$17,825,000	
93	Wind Works	\$1,680,000,000	
94	Johnson Controls	\$25,100,000	
95	Bailey Tool & Manufacturing	\$9,800,000	
96	BioTrike	Grant	
97	Think North America		5.U.S.C. 552(b)(4)
98	Severstal Int.	\$741,000,000	
99	EnVironmental Transport Solutions, LLC	\$3,870,000	
100	T3 Motion	\$45,000,000	
101	Tinnerman	\$13,100,000	
102	Cordovano	\$345,777	
103	Local Motors	\$24,341,500	
104	Enova Systems	\$10,458,126	
105	Bannon Automotive	\$40,000,000	
106	STANT	\$3,750,000	
107	Raser Technologies	\$520,000,000	
108	CVRD, LLC	\$12,800,000	

## Substantially Similar Attributes Determination

Under Section 136, Advanced Technology Vehicles (ATV) must have at least 125% of the average base year combined fuel economy for vehicles with “substantially similar attributes.” The Department of Energy (DOE) has determined that model year (MY) 2005 will be used as the base year for the determination of vehicle attributes and fuel economy. Details concerning the determination and calculation methods for “substantially similar attributes” are presented below.

### Use of existing EPA Vehicle Fuel Economy Classes

To identify vehicles with substantially similar attributes, DOE relied in part on EPA’s existing 2005 vehicle classes to establish appropriate vehicle classifications. For MY 2005, EPA segmented the U.S. vehicle fleet each into classes of vehicles for the purpose of fuel economy comparisons between vehicles with similar characteristics. DOE based its identification of vehicles with “substantially similar attributes” for the purpose of the ATV definition on the EPA classes. DOE further segmented vehicles into performance classes where appropriate, as explained below. The initial EPA classes plus the addition of performance subclasses (and consolidation of two categories) resulted in 18 categories that define the vehicles with substantially similar attributes as shown below:

EPA Vehicle Class Definitions*	EPA Vehicle Classes	EPA Vehicle Classes plus Performance Classes**
Any vehicle designed to seat two adults	Two Seater	Two-Seater
		Two-Seater Performance
< 85 ft <sup>3</sup>	Mini-compact Sedan	Minicompact Sedan
		Minicompact Performance Sedan
85-99 ft <sup>3</sup>	Subcompact Sedan	Subcompact Sedan
		Subcompact Performance Sedan
100-109 ft <sup>3</sup>	Compact Sedan	Compact Sedan
		Compact Performance Sedan
110-119 ft <sup>3</sup>	Midsize Sedan	Mid-Size Sedan
		Mid-Size Performance Sedan
120 ft <sup>3</sup> or more	Large Sedan	Large Sedan
<130 ft <sup>3</sup>	Small Wagon	Small Wagon
130-159 ft <sup>3</sup>	Midsize Wagon	Mid-Size and Large Wagon
160 or more	Large Wagon	
< 6000 lbs	Small Pickup	Small and Standard Pickup
6000-8500 lbs	Standard Pickup	
< 8500 lbs	Passenger Van	Passenger Van
< 8500 lbs	Minivan	Minivan
< 8500 lbs	Cargo Van	Cargo Van



*\*\*Several EPA classes are merged into a single DOE vehicle class because the EPA category contained no vehicles in Model Year 2005. The Special Purpose class, which includes vehicles that do not fit into another class, does not group vehicles with similar attributes and is not used.*

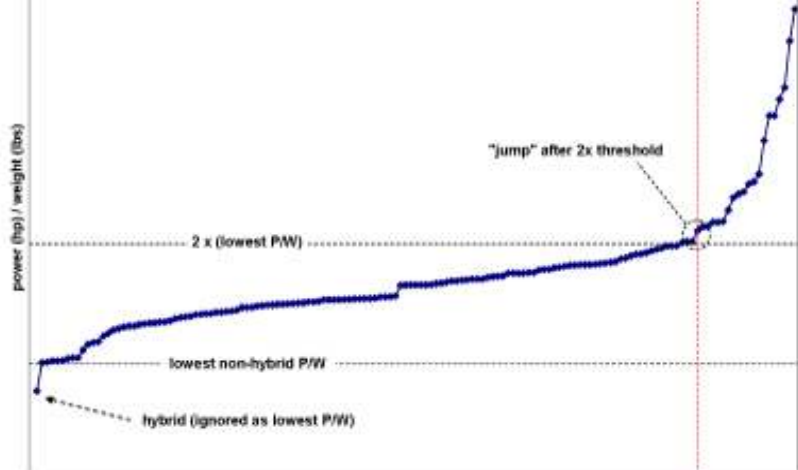
DOE notes that in MY 2005, not every EPA class was populated with vehicles manufactured in MY 2005 (i.e., large wagons and small trucks). In those instances, DOE combined classes in a manner consistent with grouping vehicles by “substantially similar attributes.” The large wagon class was combined with the mid-size wagon class, and the small pickup class was combined with the standard pickup class.

### **Creation of Performance Classes**

EPA’s vehicle classes combine vehicles with wide variation in vehicle power and weight, so DOE examined each vehicle class to identify the potential for subclasses. Within five of the EPA classes there was an apparent delineation based on comparison of power to weight ratio that supported creating performance subclasses. Performance classes were established by ranking vehicles by power-to-weight ratio, calculated by dividing a vehicle’s peak power (measured in horsepower (hp)) by its curb weight (measured in pounds (lbs))\*.

For classes in which the highest power-to-weight ratio (P/W ratio) of a vehicle in that class exceeded the lowest non-hybrid P/W ratio of a vehicle in that class by more than 100% (i.e. more than twice the lowest P/W ratio), the class was divided into a performance and a non-performance segment, except in cases where there was no clear point to divide the class (see below) or where division of the class would have created a performance class with very few vehicles. In classes in which a hybrid vehicle had the lowest P/W ratio, the lowest non-hybrid P/W ratio was used as a means for comparison. Hybrids were considered an inappropriate lowest point on a P/W chart because the maximum power information for hybrids (reported in hp) only includes power from the engine, and does not include the contribution of the hybrid system (usually measured in kW). This method of reporting results in a lower reported P/W than the likely actual P/W, since total power of the vehicle available is the sum of engine power and maximum hybrid power.

The division of a class into performance and non-performance classes was made at the point along the P/W line at which there was an apparent increase in the P/W values. Visually, this increase appeared as a jump on a plot of P/W ratios ranked in increasing order, as shown below:



The P/W evaluation resulted in the creation of five performance classes - two-seater performance, mini-compact performance sedan, sub-compact performance sedan, compact performance sedan, and midsize performance sedan. Conversely, because other vehicle classes—large Sedans, all classes of wagons, small and standard pick-ups, all classes of vans, and sport utility vehicles—have relatively flat P/W curves or narrow P/W ranges across the entire class, DOE did not create performance classes in those categories.

### Average MY 2005 Combined Fuel Economy For Vehicles with Substantially Similar Attributes

In order to identify the average fuel economy for vehicles with substantially similar attributes, DOE calculated the harmonic production weighted average fuel economy for each class identified by DOE. DOE calculated the average fuel economy for each vehicle class using a harmonic production weighted average as illustrated below:

$$MPG = \frac{\#VehicleA + \#VehicleB + \dots}{\frac{\#VehicleA}{MPG_{VehicleA}} + \frac{\#VehicleB}{MPG_{VehicleB}} + \dots}$$

DOE relied on the Final model year combined fuel economy and model sales data as reported by manufacturers to the National Highway Traffic Safety Administration as required by 49 U.S.C. 32907. As explained in the interim final rule, DOE relied on the combined fuel economy value for all vehicle models as if none of the vehicles were dual

## Multiple Powertrains were Reported

and multiple powertrains, such as the Ford appropriate under the performance class. Lower P/W ratios were categorized into a group with a larger P/W ratio was placed

# Audit: Treasury's review of Solyndra 'rushed'

By BOB KING | 4/4/12 9:56 AM EDT



The Treasury Department's review of Solyndra's \$535 million federal loan guarantee was "rushed" through in about one day in March 2009, "based on an expedited review request from DOE so that a press release could be issued," according to a Treasury **inspector general report** (<http://www.treasury.gov/about/organizational-structure/ig/Agency%20Documents/OIG%20Audit%20Report>)

[%20-%20Consultation%20on%20Solyndra%20Loan%20Guarantee%20Was%20Rushed.pdf](#)) that gives further evidence of the early Obama administration's eagerness to announce progress in funding clean energy.

The report, issued Tuesday, also quotes internal Treasury documents that portray the Energy Department as being under pressure to get the loan agreement out the door.

"DOE says that their hands are tied on this issue," the audit quotes one Treasury email as saying, discussing one detail of the financing terms. "They are under pressure to complete a deal."

Another internal Treasury email said that "the train really has left the station on this deal."

The report also found that DOE didn't consult with Treasury on the terms and conditions of the loan deal before or during the Energy Department's own review process, including the review of Solyndra's credit worthiness.

"On March 17, 2009, OMB informed Treasury's Office of Government Financial Policy (OGFP) that DOE would be issuing a press release on Solyndra," says the report, adding that "OMB strongly urged Treasury to contact the DOE Office of the Secretary if Treasury wanted to weigh in on Solyndra's terms and conditions."

A day later, Treasury got a draft press release from DOE announcing Solyndra's conditional loan guarantee commitment, the report says. "Treasury then agreed with a DOE request to expedite the review to March 19, 2009, so that the press release could be issued on the morning of March 20," it adds.

Treasury officials raised concerns during a conference call on March 19, including concerns about the deal's high debt-to-equity ratio and about whether DOE could claim Solyndra's intellectual property in the event of a default.

On March 20, DOE **announced** (<http://energy.gov/articles/obama-administration-offers-535-million-loan-guarantee-solyndra-inc>) that Energy Secretary Steven Chu had offered the \$535 million loan guarantee to Solyndra. The deal was closed that September.

The loan, while guaranteed by DOE under the 2009 stimulus law, was actually financed through Treasury's Federal Financing Bank.

After waiting three years for a loan from the Energy Department, Bright Automotive Inc. is ending operations, [CNET reported](#) Friday.

Bright Automotive had designed a prototype for a plug-in electric utility van using a hybrid power train that achieved up to 100 miles per gallon. The company hoped the van could be put to commercial use or bought by federal agencies such as the Postal Service. It began the department's Advanced Technology Vehicles Manufacturing loan process in December 2008.

In a [letter](#) sent Feb. 28 to Energy Secretary Steven Chu, Bright Automotive chief executive officer Reuben Munger and chief operating officer Mike Donoughe had harsh words for the agency's loan process.

After being stalled in the due diligence stage of their application process, the company formed a partnership with General Motors and received word in August 2010 that its loan approval was expected within weeks. According to Bright Automotive, the process dragged on with Energy requiring more conditions be met until the company was forced to close operations.

"Bright has not been explicitly rejected by the DOE; rather, we have been forced to say 'uncle.' As a result, we are winding down our operations," the letter said. "The actions -- or better said 'lack of action' -- by your team means hundreds of great manufacturing and technical jobs, union and non-union alike, and thousands of indirect jobs in Indiana and Michigan will not see the light of day."

Energy's loan process was put under close scrutiny after solar company and \$535 million federal loan guarantee recipient [Solyndra went bankrupt](#).

Bright Auto's letter stated that other companies have faced similar challenges in securing loans from Energy, which has given out \$50 million in funds since Oct. 2009. [CNET reported](#) that due to the political

[6450-01-P]

**DEPARTMENT OF ENERGY**

**10 CFR Part 611**

**RIN 1901-AB25**

**Advanced Technology Vehicles Manufacturing Incentive Program**

**AGENCY:** Office of the Chief Financial Officer, Department of Energy (Department or DOE).

**ACTION:** Interim final rule; request for comment.

**SUMMARY:** Today's interim final rule establishes the Advanced Technology Vehicles Manufacturing Incentive Program authorized by section 136 of the Energy Independence and Security Act of 2007, as amended. Section 136 provides for grants and loans to eligible automobile manufacturers and component suppliers for projects that reequip, expand, and establish manufacturing facilities in the United States to produce light-duty vehicles and components for such vehicles, which provide meaningful improvements in fuel economy performance beyond certain specified levels. Section 136 also provides that grants and loans may cover engineering integration costs associated with such projects. This interim final rule establishes applicant eligibility and project eligibility requirements for both the grant and the loan program. Today's interim final rule also establishes the application requirements and the general terms for the loan program. At present, Congress has appropriated funds through the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009, for only the loan program. As

such, DOE will be implementing the loan program only at this time, though issuing rules for both the grant and loan programs.

**DATES:** This interim final rule is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Applications for a direct loan will be reviewed by DOE in tranches. To be eligible for the first tranche, applications may be submitted or hand delivered to the Postal Mail address listed in ADDRESSES until December 31, 2008. The deadline for loan applications for subsequent tranches of loans will be the end of every calendar quarter thereafter as funds and available loan authority permit. Comments must be received by DOE no later than [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. If you submit information that you believe to be exempt by law from public disclosure, you should submit one complete copy, as well as one copy from which the information claimed to be exempt by law from public disclosure has been deleted. DOE is responsible for the final determination with regard to disclosure or nondisclosure of the information and for treating it accordingly under the DOE Freedom of Information regulations at 10 CFR 1004.11.

**ADDRESSES:** You may submit comments, identified by any of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.
- E-mail: [ATVMLoan@hq.doe.gov](mailto:ATVMLoan@hq.doe.gov)
- Postal Mail: Advanced Technology Vehicles Manufacturing Incentive Program, U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, D.C. 20585
- Hand Delivery/Courier: Advanced Technology Vehicles Manufacturing Incentive Program, U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, D.C. 20585



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**DMC3 v. v. Minnesota is Dismissed: Public Trust Doctrine Not Extended to the Atmosphere in Minnesota |**

**BAD KARMA FOR FISKER AUTOMOTIVE: OF LOANS AND LAWSUITS**

February 21, 2012 22:59  
 By J. Wylie Donald

As if it wasn't hard enough trying to displace the internal combustion engine as the motive force of the automobile, then this happens. First the plug-in hybrid Chevy Volt's battery starts catching fire. Then battery-maker Ener1 files for bankruptcy protection. Last Thursday, the electric vehicle arena acknowledged more bad news. Fisker Automotive, maker of the electric sport coupe Karma and promoter of the Nira, issued a [press release](#) following a set of disquieting reports from various outlets. The sour news: "As a prudent business measure, project Nira has been temporarily put on hold until financing, either from the DOE or elsewhere, can be secured."

Fisker is the high end of electric vehicles. Its "plug-in extended range" Karma sedan seats four and retails between \$96,000 and \$109,000. It can do 0-60 in 7.9 seconds in full electric (Stealth) mode (the plug-in part). But turn on its gasoline engine, which turns its electric generator, and you're down to 5.9 seconds (Sport Mode) (the extended range part). [Motor Trend](#) calls it "a sweetheart to hustle."

Nira is (was?) the more consumer-friendly version of a Fisker. It is to be (according to reports) a compact or midsize sedan, priced in the \$40,000 range (after the \$7,000 federal tax credit). It is to be built in a refurbished GM plant in Delaware, which Fisker bought out of GM's bankruptcy in 2009. Predicted production levels were 100,000 vehicles per year. That goal is currently not realizable.

Fisker has raised a lot of money. Besides over \$850 million in private financing, in 2009 Fisker Automotive closed a [\\$629 million loan arrangement](#) under the Department of Energy's Advanced Technology Vehicles Manufacturing Loan Program for the development and production of two lines of plug-in hybrid electric vehicles. The project is expected to create about 2,000 jobs in Wilmington, Delaware. Times change. In May, after providing \$193 million to Fisker, DOE stopped lending because various milestones in Karma sales and production had been missed. Or as Fisker put it in its recent press release: "In May 2011 Fisker Automotive opted to stop taking reimbursements from the DOE while the company entered negotiations to implement more realistic and achievable relationships."

Fisker's financial difficulties are not being kept secret. The tip of the proverbial litigation iceberg made its appearance earlier this month in the form of a lawsuit filed in California Superior Court: *Wray v. Fisker Automotive Holdings et al.* (Complaint attached below). In the suit Mr. Wray, an investor in Fisker and various Fisker investment entities, claims he was deceived into buying Fisker securities because he was unaware that a subsequent "pay to play" offering could require him to increase his investment or lose the beneficial position he had procured by virtue of his earlier contributions.

Mr. Wray put over \$200,000 into Fisker. In return he received preferred stock with various benefits such as "conversion price discounts", "anti-dilution protection", and "liquidation preferences." While risks of investing were disclosed, nowhere, it is alleged,

did the offering memoranda inform Daniel Wray, or any other investor, that if he did not participate in future forced financing of Fisker, as Fisker and Advanced Equities (the broker/dealer) dictated, he would suffer a significant dilution of all of his earlier investments; conversion of the convertible preferred stock to common stock loss of all the rights, preferences and privileges that his ownership of preferred stock conferred, including liquidation preference, anti-dilution protection and initial public offering discounts/special conversion rights. Complaint ¶ 26.

But on January 18, 2012 the broker/dealer wrote Mr. Wray (and presumably others) seeking money: "Due to Fisker's urgent need for equity capital, the Financing now contains a "pay to play" provision that requires all holders (of certain securities) to purchase Series D-1 Preferred Stock in an amount equal to at least 40% of such holder's aggregate dollar amount invested. . . ." At ¶ 28, Mr. Wray had slightly over \$200,000 invested, and was now on the hook for another \$83,922.32. In his complaint, Mr. Wray alleges breach of fiduciary duty, fraud, negligent misrepresentation, and various violations of the California Corporations and Business & Professions Codes, among other things.

The [press release](#) also notes that a 10% investment in the car is not enough, especially about Mr. Wray's charges on the month. We look at



# Bankrupt DOE Loan Recipient Abound Solar Under Investigation, Panels Suffered “Catastrophic Failure”

Michael Sandovei

October 6, 2012 at 12:07 pm

(0)

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52

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54



# abound

solar

Abound Solar, a Department of Energy \$400 million loan guarantee recipient that went bankrupt earlier this year, is under investigation by officials in Weld County, Colorado.

The company, which received nearly \$70 million in loan funding before payments were cut off by DOE in 2011, also received a \$100,000 tax break from the Colorado county in 2010. The

*Energy stopped stimulus money payments to Abound.*

Rep. Cory Gardner, R-CO, has announced his intent to issue a letter to DOE "seeking records and information about what it knew while providing money to Abound."

Gardner told 7NEWS that the document request would be comprehensive.

"We need to know, did the Department of Energy — did they close on the loan when they knew there were technical problems with the product?" Gardner told the station.

The revelation of an investigation into the shuttered solar manufacturer comes less than a week after [The Daily Caller News Foundation cited sources that appear to corroborate](#) the issue of faulty, underperforming, and even dangerous solar modules, one of which the outlet showed bursting into flames in a video released with their report:

*Internal documentation and testimony from sources within Abound show that the company was selling a faulty, underperforming product, and may have misled lenders at one point in order to keep itself afloat.*

*"Our solar modules worked as long as you didn't put them in the sun," an internal source told The Daily Caller News Foundation.*

*The company knew its panels were faulty prior to obtaining taxpayer dollars, according to sources, but kept pushing product out the door in order to meet Department of Energy goals required for their \$400 million loan guarantee.*

The DCNF's sources also show agreement with the extraordinarily high number of replacement panels—nearly 160,000—due to underperformance issues. Faulty manufacturing, DCNF said, was apparently prompted, at least in part, by the necessity to meet loan guarantee production benchmarks issued by DOE.

*The company's financial statements, under investigation by Colorado, will form a major part of*

*Company executives and DOE loan administrators blamed Abound's demise on Chinese market pressures created by the subsidies and price-cutting, rather than incompetence or political pressures exerted on the part of government officials in the loan approval process.*

*"Chinese panel makers were able to sell below cost and put Abound out of business before we were big enough to pose a real competitive threat to China's rapidly growing market share," Witsoe said in his statement.*

*Abound's chairman concurred. "Such a severe market change made it difficult for Abound and others to survive," said Thomas Tiller.*

One of Abound's capital investors [blamed "election-year political games"](#) for driving the company out of business.

Just weeks after Abound [filed for bankruptcy in June 2012](#), [Interior Secretary Ken Salazar addressed](#) a gathering at the National Renewable Energy Laboratory and called the bankruptcies "just minor (and expected) blips for the industry":

*Salazar told Denver's alt-weekly Westword, "Any time you're dealing with an emerging future on energy, you're always going to have successes and you're going to have setbacks," he says. "And President Obama and I remain very confident that we're moving in the right direction."*

Abound also received more than \$12.6 million in additional tax credits under a separate investment tax credit for renewable energy projects, Heritage's Lachlan Markay [reported in July](#).

When Abound ceased operations, it joined a graveyard of other taxpayer-funded failures like Solyndra [Heritage's Amy Payne wrote](#), citing a compilation by Heritage staff of at least a dozen companies that have filed for bankruptcy.

industry gearing up to make its first real go at marketing plug-in vehicles for the masses, the race to build lithium-ion batteries for vehicles has never been hotter.

Massive international battery makers may dominate the mobile device and laptop markets for lithium-ion batteries, but a growing number of companies — some founded just in the last year, others that have been around for over a decade — are hoping to carve out a piece of the battery vehicle market. They have their work cut out for them, however, as more established companies such as Sanyo, Hitachi and NEC are eyeing the same prize.

As the money rolls out and competition heats up, here are 13 battery startups you should know about:

**A123Systems:** Massachusetts-based A123Systems, working with nanoscale materials licensed from MIT, has attracted big-name backers including General Electric, Motorola and Qualcomm. The startup had raised \$132 million by late 2007, and last year filed for an IPO. But A123 has since revised its registration with the SEC several times (taking into account tumult on Wall Street and in the auto industry, and most recently the introduction of new government incentives) and has yet to go public.

Runner-up to supply cells for General Motors' Chevy Volt and winner of a deal with Chrysler to make modules and battery packs for the struggling automaker's planned plug-in vehicles, A123 is also working on energy storage systems for electric utilities and got its start with batteries for power tools. The company has its eye on at least two DOE programs, and has won state-level support as part of Michigan's efforts to lure battery manufacturing jobs.

**ActaCell:** Having raised \$5.8 million in a Series A round led by DFJ Mercury and joined by Google.org last summer, ActaCell has been working toward a 2010 commercial launch. ActaCell's devices, which it expects to have a longer cycle life at lower costs than the competition, are based on technology developed at the University of Texas at Austin. The company has joined the National Alliance for Advanced Transportation Battery Cell Manufacture, a group of 50 U.S. companies that plan to invest more than \$600 million in a battery R&D center in Kentucky, if DOE funds come through.

**Boston-Power:** Massachusetts-based laptop battery maker Boston-Power unveiled a new battery for plug-in vehicles in May 2008. The startup

**Enax:** Founded 13 years ago as a battery consulting service in Tokyo, Enax is now working on "lithium-ion cells especially for future hybrid and electric drives in automobiles" with battery giant Continental, which bought a 16 percent stake in the company last year. Enax claims the new batteries will be safer and have a longer service life than today's offerings, as AutoblogGreen reports. The company, which aims to provide batteries for "electric vehicles, submarines, fuel cell system, etc.," also supplies electrodes to other companies.

**Envia Systems:** Based in Hayward, Calif., early-stage Envia Systems raised a \$3.2 million first round of financing late last year from Bay Partners and Redpoint Ventures to help with development of "high performance, low cost energy storage solutions using lithium ion batteries" for plug-in vehicles.

**Imara:** Founded in 2006, Menlo Park, Calif.-based Imara is working on small-format batteries for power tools and outdoor equipment, with the goal of eventually producing vehicle batteries after it builds "a solid economic base," VP Neil Maguire tells Triple Pundit. Still, the company has requested stimulus funds from the DOE to build a plant in Portland, Ore., to produce cells for plug-in hybrid vehicle batteries.

Imara has raised \$20 million in venture capital (investors include Battery Ventures and Nth Power) and licenses its technology from SRJ International. The company told us late last year that it aimed to use the funds to ramp up annual production capacity to at least 8 million cells by the end of 2009, with electrode manufacturing facilities in Menlo Park, Calif., and assembly for small-format batteries contracted out in Asia.

**Mobius Power:** Based in Fremont, Calif., Mobius Power aims to produce lithium-ion batteries with high energy density for mobile phones, notebook computers, backup power for the grid, and hybrid vehicles. Founded in 2007 with a reported \$4.5 million investment from Walden International, Lightspeed Venture Partners and Sigma Partners, the company is not revealing many details, but says its "technology is based on innovative and patented developments in the research laboratories at a major U.S. corporation."

**Sakti3:** Sakti3 has been amassing funds and partnerships since we first wrote about its \$2 million investment from Khosla Ventures last year. It remains tight-lipped about its technology, however, which stems from research led by CEO Ann Marie Sastry, who heads up University of Michigan's energy systems engineering program.

Sakti3 has won significant support from the state of Michigan and partnered with General Motors, a move designed to strengthen both

has reportedly raised around \$2 million in funding from investors including Khosla Ventures.

**Planar Energy Devices:** Founded in 2007 as a spin-out from the National Renewable Energy Laboratory, Planar is working on solid-state, high-capacity batteries. If \$56 million in DOE funds come through, the startup plans to start production at a shuttered lithium-ion battery factory built over a decade ago in Gainesville, FL.

When we wrote about Planar last fall it had one technology that it wanted to use for micro, mid-sized and large batteries — starting with military applications and smart cards. The company's thin-film batteries, designed with a "laminated safety separator" that Planar says protects cells from thermal and overcharge abuse, are supposed to charge in seconds, have a high energy density, last 400-500 life cycles and be safer than traditional lithium-ion batteries. These days Planar's focus seems to have shifted more to vehicle batteries, at least for the purpose of securing stimulus funds.

**Quallion:** Although Quallion has been around since 1996, making lithium-ion cells and batteries at high volume for medical and military applications, and in custom designs for aerospace and other applications, the company is a relative newcomer to the plug-in vehicle battery market. It has requested \$220 million in stimulus funds from the DOE to build a factory in Palmdale, Calif., with capacity to produce 20,000 lithium-ion batteries a year for hybrid cars and trucks by 2012, according to the Los Angeles Times.

Co-founded by billionaire Alfred Mann, Quallion has won support for its aid request from a delegation of 17 California representatives in Congress, and the state Energy Commission, which has pledged to provide up to \$9 million if the DOE gives the green light. As Automotive World reports, Quallion aims to produce lithium-ion batteries for cars as well as "batteries that replace engine idling as a stationary power source for heavy duty trucks" at the proposed Palmdale facility.



## The Recovery Act: Transforming America's Transportation Sector

### *Batteries and Electric Vehicles*

The Obama Administration is investing in a broad portfolio of advanced vehicle technologies. These investments—investments in American ingenuity, innovation, and manufacturing—are driving down the costs associated with electric vehicles and expanding the domestic market. Investments in batteries alone, for example, should help **lower the cost of some electric car batteries by nearly 70 percent before the end of 2015**. What's more, thanks in part to these investments, **U.S. factories will be able to produce batteries and components to support up to 500,000 electric-drive vehicles annually by 2015**. Overall, **these investments will create tens of thousands of American jobs**.

As part of the Department of Energy's \$12 billion investment in advanced vehicle technologies, the Department is investing more than \$5 billion to electrify America's transportation sector. These investments under the American Recovery and Reinvestment Act and DOE's Advanced Technology Vehicle Manufacturing (ATVM) Loan Program are supporting the development, manufacturing, and deployment of the batteries, components, vehicles, and chargers necessary to put millions of electric vehicles on America's roads.

The Recovery Act included \$2.4 billion to establish 30 electric vehicle battery and component manufacturing plants and support some of the world's first electric vehicle demonstration projects. For every dollar of the \$2.4 billion, the companies have matched it at minimum dollar for dollar. Additionally, DOE's Advanced Research Projects Agency-Energy (ARPA-E) is providing over \$80 million for more than 20 transformative research and development projects with the potential to take batteries and electric drive components beyond today's best technologies, and the Advanced Energy Manufacturing Tax Credit program is helping expand U.S.-based manufacturing operations for advanced vehicle technologies.

The Obama Administration has also provided nearly \$2.6 billion in ATVM loans to Nissan, Tesla and Fisker to establish electric vehicle manufacturing facilities in Tennessee, California and Delaware, respectively.

Projects have now begun constructing new manufacturing plants, adding new manufacturing lines, building electric vehicles, and installing electric vehicle charging stations, creating thousands of new jobs across the country. These combined investments are helping the economy grow now, while positioning the U.S. for global leadership in the electric vehicle industry for



## Recovery Act Investments in Electric Vehicles

Through the Recovery Act, the country is making comprehensive investments in each part of the electric vehicle ecosystem. In sum, the Act included approximately \$4 billion to support domestic manufacturing and deployment for advanced vehicle and clean fuel technologies. To date, there have been over 70 awards, worth more than \$2.5 billion, to promote electric vehicle technologies. This includes cost-shared projects at each level along the innovation chain – from battery and component manufacturing to commercial deployment of vehicles and charging stations to advanced research and development that will help identify the next generation of electric vehicle technologies.

- **Manufacturing** – 26 of 30 battery and component manufacturing plants have started construction, which includes breaking ground on new factories or installing new equipment in existing facilities.
  - 9 battery manufacturing projects, including a \$249 million project by A123 to support the construction of 3 Michigan facilities to produce advanced batteries for vehicles, grid storage, and other applications. They have already started construction of a low-volume manufacturing facility in Livonia, which they expect to begin operations in September, and have begun planning for larger-volume facilities in Romulus and Brownstown, Michigan. Nine of the nine new battery plants opening as a result of Recovery Act investments will have started construction by tomorrow – and four of those will be operational by the end of the year.
  - 11 battery component manufacturing facilities, including Celgard LLC in North Carolina, who won a \$49.2 million grant to expand its production capacity for separators, a key component in the lithium-ion batteries needed for the growing electric drive vehicle market. When Celgard completes expanding its facility in Charlotte, North Carolina, the company will be able to produce an additional 80 million square meters of separator per year—enough to support up to a million electric-drive batteries per year. Celgard is also building a new manufacturing facility in Concord, North Carolina to support additional increased demand for electric vehicle batteries.
  - 10 electric drive component manufacturing projects, including Delphi Automotive Systems, the largest North American supplier of power electronic components for electric vehicles. The company received \$89.3 million in Recovery Act support to build a power electronics manufacturing facility in Kokomo, Indiana. The plant will have the production capacity to support at least 200,000 electric drive





- **Deployment** – 8 innovative demonstration projects, representing the world’s largest electric vehicle demonstration to date. In total, these projects will lead to an additional 13,000 grid-connected vehicles and 20,000 charging stations in residential, commercial and public locations nationwide by December 2013.
  - Coulomb Technologies received a \$15 million Recovery Act grant to support the ChargePoint America program, which will deploy 5,000 residential and commercial charging stations and 2,600 electric drive vehicles in nine major metropolitan areas around the country.
  
- **Advanced Research and Development** - More than 20 breakthrough research projects to support potential game-changing technologies like semi-solid flow batteries, ultracapacitors and “all-electron” batteries that could go well beyond today’s best lithium-ion chemistries are being funded. **If successful, these breakthroughs could cut battery costs by as much as 90 percent and expand vehicle range three to six-fold.** In turn, this would decrease the upfront cost of electric cars to roughly that of gas-powered cars and give them a longer range, likely further increasing demand for the vehicles in the long-term.
  - Fluidic Energy won \$5 million to pursue “metal air” batteries that could have 10 times the energy density of today’s lithium-ion technologies, at a third of the cost. The Scottsdale, Arizona company is working with Arizona State University to develop ultra stable new materials, or “wonder fluids” that could allow metal-air batteries to be successfully developed and deployed for the first time, enabling widespread deployment of low cost, very long range electric vehicles.

Taken together, the impact of these investments is greater than the sum of their parts. The investments interact to stimulate both supply and demand for electric vehicles. The investments are lowering barriers to ownership: driving down the cost of batteries while improving their functionality and building a network of charging stations. Meanwhile, they are actively putting more electric cars on the road and supporting the long-term domestic production of low-cost, clean energy vehicles.

Federal investments in electric vehicles are being matched by private sector funding, helping to move private capital off of the sidelines. This combination of private and public investments in advanced vehicles is stimulating economic growth, creating jobs in both the short- and long-term, and increasing the country’s global competitiveness.

These jobs represent a shift—the shift of important industries moving jobs back to American shores and the growth of a domestic battery industry. The Recovery Act is laying the



vehicle batteries and produced less than two percent of the world's advanced vehicle batteries. By 2012, thanks in part to the Recovery Act, 30 factories will be online and the U.S. **will have the capacity to produce 20 percent of the world's advanced vehicle batteries. By 2015, this share will be 40 percent.**

This shift has additional benefits, too. Today, oil provides 95% of the power to move America's cars, trucks, ships, rail, and planes, and over half of America's oil is imported. Electric vehicles and other advanced vehicle technologies can reduce this dependence and help the country control its energy future.

## **Electric Vehicle Supply Chains and Networks**

Through the Recovery Act and the ATVM program, DOE is invigorating a nationwide advanced vehicle supply chain centered in the Midwest. Michigan is an example of how clusters can multiply the impact of Recovery Act funds and create synergies within and across corporate walls. A concentration of Michigan's engineers, workers, and managers are innovating more quickly because they are near one another – and drawing in more and more advanced vehicle expertise each day.

The Recovery Act is supporting 14 vehicle awards in Michigan. This includes several large battery factories (e.g. A123, GM, Johnson-Controls, Dow-Kokam, and LG Chem), electric drive component factories (e.g. GM, Ford, Magna), and three workforce training programs (University of Michigan, Michigan Technological University, and Wayne State). Under the Department's loan program, DOE is supporting multiple Michigan-based factories that will hire the workers trained in these universities to assemble the batteries and components into some of the world's most advanced vehicles.

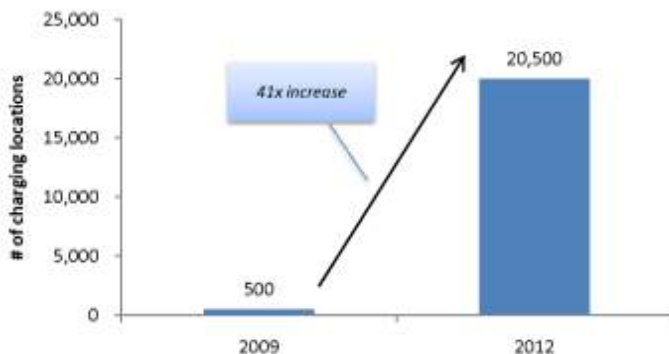
For example, a \$105 million grant to GM is expanding a facility to package batteries for the Chevy Volt – the grant is creating hundreds of jobs at the Brownstown facility and invigorating a chain of local factories. GM will deliver batteries from Brownstown to a plant in Detroit. Here, hundreds of workers will assemble components made in Warren, Grand Blanc, and three factories in Flint. This network of Volt-related investments is attracting other companies to Michigan. To supply battery cells to the Brownstown facility, Compact Power, Inc. is building its first American factory in Holland, Michigan. The \$151 million grant is helping Compact hire workers in Holland and purchase battery components and supplies from U.S. factories. Compact will purchase its separator material from Celgard, and is evaluating other Midwestern suppliers for its other components like cathodes, electrolytes, additives, and binders.

Meanwhile, under the Recovery Act's Transportation Electrification program, grantees will deploy 20,000 additional electric charging locations, up from 500 locations today. These 8



4,700 Chevy Volts, across more than a dozen cities to show how electric cars perform under real driving, traffic and weather conditions.

### Electric Vehicle Charging Locations



### Innovation in Batteries

The Obama Administration's investments in advanced vehicles are creating a sustainable future for American industry and American workers. But investments in batteries demand special attention. The lack of affordable, highly-functional batteries has been a particularly high barrier to the widespread adoption of electric vehicles. When the Recovery Act passed, batteries were too costly, too heavy, too bulky and would wear out too quickly. Recovery Act investments are literally reshaping electric batteries and reshaping the economics of battery production and distribution.

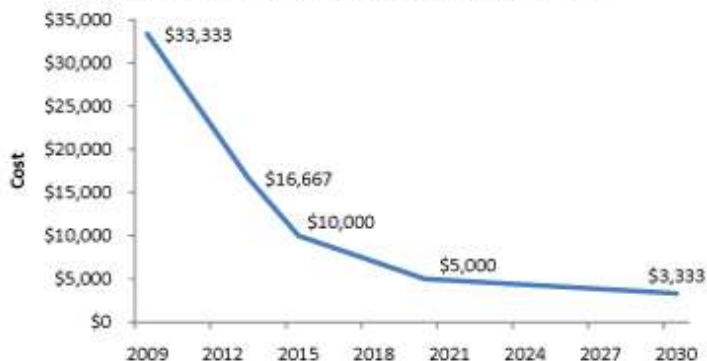
### More Affordable

Before the Recovery Act, the only highway-enabled electric vehicle on the road cost more than \$100,000. This high cost resulted in large part from the high cost of batteries—a car with a 100 mile range required a battery that cost more than \$33,000.

Between 2009 and 2013, the Department of Energy expects battery costs to drop by half as 20 Recovery Act-funded factories begin to achieve economies of scale. By the end of 2013, a comparable 100 mile range battery is expected to cost only \$16,000. By the end of 2015, Recovery Act investments should help lower the cost of some electric car batteries by nearly 70 percent to \$10,000. The same cost improvement applies to plug-in hybrids – cars that can travel roughly 40 miles on electricity before their gasoline engine kicks in. The cost of a 40 mile range



### Forecasted Cost of a Typical Electric-Vehicle Battery



Note: Assumes 3 miles per kilowatt hour and 100-mile range. Source: U.S. DOE Vehicle Technologies Program.

This dramatic drop in cost should result in more affordable, mainstream electric cars. Fisker, GM, Nissan, Tesla, and other automakers are introducing more affordable electric vehicles. At the end of this year, consumers will be able to purchase electric vehicles that cost between \$25,000 and \$35,000, after tax credits. In addition, drivers will save money over a car's lifetime. Using electricity to power a car is only about 30 percent of the cost of using three-dollar-a-gallon gasoline.

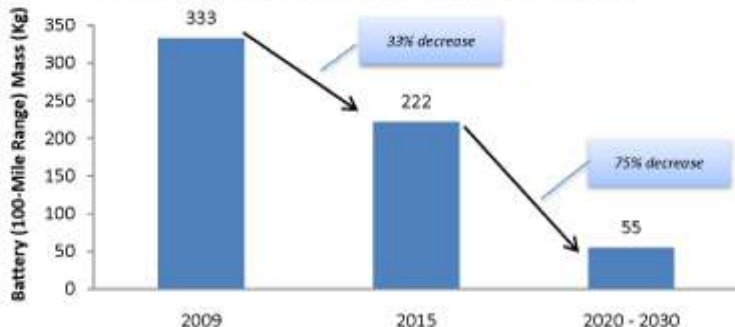
### Lighter Weight

Low energy density, i.e. heavier batteries, significantly limits vehicle range and acceleration. Under the Recovery Act, DOE is supporting innovations to reduce battery weight and increase the energy density, which allows batteries to store more energy in a smaller, lighter package. These smaller, lighter batteries will pack **more power, performance, and range**.

Between 2009 and 2015, increases in energy density will reduce the typical weight of an electric vehicle battery by 33 percent. Meanwhile, ARPA-E projects are pursuing innovations that have the potential to improve battery density up to six times its current level.



### Forecasted Weight of a Typical Electric-Vehicle Battery

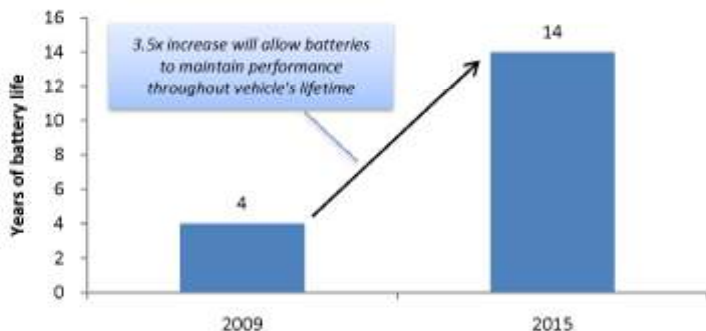


Note: Assumes 3 miles per kilowatt hour and 100-mile range. Source: U.S. DOE Vehicle Technologies Program.

### Longer Lasting

Batteries are also getting more durable. In the next few years, domestic manufacturers should be able to produce batteries that last up to 14 years. This should give consumers confidence that electric vehicle batteries will last the full life of the vehicle. In addition, longer lasting batteries reduce the potential for used batteries to become waste material.<sup>1</sup>

### Expected Lifetime of a Typical Electric-Vehicle Battery



Note: Assumes drivers will charge their vehicles 1.5 times per week. Source: U.S. DOE Vehicle Technologies Program.

## **R. 1382: Innovative Vehicle Act**

1 Congress

09-2010

### **maries**

#### **Congressional Research Service Summary**

Following summary was written by the Congressional Research Service, a well-respected partisan arm of the Library of Congress. GovTrack did not write and has no control over these summaries.

2009--Introduced.

Innovative Vehicle Act - Amends the Energy Independence and Security Act of 2007 to include: (1) ultra efficient vehicles within the meaning of "advanced technology vehicle"; (2) ultra efficient vehicle manufacturers as eligible recipients of advanced vehicles manufacturing facility funding awards; (3) facilities for the manufacture of ultra efficient vehicles among facilities that are given priority for such awards; and (4) a firm that manufactures ultra efficient vehicles or components of such vehicles within the meaning of "covered firm." Defines "ultra efficient vehicle" to mean a fully closed compartment vehicle designed to carry at least two adult passengers that achieves: (1) at least 75 miles per gallon while operating on gasoline or diesel fuel; or (2) the equivalent while operating as a hybrid electric-vehicle or electric-diesel vehicle or as a fully electric vehicle. Requires the Secretary of Energy to consider applications for assistance under the advanced technology vehicles manufacturing incentive program that were timely filed but rejected because the vehicles to which the proposal related were ultra efficient vehicles and not advanced technology vehicles.

Because the U.S. Congress posts most legislative information online one legislative day after events occur, GovTrack is one legislative day behind. For more information about where this data comes from, see [About GovTrack.us](#). For this information, click a citation format for a suggestion: [APA](#) | [MLA](#) | [Wikipedia Template](#).

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## CAROL BATTERSHELL

Ms. Battershell joined the Department of Energy in 2008 after 25 years in the energy industry with Standard Oil and BP. As Senior Advisor to the Assistant Secretary she provides advice and coordination to help develop public-private partnerships with key industries to conduct a program of commercialization and deployment which will lead to the increased use of energy efficiency and renewables in the US.

Her most recent roles at BP included:

- Vice President, Policy and Strategy for BP Alternative Energy where she was instrumental in developing the strategy and business case for an 8 billion dollar investment to launch and grow the new BP Alternative Energy division, and
- Vice President, Renewables and Alternative Fuels where she directed BP's global activities in hydrogen and wind, as well as managed BP's "green energy" marketing and consulting company.

Additional energy industry positions have included operations and strategy roles in retail fuels marketing, strategy and financial roles in business-to-business fuels marketing, as well a corporate role in environmental policy and a development role as chief of staff to one of BP's most senior executives.

She began her career as a refinery engineer in Ohio.

Carol has a BS in engineering from Purdue University where she specialized in environmental engineering and an MBA from Case Western Reserve University.

She has worked in a variety of locations in the US, and spent ten years living and working in Europe.

## MATTHEW McMILLEN

Mr. McMillen joined the U.S. Department of Energy (DOE) in September 2008 as the Director of National Environmental Policy Act (NEPA) Compliance for the Loan Guarantee Program Office. He is also the NEPA Compliance Officer for the Office of the Chief Financial Officer. Before joining DOE he spent seven years with the Federal Aviation Administration heading up the agency's NEPA program in the Office of Environment and Energy. For over 20 years before that, he was a Senior Environmental Scientist with three Washington environmental consulting firms preparing NEPA documents and related guidance. Mr. McMillen was a member of the White House Council on Environmental Quality (CEQ) NEPA Task Force. He is a principal author of important CEQ guidance including "*Considering Cumulative Effects Under the National Environmental Policy Act*" and "*Modernizing NEPA Implementation: The NEPA Task Force Report to The Council On Environmental Quality.*" and "*Aligning NEPA Processes with Environmental Management Systems.*" He is also serving on a CEQ Interagency Work group preparing guidance for employing NEPA Adaptive Management.



## LACHLAN W. SEWARD

- *1999-present* - U.S. Treasury senior advisor for the largest litigation case against Treasury and staff representative to the Airline Transportation Stabilization Board for loan guarantees to the airlines following 9-11. Assisted in the design and start-up of the Title XVII under the Energy Policy Act of 2005.
- *1989-2002* - Consultant, manager and director for restructuring and resolution of failing and failed financial institutions assets for the World Bank, JE Robert Companies and Coopers and Lybrand LLC respectively. Designed asset resolution, bank resolution alternatives, reform and institution building programs for the World Bank in Romania, Bulgaria and the Ukraine. Developed the legal framework, organization, operating structure and budget for a government sponsored asset resolution corporation in Romania. Participated in design and execution of programs for management of closed banks, non-performing assets and asset backed securities (RTC issues).
- *1984-1989* - Managing Director, Management Strategies, Inc. Vice President, the Secura Group. Consultant to private and government clients for resolving various issues related to federal and state insured problem financial institutions.
- *1984* - Director of Finance, U. S. Synthetic Fuels Corp. Designed federally guaranteed financial instruments for a variety of alternative energy projects.
- *1981-1984* - Executive Director, Chrysler Corporation Loan Guarantee Board (CLGB) and Director Office of Chrysler Finance. Supervised the disposition of 14 million warrants and other CLGB approvals including the sale of Chrysler Defense to General Dynamics.
- *1973-1981* - Program manager at Maritime Administration and Department of Energy. Project management for over \$1 billion in loan guarantees and other federal credit assistance for shipping, alternative energy and synthetic fuels applications including geothermal energy, alternative fuels evaluation and energy transport such as LNG carriers.
- *1970-1972* - General Reinsurance Corporation Casualty Facultative Underwriter for large commercial liability risks.
- *1966-1970* - US Navy including service in Vietnam.
- *Education*
  - Cornell University - AB Economics
  - American University - MBA Finance

Sorted Alphabetically		Sorted by Amount Requested	
A. G. Simpson	\$25,832,000	Ford	\$11,000,000,000
A123	\$1,000,000,000	Chrysler	\$8,550,000,000
Acument	\$8,000,000	GM II	\$4,700,000,000
ALTe	\$60,000,000	GM	\$3,600,000,000
American Axle & Manufacturing	\$11,980,000	GM III	\$2,500,000,000
AMP	\$20,000,000	Wind Works	\$1,680,000,000
Aptera Motors, Inc.	\$75,000,000	Nissan North America	\$1,630,000,000
ArvinMeritor OE	\$115,400,000	EV Innovations	\$1,300,000,000
Bailey Tool & Manufacturing	\$9,800,000	A123	\$1,000,000,000
Bannon Automotive	\$40,000,000	Goodyear	\$944,000,000
BG Auto	\$150,000,000	Severstal Int.	\$741,000,000
Bio-endocrinology	\$1,905,000	Valence	\$608,000,000
BioTrike		Tesla	\$588,000,000
Borg Warner	\$27,600,000	Raser Technologies	\$520,000,000
Brammo Motorcycles	\$45,000,000	Bright Auto	\$450,000,000
Bright Auto	\$450,000,000	Enerdel	\$384,100,000
Carter Group	\$5,100,000	Fisker II	\$318,800,000
Chrysler	\$8,550,000,000	Continental	\$278,000,000
Coherix	\$10,000,000	V-Vehicle #2	\$264,600,000
Concord International		Electrovaya	\$240,000,000
Continental	\$278,000,000	ZAPI Motor Manufacturing	\$200,300,000
Cooperative Energy	\$800,000	Quantum Tech	\$175,000,000
Cordovano	\$345,777	Transonic Combustion	\$156,000,000
CVRD, LLC	\$12,800,000	BG Auto	\$150,000,000
Delphi		Fisker I	\$145,300,000
Dynamic Free Piston	\$20,000,000	Lear Corporation	\$120,000,000
Eaton	\$28,685,000	Electric Motors Corp.	\$115,680,000
EcoMotors	\$20,851,000	ArvinMeritor OE	\$115,400,000
Electric Motors Corp.	\$115,680,000	U. S. Manufacturing Corporation	\$95,000,000
Electrocharger	\$5,500,000	Federal Mogul	\$79,300,000
ElectroRides	\$2,000,000	V-Vehicle #1	\$78,400,000
Electrovaya	\$240,000,000	Aptera Motors, Inc.	\$75,000,000
Enerdel	\$384,100,000	MAGNA	\$65,200,000
Energy Systems Network		ALTe	\$60,000,000
Enova Systems	\$10,456,126	Brammo Motorcycles	\$45,000,000
Environmental Transport Solutions	\$3,870,000	T3 Motion	\$45,000,000
EV Innovations	\$1,300,000,000	Wirco, Inc	\$40,800,000
Fast Skins	\$7,000,000	Bannon Automotive	\$40,000,000
Federal Mogul	\$79,300,000	Revolution Motors	\$40,000,000
Fisker I	\$145,300,000	Wrightspeed	\$40,000,000
Fisker II	\$318,800,000	XP Vehicles	\$40,000,000
Ford	\$11,000,000,000	Vehicle Production Group	\$34,406,000
Futuris Automotive		Metaldyne	\$32,120,000
Gill Industries	\$4,309,000	Vectrix Corporation	\$32,000,000
GM	\$3,600,000,000	Eaton	\$28,685,000
GM II	\$4,700,000,000	Borg Warner	\$27,600,000
GM III	\$2,500,000,000	A. G. Simpson	\$25,832,000
Good Earth	\$24,000,000	Johnson Controls	\$25,100,000
Goodyear	\$944,000,000	Jordan Engineering	\$25,000,000
Imara Corp.		Local Motors	\$24,341,500
Johnson Controls	\$25,100,000	Tenneco	\$24,110,000
Jordan Engineering	\$25,000,000	Good Earth	\$24,000,000
Key Safety Systems	\$3,900,000	Van-Rob	\$21,400,000
Kleen Speed	\$1,600,000	EcoMotors	\$20,851,000
Lear Corporation	\$120,000,000	AMP	\$20,000,000

Limnia, Inc.	\$15,000,000	Dynamic Free Piston	\$20,000,000
Local Motors	\$24,341,500	Millwind R & D	\$20,000,000
MAGNA	\$65,200,000	Sabo	\$20,000,000
Magnesium Auto Group	\$2,000,000	Smart Earth Systems	\$17,825,000
Meridian Auto	\$11,164,000	Limnia, Inc.	\$15,000,000
Metal Forming and Coining	\$15,000,000	Metal Forming and Coining	\$15,000,000
Metaldyne	\$32,120,000	Ruff & Tuff	\$14,000,000
Microstac	\$10,540,000	Sekou	\$13,920,000
Millwind R & D	\$20,000,000	Tinnerman	\$13,100,000
Motor Trike/Thoroughbred Motorsports	\$12,600,000	CVRD, LLC	\$12,800,000
Nissan North America	\$1,630,000,000	Motor Trike/Thoroughbred Motorsports	\$12,600,000
Phoenix Motors		Pittsburgh Glass Works	\$12,415,000
Pittsburgh Glass Works	\$12,415,000	American Axle & Manufacturing	\$11,960,000
Quantum Tech	\$175,000,000	Renosol Corp.	\$11,867,000
Raser Technologies	\$520,000,000	Meridian Auto	\$11,164,000
Remy		Microstac	\$10,540,000
Renosol Corp.	\$11,867,000	Enova Systems	\$10,456,128
Revolution Motors	\$40,000,000	Coherix	\$10,000,000
Ruff & Tuff	\$14,000,000	Bailey Tool & Manufacturing	\$9,800,000
Sabo	\$20,000,000	Acument	\$8,000,000
Saturnin Electronics		Fast Skins	\$7,000,000
Sekou	\$13,920,000	Electrocharger	\$5,500,000
Severstal Int.	\$741,000,000	Carter Group	\$5,100,000
Smart Earth Systems	\$17,825,000	Gil Industries	\$4,309,000
STANT	\$3,750,000	Key Safety Systems	\$3,900,000
Stoneridge - Hyd. Actuators		EnVironmental Transport Solutions	\$3,870,000
Stoneridge - Steering Torque		STANT	\$3,750,000
Stoneridge - Turbo Controls	\$3,412,000	Stoneridge - Turbo Controls	\$3,412,000
T3 Motion	\$45,000,000	ElectroRides	\$2,000,000
Tenneco	\$24,110,000	Magnesium Auto Group	\$2,000,000
Tesla	\$588,000,000	THB America	\$1,980,000
THB America	\$1,980,000	Bio-endocrinology	\$1,905,000
Think North America		Kleen Speed	\$1,600,000
Tinnerman	\$13,100,000	Cooperative Energy	\$800,000
Transonic Combustion	\$156,000,000	Cordovano	\$345,777
U. S. Manufacturing Corporation	\$95,000,000	BioTrike	
Valence	\$608,000,000	Concord International	
Van-Rob	\$21,400,000	Delphi	
Vectrix Corporation	\$32,000,000	Energy Systems Network	
Vehicle Production Group	\$34,406,000	Futuris Automotive	
V-Vehicle #1	\$78,400,000	Imara Corp.	
V-Vehicle #2	\$264,600,000	Phoenix Motors	
Wind Works	\$1,680,000,000	Remy	
Wirco, Inc.	\$40,800,000	Saturnin Electronics	
Wrightspeed	\$40,000,000	Stoneridge - Hyd. Actuators	
XP Vehicles	\$40,000,000	Stoneridge - Steering Torque	
ZAP Motor Manufacturing	\$200,300,000	Think North America	
ZF Group - 8sp		ZF Group - 8sp	
ZF Group - Axle		ZF Group - Axle	
<b>Total</b>	<b>\$43,901,244,403</b>	<b>Total</b>	<b>\$43,901,244,403</b>



Courtesy Bright Automotive

environment and create jobs. In the automotive industry, this has meant promoting electric vehicles. This was good news for an Indiana start-up that promised nearly 1,000 jobs with the development of a plug-in hybrid van. But the story does not have a happy ending.

In February, the floor of Bright Automotive, a plug-in hybrid vehicle plant in Anderson, Ind., was humming. Launched in 2008 by former-General Motors engineers, the company was set to create a plug-in hybrid van for commercial customers.

Bright promised that the lightweight van would reduce fuel costs, protect the environment and create jobs for recession-

"Not only were we building a vehicle from the ground up, we were building a company from the ground up that had a Silicone Valley attitude, and industrial, rust-belt experience to make cars entrepreneurially and very efficiently," said Bright Automotive Founder John Waters.

But, in March, Bright Automotive shut down. After three years of negotiating for a \$450 million loan from the U.S. Department of Energy, Bright Automotive cried "uncle" and shut its doors.

**Read the letter from the company to the Dept. of Energy.**

"I cannot speculate of why we did not get the loan, but we were told we would get the loan on up to four different occasions," Waters said.

The town of Anderson had high hopes that the Bright start-up would bring back the area's auto industry. GM once had 25 plants in the area that provided 25,000 jobs. By 2007, all had been shuttered.

Bright's business plan called for 900 new jobs, with 5,000 to 8,000 secondary jobs among its suppliers. Besides creating jobs, Waters says Bright would have produced exactly the kind of alternative fuel vehicles President Obama has called for.

employees."

Bright says it had commitments of over \$200 million from investors but the money was conditioned on the federal loan. Without it, investors pulled out and Bright closed its doors. The decision devastated Bright's employees.

"It was very emotional. We all put our own time and money, and commitment and dedication into seeing this vehicle happen," said former Bright employee Amy Dobrikova. "It was really heartbreaking to hear the news, and my heart goes out to the 59 other employees who were let go."

"It crushed my hopes and dreams. It just absolutely...I put everything I could into this company, and I can honestly leave knowing that I have nothing left," said former Bright employee Paul Bishop. "I didn't leave anything on the table. I gave everything I had, and it just breaks my heart. It breaks my heart."

Despite Bright's failure, Indiana remains committed to the electric vehicle industry.

Paul Mitchell, President and CEO of Energy Systems Network, a consortium of clean tech energy companies, points to the millions of federal and state dollars Indiana has put into creating an infrastructure for electric vehicles. Indianapolis has more than 100 public charging stations across the city that it hopes will help boost lagging sales of the Nissan Leaf and Chevy Volt.

Mitchell says federal dollars are essential for the emerging electric vehicle industry. But he questions the way the Department of Energy has handled its \$25 billion loan program. Only \$8 billion has been distributed since the program was created five years ago.

"I would say to the Department of Energy that this loan program, the public and the industry needs more clarity on the rules of the road for this program," said Mitchell. "Should we be pursuing these loans in order to encourage start-up companies to develop products here in the United States, and create jobs and investment? Or do we focus on private capital?"

For Waters, who saw the company go down after applying for government help, the answer is clear.

"I wish I had never have gone to the government and depended on them wholly because they cannot be trusted," said Waters. "They do not understand the free market, they do not understand technology, they do not understand success in this sector, no matter what they say."



Entrepreneur Pete Bitar sees it differently. Ten years ago, he started his company: Xtreme Alternative Defense Systems (XADS), engineering high-voltage, non-lethal weapons systems for the military. Utilizing the skills of electrical engineers in Anderson that remained from the former GM plants, Bitar built his company from a staff of two part-time employees to 21 employees today. He plans to hire 40 more employees by year's end.

"We were very methodical, slow and steady in our development," said Bitar. "We didn't take out any long-term debt or get in any investors, or anything like that."

Bitar utilized the government as a customer rather than an investor. Today, he has a \$6.7 million Department of Defense contract to produce a lightning bolt device. The device will attach to the front of a mine detector to detect and destroy roadside bombs.

Wylam says the government should get involved in the research and development phase of new technologies. And he remains confident about the future of his industry.

"I'm optimistic. It's happening. It's hard to predict exactly what forms it will take," he said. "People who are involved in the generation of electricity, the storage of electricity, the conversion of electricity to power electronics. All of these should be growth markets going forward."

But it's likely to be a future without Bright Automotive.

Former CEO John Waters says election year politics may also have played a part in the demise of Bright Automotive. Since the firestorm that followed the bankruptcy of the solar panel company Solyntra, which had received a Department of Energy loan, no further DOE loans have been approved.

Waters says the loan may have come through after the November election, but the company could not hang on that long.

The following chart shows the companies that received loans from the U.S. Department of Energy for Advanced Technology Vehicles Manufacturing, or AVTM.

PROGRAM	JOBS (CREATED/ SAVED)		DATE OF AGREEMENT	NUMBER OF PROJECTS	STATUS
	LOAN AMOUNT	SAVED)			
<b>ATM</b> PISKER AUTOMOTIVE	\$529 million	2,000	Apr 2010	2	Closed
FORD MOTOR COMPANY	\$5.917 billion	33,000	Sep 2009	13	Closed
RUSSAN NORTH AMERICA, INC.	\$1.448 billion	1,300	Jan 2010	2	Closed
TESLA MOTORS	\$465 million	1,500	Jan 2010	2	Closed

final" conditional commitment letter from the government.

The company has about 60 employees in total in Michigan and Indiana. Many are former executives and workers from General Motors Co., Ford Motor Co. and Chrysler Group LLC.

"We have been forced to say 'uncle.' As a result, we are winding down our operations," the company's CEO Reuben Munger and chief operating officer Mike Donoughe wrote Energy Secretary Steven Chu in a letter Tuesday.

The decision means the loss of hundreds of planned jobs in Indiana and Michigan, and thousands of indirect jobs, the letter said.

Bright operated out of a former Chrysler call center in Rochester Hills and spent millions of dollars trying to win low-cost government loans, said Jason Vines, a spokesman for the company. The company plans to shut down operations over the next few days.

An Energy Department spokesman didn't immediately return a call seeking comment.

The letter called the \$25 billion Advanced Technology Vehicle Manufacturing Program — created in 2007 and funded in 2008 — a "debacle." Just \$8 billion has been awarded, and only \$50 million in loans have been made since October 2009.

The pair said each letter from the government "arrived with more onerous terms than the last. The first three were workable for us, but the last was so outlandish that most rational and objective persons would likely conclude that your team was negotiating in bad faith," the company wrote. "We continued to play by the rules, even as you and your team were changing those rules constantly — seemingly on a whim."

Bright is at least the second auto startup to close up shop since December while awaiting a loan. California-based Aptera Motors Inc. closed in December after failing to win a government loan.

Last week, the pair sent Chu an urgent letter saying "time is running out" and commiserating with the department against political attacks on loan programs. "We understand the political assault and the often misguided and partisan criticism unfairly waged against you and your team," the Feb. 23 letter said, warning it could close by March 2 without action. "Irrationality and petty politics have paralyzed your agency at a time America needs you most. One cannot score if one does not shoot."

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PDF: Letter to Energy Secretary Chu from Bright Automotive

# Bright Automotive Shatters After Feds Say NO TO Loan in Solyndra's Wake



**The Huffington Post** Sharon Sike Carty First Posted: 03/ 1/2012 5:25 pm Updated: 03/ 1/2012 5:25 pm

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Another company has cried uncle and withdrawn from a federal program designed to help green companies invest in U.S. manufacturing.

Start-up auto company Bright Automotive, which was backed by Google, said it will close its doors in the next few days after it failed to secure a Department of Energy loan aimed at encouraging the development of alternative fuel vehicles. The outgoing CEO called the program "a debacle."

The administration may now be too skittish to hand out investment loans: Its first investment went to solar-panel maker Solyndra, which filed for bankruptcy two years later. And then the feds agreed to give loans to a profitable Russian steelmaker, which turned out to be a big political misstep. After a public lashing which resulted in the head of the Energy Department's loan office resigning, the loan program has become an embarrassment.

Bright Automotive, which makes hybrid delivery vans, tried for four years to get the loan. Bright, a joint venture created by the Rocky Mountain Institute, Google, Johnson Controls, the Turner Foundation and Alcoa, said it did everything the Department of Energy asked, even securing financing from General Motors -- but to no avail.

Bright CEO Reuben Munger said the company tried to work with the Department of Energy, but the terms of the loan were too onerous. "Bright has not been explicitly rejected by the DOE; rather, we have been forced to say, 'uncle,'" Munger said in a letter to Department of Energy Secretary Steven Chu. "As a result, we are winding down our operations."



intended to cut oil consumption by 730 million barrels through 2030, and is part of an attempt to reduce reliance on foreign oil.

Damien LaVera, a spokesman for Department of Energy, said the government was unable to find terms for a loan to Bright that would've ensured U.S. taxpayers would get their money back.

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"We understand that this is a difficult day for Bright Automotive and their workers," he said. "Over the last three years, the Department has worked with the company to try to negotiate a deal that supported their business while protecting the taxpayers. In the end, we were not able to come to an agreement on terms that would protect the taxpayers."

The Advanced Technology Vehicles Manufacturing Loan Program was initiated under President George W. Bush in the fall of 2007 and expanded under Obama. To date, just \$8 billion of the \$25 billion program has been allocated, to just five companies: Ford, Nissan, Fisker Automotive, Tesla, and natural-gas van maker the Vehicle Production Group.

The Energy Department had sustained two public embarrassments with its various loan programs. Solar-panel maker Solyndra was the first to receive loans, getting \$535 million in DOE loans through a Recovery Act program. It filed for bankruptcy two years later in August 2011.

The next problem followed a \$730 million loan to Russian steelmaker Severstal to manufacture lighter, high-strength steel in Dearborn, Mich., a suburb of Detroit. Rep. Darrell Issa, head of the House Committee on Oversight and Reform, argued that Severstal didn't need the loan because it was already planning to go ahead with construction, and because it was successful and didn't need taxpayer money.

"It's become too highly politicized," said Theodore O'Neill, an analyst with Wunderlich Securities. "They can't give money out, but they can't say no ... the program hasn't been cut, but nobody's getting funding either. So there's no one to blame if things go wrong."

Munger said the loans caused a Catch-22 for Bright: Private investors did not want to give the automaker money, because they were waiting to see how much the government would invest. But the government was hesitant to invest given private investors weren't stepping up. And to further complicate matters, the company couldn't do business with foreign investors for fear of causing a political uproar.

Chrysler last week backed out of its application for \$3 billion in loans, saying the requirements were too onerous. General Motors backed out last year for the same reason. Electric car maker Aptera closed down in December after failing to get loans. Next Autoworks, which also was waiting on Energy Department loans, in December said it was scaling back operations because it had not secured one.

Fisker Automotive, which makes the Fisker Karma electric sports car and plans to make an electric sedan called the Nina, has also cut back. It was granted \$527 million in loans, and received \$193 million to help make the Karma and start work on the Nina. But in early February, the Department of Energy suspended payment of its loans to Fisker, saying the company missed several business milestones.

That prompted O'Neill, the analyst from Wunderlich, to predict Fisker will file for bankruptcy this year. He had been hoping the automaker would file an IPO instead.

William Santana Li, CEO of Carbon Motors, which is also waiting on a federal loan to make more fuel-efficient police cars, expressed disappointment that Department of Energy loans are failing to help auto companies invest in American jobs. He and other U.S. companies have been trying to respond to the president's call to small-business leaders to bring jobs back to the United States.

"The leaders of these businesses did just that, for years, and we now we find the response from the DOE to be far from

# Automotive, electric-car manufacturer, says it's closing due to DOE loan process

Vehicle manufacturer Bright Automotive is closing after waiting more than three years for a decision on a DOE loan.

**Sam Stainburn** (<http://www.globalpost.com/bio/samantha-stainburn>) February 29, 2012 22:30

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Automotive, a Rochester Hills, Mich.-company that builds a plug-in hybrid light commercial delivery van, today announced that it is closing after waiting in vain for a decision for more than three years for the US Department of Energy to give it a loan, Fox News reported. (<http://www.foxnews.com/leisure/2012/02/28/gm-backed-electric-car-maker-bright-automotive-folds-slams-doe-loan-process/>).

Bright said it had withdrawn its application for a \$250 million low-interest loan from DOE's Advanced Vehicle Manufacturing program, Fox News reported.

"Bright said we received the fourth 'near final' Conditional Offer Letter since September 2010," Bright CEO David Singer and COO Mike Donoughe wrote in a letter to DOE Secretary Steven Chu, Fox News reported. "The fourth letter arrived with more onerous terms than the first three were workable for us, but the last one was so outlandish that most rational and objective people would likely conclude that your team was negotiating in bad faith."

Bright is one of several companies that have shut down because of DOE's lengthy loan process. The Wall Street Journal reported ([http://online.wsj.com/article/SB100014240052970203753704577253483780855426.html?mod=googlenews\\_wsj](http://online.wsj.com/article/SB100014240052970203753704577253483780855426.html?mod=googlenews_wsj)). And Chrysler recently withdrew a \$3 billion loan for loan funding due to what it said were onerous terms from the Energy Department.

to the Wall Street Journal:

*As it stands, the \$25 billion loan program funded in 2008 to help kick start investment in manufacturing for fuel-efficient vehicles has funded \$8.4 billion in investments. The bulk of the loans—\$5.9 billion—have gone to Ford Motor Co. to renovate plants.*



<http://photo/5694164/electric-car-2012-02-29/>

The Nissan E-NV200 electric vehicle is displayed during the preview day at the 2012 North American International Auto Show in Detroit, Mich., on Jan. 10, 2012. (Stan Honda/AFP/Getty Images)

# it quits

Company cites Energy Department bureaucracy



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Bright Automotive planned to build the Bright Idea plug-in hybrid commercial van. (Handout)



By Julie Wernke  
Tribune reporter

11:57 a.m. CST, February 29, 2012

Just when it seemed like things couldn't get worse, Indiana received more bad news on the electric vehicle front Wednesday as another promising hopeful announced it would call it quits.

Bright Automotive, which is based in Anderson, Ind., and planned to deliver 300 manufacturing jobs to the state by 2012 pending a loan from the Department of Energy's Advanced Technology Vehicle Manufacturing Program, announced Wednesday that it has withdrawn its DOE application and will wind down operations in Indiana.

In a scathing letter to Energy Secretary **Steven Chu**, Bright Automotive Chief Executive Reuben Munger and Chief Operating Officer Mike Donoughe described an overly bureaucratic process and called the department ineffective in its mission to meet President

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In the end, the company said it was the department's constantly changing terms, outlined in a series of "near final" commitment letters, that forced the company to say "nope."

"The actions — or better said 'lack of action' — by your team means hundreds of great manufacturing and technical jobs, union and non-union alike, and thousands of indirect jobs in Indiana and Michigan will not see the light of day," the man wrote.

Bright had received incentive packages at the state, county and local levels in Indiana and Michigan in its quest to build a plug-in hybrid commercial vehicle. But it said without a DOE loan, it would not be

able to move forward with its production plans.

"We understand that this is a difficult day for Bright Automotive and their workers. Over the last three years, the Department has worked with the company to try to negotiate a deal that supported their business while protecting the taxpayers. In the end, we were not able to come to an agreement on terms that would protect the taxpayers," said DOE spokesman Damien LeVesa.

The company has waited to learn the status of its application since 2009 and said it was told several times that it was weeks away from approval.

"We asked our team members on countless occasions to work literally around the clock whenever yet another new DOE requirement came down the pike," they wrote.

DOE's most recent set of conditions, combined with the long wait, the company said, were "so outlandish that most rational and objective persons would likely conclude that your team was negotiating in bad faith."

The company said it may instead decide to develop the technology in China. Officials in Indiana and Michigan could not immediately be reached for comment.

Indiana Gov. **Mitch Daniels** set out in January 2010 to make Indiana the "the electric vehicle state." Last year, Think, an electric vehicle maker in Elkhart propped up by government incentives, filed for bankruptcy. A month ago Ener1, the battery maker that was to supply the vehicle from three manufacturing facilities in Indiana, also filed for Chapter 11. In addition to Bright Automotive, another unrelated plug-in manufacturer the state tried to nurture has yet to get off the ground.

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## \$25 Billion to Promote Electric Cars Is Untouched



Jodi Hilton for The New York Times

A123 Systems, a battery maker in Massachusetts, is seeking \$1.8 billion.

By LESLIE WAYNE

Published: February 26, 2009

WASHINGTON — The future of the American auto industry is getting off to a slow start.

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The Energy Department has \$25 billion to make loans to hasten the arrival of the next generation of automotive technology — electric-powered cars. But no money has been allocated so far, even though the

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Stephen Crowley/The New York Times  
Lachlan W. Seward, director of the loan program to encourage production of electric cars.

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Jodi Hilton for The New York Times  
In Hopkinton, Mass., an A123 worker assembled battery modules.

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Jodi Hilton for The New York Times  
A123 Systems is one of 75 companies that applied for loans. The first distribution of money is expected by late April.

## Green Inc.

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established in 2007, has received applications from 75 companies, including start-ups as well as the three Detroit automakers.



With [General Motors](#) and [Chrysler](#) making repeat visits to Washington to ask for bailout money to stave off insolvency, some members of Congress are starting to ask why the Energy Department money is not flowing yet. The loans also are intended to help fulfill [President Obama's](#) campaign promise of putting one million electric cars on American roads by 2015.

"Politicians are breaking down the door asking why the money isn't being sent out," said Michael Carr, counsel to the Senate Energy Committee, which oversees the Energy Department.

It is a question that Lachlan W. Seward, director of the program, says he hears a lot these days. "We're moving with a sense of urgency," said Mr. Seward, who also oversaw the Chrysler Loan Guarantee Board from 1981 to 1984. "But at the same time we are trying to do this in a responsible way that reflects prudent credit policy and taxpayer protections."

Energy Department staff members said they were still sifting through loan applications, dozens of which arrived on the filing deadline of Dec. 31. On top of that, another \$2 billion is coming to the department from the \$787 billion [stimulus package](#). That money will be used to develop the advanced battery technology needed to power electric cars, batteries more durable, safer and cheaper than anything available today.

Until now, the program has gotten caught in the shifting priorities of two administrations. The program was not funded until September 2008. Then, the Bush administration considered using the

Senator [Evan Bayh](#), Democrat of Indiana, wrote Secretary Chu on Jan. 23, two days after he was sworn in, to say the agency is “under an obligation to issue the loans as soon as possible.”

Senators [Dianne Feinstein](#), Democrat of California, and [Olympia J. Snowe](#), Republican of Maine, who have led a bipartisan effort to increase fuel-mileage standards, followed with a letter calling for an “aggressive timeline” in issuing loans.

In response, Dr. Chu announced last week that the first loans would be made by late April or early May, adding that the program’s paperwork would be simplified and more staff would be hired.

There are complicating factors. Money can be given only to companies and projects that are deemed “financially viable.” G.M. and Chrysler, which have applied for a combined \$13 billion from the Energy Department, must wait until the end of March for the Obama administration to decide whether the companies’ restructuring plans would make them viable.

The program’s small staff — around a dozen part- and full-time employees — must also sort through complicated proposals, up to 1,000 pages long. Many of the applicants have lined up members of Congress to pressure the department. Meanwhile, smaller companies say they fear the bulk of the money will be directed to the Detroit automakers.

Still, with credit markets tight, the program represents a rare source of financing to develop electric-vehicle technology.

“No one else out there will take on this risk,” said Mr. Seward. “It reminds me of the time at the dawn of the auto age when you had hundreds of companies making hundreds of kinds of cars and then they all coalesced. We are back in that era of invention again.”

The Energy Department has whittled the initial 75 loan applications, which seek a total \$38 billion, down to 25 for a second round of reviews. General Motors is requesting \$8.3 billion, earmarking a portion for the Chevy Volt, a plug-in hybrid. [Ford Motor](#) is asking for \$5 billion for a variety of electric car retooling programs and Chrysler, a unit of Cerberus Capital Management, is asking for around \$5 billion. Even Nissan said it has submitted an application for one of its American plants that meet the program’s criteria.

an option," said Charles Gassenheimer, chief executive of Enermax. "We would build batteries without government help. But government is launching the business in a mass way in the United States."

Japan and China are currently the leaders in producing the batteries used in computers and other portable electronics.

Electrical Products, a Cincinnati company that converts Saturn Sky electric vehicles, has asked for a \$20 million loan. Stephen Burns, the company's chief executive, even dropped off his application by driving one of the vehicles to the agency and giving members of Congress a ride.

"That money would be a big step for us," said Mr. Burns. "We can function without it, but we'd be on steroids."



Today Carbon Motors Corporation, a homeland security technology company, announced that the U.S. Department of Energy (DOE) has indicated that it will not proceed with Carbon's \$310 million application for a direct loan under the Advanced Technology Vehicle Manufacturing (ATVM) program. The ATVM program was established during the Bush administration and continued under the Obama administration.

"We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly-charged, election year environment. Since Solyndra became politicized last fall, the DOE has failed to make any other loans under the ATVM program, has pulled back one loan that it previously committed and, as of this month, the DOE has pushed aside the three remaining viable loans under active consideration," said William Santana Li, chairman and chief executive officer, Carbon Motors Corporation. "Each of these applicants has been caught for several years in a costly and extensive DOE due diligence process. Carbon Motors simply appears to be the last victim of this political gamesmanship. In failing to deploy the tax dollars that Congress allocated for the creation of advanced technology manufacturing jobs in the U.S., the DOE ATVM program represents a glaring failure of the Obama Administration to create jobs that are clearly within its power to create," commented Li.

General Motors, Chrysler, Next Auto, Aptera, Bright Automotive and Carbon Motors all suffered through the horrendous DOE process that ended in nothing but a vote against the American worker. It clearly indicates an irrational pattern of rejecting or forcing withdrawals of viable applications of all sizes, both from established companies and promising manufacturing start-ups, according to Li.

"Similar to the experiences of other applicants, we spent over 30 months responding to every request made of us by the DOE -- many of which were at best challenging and at worst, unnatural," said Li. "During the past year we were in almost daily contact with the DOE staff and were neither advised that our application was coming up short in any way, nor told that there was anything we would need to do in order to finalize the loan that we did not satisfy. On the contrary, up until we were told the DOE would no longer work on our application, we had been assured that it was a top priority for the DOE and encouraged to continue with the multi-million dollar due diligence and negotiation process. Our experience, when viewed in light of the situation with other applicants, makes it hard to conclude that this action is anything other than a political decision to avoid further scrutiny of the ATVM loan program and of DOE officials," described Li.

The Company noted that in recent months the DOE had gone so far as to send members of its loan monitoring team to meet with Carbon Motors in Indiana, and then subsequently requested a follow-up meeting in Washington DC. The loan monitoring team's role is to monitor DOE loans and work with borrowers after the loan has closed. These professionals do not play a material role in the process until a loan is finalized, which supported the Company's view that the DOE had not identified any material issues with the Carbon business plan that would impede the approval of the loan. In addition, in recent months the

The Company's plan submitted to the DOE included the creation of over 1,000 direct jobs in Connersville, Indiana, one of the areas hardest hit by the prevailing economic malaise, and approximately 10,000 total direct and indirect jobs throughout the country. "Bureaucrats in Washington may view inaction as the safest bet for them personally, but those who are without jobs today in Connersville and facing a very uncertain future have a very different view. Sadly, many of the people who are now in desperate need of a job in our country's heartland had contributed their hard earned tax dollars to the very fund that the DOE now appears unwilling to distribute to qualified candidates," said Li. The Company noted that the ATVM legislation passed by Congress and the Bush Administration included a loan loss assumption of 30% on the entire portfolio, which is reflective of the fact that there is always some inherent risk in funding a business of any size and new jobs will not be created in a risk-free environment -- that is the essence of "Advanced Technology" reflected in the name of the program.

"Although the DOE's new found focus on protecting taxpayer interest may be a good talking point for the media, in this particular case, it fails to ring true. The highly efficient Carbon E7 vehicle would have had dramatic savings for the U.S. taxpayer and every city, county and state struggling with budget deficits. The DOE's thoughtless decision just cost the U.S. taxpayer over \$10 billion dollars of potential savings," noted Li.

The Company sourced approximately \$200 million of matching funds from a variety of private and state and local government sources, which, together with the ATVM loan, would put into effect one of the Company's stated goals of creating a true public-private partnership. "The truth is, government funds are already being used to pay for law enforcement vehicle substitutes -- many of which function very effectively as retail passenger cars and none of which function well for the unique law enforcement mission," stated Stacy Dean Stephens, co-founder of Carbon Motors Corporation and a former law enforcement officer. "It is a basic role of government to protect its citizens. The Carbon ATVM loan (which would have been paid back with interest) would simply have ensured that the taxpayers were getting their money's worth as law enforcement end users would benefit from using safe and efficient products that actually work well for their mission," Stephens said.

The decision is made even more puzzling when viewed in light of two of President Obama's Executive Orders: one calling for a 30% improvement in fuel efficiency among federal vehicle fleets, and one for coordinating policies on automotive communities and workers recovering from the Great Recession. "These goals are not going to be satisfied by simply wishing them to be -- they require leadership by those in a position to deliver results," noted Stephens. By approving Carbon's ATVM loan, the DOE would have supported both of these Presidential Executive Orders putting 10,000 Americans back to work and reducing the fuel consumption of the 500,000+ law enforcement vehicles by up to 40%. The merits of the loan application were detailed in a letter to the President's Cabinet on December 15, 2011 ([click here for letter](#)).

Carbon Motors has received substantial bipartisan political support of its business plan and

In a statement Wednesday, Carbon Motors Chairman and CEO William Santana Li said he and others at the company were "outraged by the actions of DOE." The statement said "it is clear that this was a political decision in a highly charged, election-year environment" and went on to cite the controversy surrounding loans made to bankrupt solar-company Solyndra, which have fueled Republican criticism on Capitol Hill.

DOE spokesman Damien LaVera said the agency and Carbon Motors tried but failed to "negotiate a deal that supported their business while protecting the taxpayers." The department does not comment on the specific rationale behind funding decisions.

Carbon Motors was pursuing its loan under a program – unlike the one for the Solyndra loan – aimed at investing in companies working on advanced vehicle technology. But the company suggested that the fallout from Solyndra has been widespread with the agency rejecting one ATVM loan it had previously offered on a conditional basis – a \$730-million loan to Dearborn-based steel-maker Severstal North America – and ignoring other "viable loans under active consideration."

Li, a former Ford Motor executive, said Carbon "simply appears to be the last victim of this political gamesmanship" and said failing to award money still in the Advanced Technology Vehicle Manufacturing Program "represents a glaring failure of the Obama administration to create jobs that are clearly within its power to create." He said the company spent more than 30 months answering DOE requests for information and was never told that

# on Motors CEO 'Stunned' By Department of Energy's Lo tion

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ators wants to build a police car similar to this prototype.

tomaker is crying foul, saying politics played into the Department of Energy's decision to reject its loan request to manufacture fuel-efficient police cars.

ators is the seventh automaker to have Energy Department officials reject its application from the Advan

Vehicle Manufacturing program – or to simply withdraw from the process. The department has allocated only \$3 billion of the \$25 billion available.

Critics say the slow disbursement of funds has followed last summer's controversy of solar panel maker Solyndra filing for bankruptcy just two years after receiving an Energy Department loan through another program.

"I'm furious," said William Santana Li, Carbon Motors' CEO, hours after receiving the rejection letter.

Carbon Motors, which has yet to build the high-powered fuel-efficient police car it hopes would grab a big chunk of the municipal police car market in the United States, asked for \$310 million through the advanced car technology program.

"This was a complete blind side," said Santana Li. "We've been working with them for 30 months," he said about Energy Department officials.

Republicans [are using the fate of](#) two high-profile Energy Department loan programs in their campaign speeches as evidence, they say, that the Obama administration is ineffective.

The administration has denied that politics play a role in handing out money through any of its green investment programs. "The department is committed to balancing our goal of supporting innovative projects that can promote the development of clean vehicles in the United States with our responsibility to be good stewards of the taxpayers' money," spokesman Damien DeVera said.

The Energy Department's Advanced Technology Vehicle Manufacturing program was initiated during the administration of President George Bush in the fall of 2007 and expanded under the Obama administration. The \$8 billion allocated has gone to just five companies: Ford, Nissan, Fisker Automotive, Tesla, and natural-gas van maker the Vehicle Production Group.

The political fallout for the Obama administration over its investment into green companies first arose with a grant to solar-panel maker Solyndra, through a Recovery Act program intended to create jobs. The company filed for bankruptcy in August 2011.

After a public rebuking of Energy Department officials from the House Committee on Oversight and Government Reform, [the head of the department's loan office resigned](#).

More controversy ensued after Energy Department officials agreed to give a \$730 million advanced car tech loan to profitable Russian steelmaker, Severstal, for the manufacturing of light, high-strength steel in Dearborn, Mich. Rep. Darrell Issa, head of the House oversight panel, argued that Severstal didn't need the loan because it was already planning to go ahead with construction and because it was successful and didn't need taxpayer money. [The Energy Department decided in January to not finalize the loan](#).

And there have been more public embarrassments for the Energy Department, as automakers have pulled out of the application process for the advanced car tech loans and declared the program ineffective. In February, Chrysler backed out of an application for \$3 billion in loans, saying the requirements were too onerous. General Motors backed out last year for the same reason.

Other executives simply gave up. Electric carmaker Apera closed down in December after failing to get loans. Next Auto works, which also had been waiting to hear about an Energy Department loan, said in December it was scaling back operations because it had not secured one.

Fisker Automotive, which makes the Fisker Karma electric sports car and plans to make an electric sedan called the Nina, has laid off workers while it renegotiates its loan with federal officials. The Energy Department granted Fisker \$527 million in loans; of that, it received \$193 million to help make the Karma and start work on the Nina. In early February, the Department of Energy suspended payment of its loans to Fisker, saying the company missed several business milestones.

The Energy Department has received hundreds of applications for its advanced car technology program, with some companies still waiting for a decision. Some loan applications never made it through the initial screening. One applicant asked for funding to make a parrot-powered car. Another wanted to make a three-wheeled car. And yet another asked for an investment to manufacture an inflatable car.

Santana Li said he was dismayed because he felt his company's loan was well received by Energy Department officials and was progressing through the process, albeit slowly. The Energy Department flew out some loan managers in November to Carbon Motors' manufacturing site in November, which Santana Li said he took as a positive sign.

Though Santana Li is stunned by the Energy Department's decision, he said he is looking for new investors.

county with the highest unemployment rate in Indiana.

Carbon officials and Mayor Leonard Urban learned of the DOE decision in a letter Tuesday. Carbon Motors applied for the loan 30 months ago and until the letter came, they had no indication the company wouldn't receive it, Urban said.

Urban and Carbon Motors CEO and Chairman William Santana Li said Wednesday this election-year decision was political, and not based on the company's prospects. Li said he's outraged by the DOE's action. The company had completed the final step of negotiating loan terms and a loan monitoring team visited Connersville late last year, discussing how and when reports would be made, he said.

"The loan was eminent. Why would the mayor and I start refurbishing the building if it wasn't?" Li asked. "We had construction workers on the roof today. We were one signature away from putting thousands of people to work. The Department of Energy turned its back on the people of Connersville. For 30 months the federal government held us hostage in this process. I'd like to meet (DOE) Secretary (Steven) Chu in Connersville in front of 10,000 people and let him tell them we're not going to put them back to work."

Chu was in Indianapolis on Monday and was asked by media about Carbon Motors' loan and Chu indicated the loan process was still moving forward, Urban said.

# Carbon Motors ATVM Loan Caught in DOE Political Crossfire

Decision Not to Proceed with ATVM Loan is a Failure of Leadership

by Carbon Motors Corporation • March 07, 2012

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Carbon Motors is pleased to announce that the U.S. Department of Energy (DOE) has approved the ATVM loan guarantee program. This program will provide financing for the purchase of ATVMs to eligible customers. The program is a key component of Carbon Motors' commitment to providing financing solutions for our customers. The program will be implemented in the second half of 2012. For more information on the program, please contact your Carbon Motors representative.



Carbon Motors Corporation  
10000 Carbon Motors Drive  
Detroit, MI 48215  
www.carbonmotors.com

Carbon Motors Will Continue the Fight

Company Exploring Strategic and Financing Alternatives

"We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly-charged, election year environment. Since Solyndra became politicized last fall, the DOE has failed to make any other loans under the ATVM program, has pulled back one loan that it previously committed and, as of this month, the DOE has pushed aside the three remaining viable loans under active consideration," said William Santana Li, chairman and chief executive officer, Carbon Motors Corporation. "Each of these applicants has been caught for several years in a costly and extensive DOE due diligence process. Carbon Motors simply appears to be the last victim of this political gamesmanship. In failing to deploy the tax dollars that Congress allocated for the creation of advanced technology manufacturing jobs in the U.S., the DOE ATVM program represents a glaring failure of the Obama Administration to create jobs that are clearly within its power to create," commented Li.

General Motors, Chrysler, Next Auto, Aptera, Bright Automotive and Carbon Motors all suffered through the horrendous DOE process that ended in nothing but a vote against the American worker. It clearly indicates an irrational pattern of rejecting or forcing withdrawals of viable applications of all sizes, both from established companies and promising manufacturing start-ups.

"Similar to the experiences of other applicants, we spent over 30 months responding to every request made of us by the DOE - many of which were at best challenging and at worst, unnatural," said Li. "During the past year we were in almost daily contact with the DOE staff and were neither advised that our application was coming up short in any way, nor told that there was anything we would need to do in order to finalize the loan that we did not satisfy. On the contrary, up until we were told the DOE would no longer work on our application, we had been assured that it was a top priority for the DOE and encouraged to continue with the multi-million dollar due diligence and negotiation process. Our experience, when viewed in light of the situation with other applicants, makes it hard to conclude that this action is anything other than a political decision to avoid further scrutiny of the ATVM loan program and of DOE officials," described Li.

The Company noted that in recent months the DOE had gone so far as to send members of its loan monitoring team to meet with Carbon Motors in Indiana, and then subsequently requested a follow-up meeting in Washington DC. The loan monitoring team's role is to monitor DOE loans and work with borrowers after the loan has closed. These professionals do not play a material role in the process until a loan is finalized, which supported the Company's view that the DOE had not identified any material issues with the Carbon business plan that would impede the approval of the loan. In addition, in recent months the DOE staff held several meetings with Carbon's key partners, suppliers, investors and state and local officials and in each case, these parties were left with the impression that a positive decision on the loan was imminent. The Company expected the DOE to negotiate in good faith and, after several years of positive assurances, advise the Company if there were any real substantive issues with the plan that would need to be addressed in order to close the loan. The Company was not given any indication of any substantive issues and instead was blindsided by government officials that simply failed to exhibit any real leadership in the face of typical election year political mudslinging.

Carbon Motors is developing the world's first and only purpose-built law enforcement patrol vehicle, amid strong interest in its breakthrough "E7" product from law enforcement both domestic and foreign. The Company has received over 20,000 reservations for the "E7" vehicle from over 500 law enforcement agencies spread across all 50 U.S. states, in addition to interest in the product for export received from over 35 foreign law enforcement jurisdictions.

As a truly purpose-built product, the E7 represents a substantial innovative step over the retail passenger vehicles that have historically been retrofitted in the aftermarket, with great improvements in areas such as occupant safety, operating cost, mission effectiveness and environmental impact, to mention just a few. "The E7 will be designed to meet all Federal Motor Vehicle Safety Standards with all law enforcement equipment installed, will increase fuel efficiency by up to 40% over the gas-guzzlers used today and, importantly, will satisfy substantially all requirements of the law enforcement mission," said Li.

The Company's product strategy includes a state-of-the-art fuel-efficient clean diesel engine mated to an 8-speed transmission, and has been supported by over 50 world-class development partners and suppliers - many of whom have had their businesses materially impacted by this failure of leadership by the DOE. The ATVM loan, together with the equity and other funding dedicated to the project was to be used to complete the development work on the vehicle in the U.S., as well as the tooling and facility costs necessary to produce the E7.

The Company's plan submitted to the DOE included the creation of over 1,550 direct jobs in Connersville, Indiana, one of the areas hardest hit by the prevailing economic malaise, and approximately 10,000 total direct and indirect jobs throughout the country. "Bureaucrats in Washington may view inaction as the safest bet for them personally, but those who are without jobs today in Connersville and facing a very uncertain future have a very different view. Sadly, many of the people who are now in desperate need of a job in our country's heartland had contributed their hard earned tax dollars to the very fund that the DOE now appears unwilling to distribute to qualified candidates", said Li. The Company noted that the ATVM legislation passed by Congress and the Bush Administration included a loan loss assumption of 30% on the entire portfolio, which is reflective of the fact that there is always some inherent risk in funding a business of any size and new jobs will not be created in a risk-free environment - that is the essence of "Advanced Technology" reflected in the name of the program.

"Although the DOE's new found focus on protecting taxpayer interest may be a good talking point for the media, in this particular case, it fails to ring true. The highly efficient Carbon E7 vehicle would have had dramatic savings for the U.S. taxpayer and every city, county and state struggling with budget deficits. The DOE's thoughtless decision just cost the U.S. taxpayer over \$10 billion dollars of potential savings," noted Li.

The Company sourced approximately \$200 million of matching funds from a variety of private and state and local government sources, which, together with the ATVM loan, would put into effect one of the Company's stated goals of creating a true public-private partnership. "The truth is, government funds are already being used to pay for law enforcement vehicle substitutes - many of which function very effectively as retail passenger cars and none of which function well for the unique law enforcement mission," stated Stacy Dean Stephens, co-founder of Carbon Motors Corporation and a former law enforcement officer. "It is a basic role of government to protect its citizens. The Carbon ATVM loan (which would







#### Carbon

Carbon Motors was denied a DOE loan for a more efficient police cruiser.

By [Jake Lingeman](#) on 3/08/2012

Carbon Motors, an Indiana-based company that aims to build police vehicles, said on Wednesday that the Department of Energy has denied its application for a loan under the Advanced Technology Vehicle Manufacturing program.

The loan program was created under President George W. Bush and continued with President Barack Obama. It's a \$25 billion plan funded by Congress to provide capital to the automotive industry for backing vehicles that meet higher mileage requirements and lessen the country's dependence on foreign oil.

Production of the Carbon Motors E7 was supposed to begin this year. The company says it has received reservations for the car from more than 500 law-enforcement offices. According to the company Web site, the E7 will use an aluminum spaceframe structure and will be built to survive a 75-mph rear impact. Carbon [signed a deal with BMW](#) in 2010 to provide 240,000 3.0-liter diesel engines for the cars.

"We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly charged, election-year environment," William Santana Li, Carbon Motors Corp. chairman, said in a statement. "Since Solyndra became politicized last fall, the DOE has failed to make any other loans under the ATVM program, has pulled back one loan that it previously committed."

Carbon said it was in daily contact with the DOE and wasn't told that its application was coming up short. It also said that until it was told that the DOE would no longer work on the application that it had been assured it was a top priority and was encouraged to continue with the multimillion-dollar negotiation process.

Despite the anger from Carbon Motors, the DOE said it acted accordingly:

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company's website. <sup>[10]</sup> At least 14 members of Congress, including Senator Richard Lugar, an Indiana Republican, wrote to the Energy Department in support of Carbon Motors's application, according to letters provided by the agency. "Over the last two and a half years, the department has worked with Carbon Motors to try to negotiate a deal that supported their business while protecting the taxpayers," **Damien LaVera**, an Energy Department spokesman, said in an e-mail. "While we were not able to come to an agreement on terms that would protect the taxpayers, we continue to believe that Carbon Motors is an innovative company with an interesting project and we wish them luck." <sup>[11]</sup> Up until we were told the DOE would no longer work on our application, we had been assured that it was a top priority for the DOE and encouraged to continue with the multi-million dollar due diligence and negotiation process. Our experience, when viewed in light of the situation with other applicants, makes it hard to conclude that this action is anything other than a political decision to avoid further scrutiny of the ATVM loan program and of DOE officials," described Li. The Company noted that in recent months the DOE had gone so far as to send members of its loan monitoring team to meet with Carbon Motors in Indiana, and then subsequently requested a follow-up meeting in Washington DC. The loan monitoring team's role is to monitor DOE loans and work with borrowers after the loan has closed. These professionals do not play a material role in the process until a loan is finalized, which supported the Company's view that the DOE had not identified any material issues with the Carbon business plan that would impede the approval of the loan. In recent months the DOE staff held several meetings with Carbon's key partners, suppliers, investors and state and local officials and in each case, these parties were left with the impression that a positive decision on the loan was imminent. <sup>[12]</sup>

Stephens says that the company has sourced over \$200 million in private matching funds as part of the loan requirements and began constructing a new headquarters building in Connersville, Ind., where the car was to be manufactured at a former brownfield site, creating over 1,500 jobs. The automaker's CEO, William Li, says his company is outraged by what it calls a "political decision in a highly charged, election-year environment," caused by the fallout from the bankruptcy of Energy loan recipient Solyndra last fall. The move by the Energy Department comes one week after another Indiana startup working on a plug-in hybrid van, Bright Automotive, closed down after dropping its pursuit of a similar loan it originally applied for in 2008, saying it could no longer wait for the agency to act on the application. Carbon Motors has no plans to shut down at this point and says it is "examining strategic and financing alternatives." <sup>[13]</sup> In July 2009, Li proclaimed Connersville "the police car capital of the world" and promised 1,550 new jobs making high-tech police cars. His goal was to begin production in 2012, but he lacked the capital to do it without the DOE loan. In an interview with Eyewitness News Wednesday, Li said the DOE "turned its back" on Carbon Motors and the city of Connersville. He called the decision not to give Carbon Motors the loan a "foolish" one, and accused the DOE of holding Carbon Motors and the City of Connersville "hostage" for 33 months. Li said his company still has the backing of private investors and a billion-dollar backlog of orders, and that he will try to remain in Connersville. "We're deeply disappointed for the people of Connersville and those who tried to bring this promising business here. It would have

\$310 million loan to Carbon Motors Corp., the Connersville company announced today. [\[12\]](#) The Department of Energy has denied Carbon Motors' \$310 million loan request, leaving the Connersville start-up's future uncertain. [\[9\]](#)

United States Energy Secretary Steven Chu says his department still wants to move forward on a \$335 million federal loan to Carbon Motors Corp. in Connersville, but only if a reasonable chance of repayment is written into the contract. [\[13\]](#)

The DOE in 2009 approved green car loans worth nearly \$8.5 billion under the program for four companies, but since has approved just one \$50 million loan. (The bulk of the early money went to Ford Motor Co. -- \$5.9 billion -- to retrofit assembly lines for fuel-efficient cars.) That leaves roughly \$16.5 billion remaining from the amount Congress authorized for loans for advanced technology vehicles. Carbon Motors officials blame the department's decision to turn its project down -- and failure to approve any recent loans -- on skittishness in the wake of the [failure of Solyndra](#). [\[4\]](#) The Connersville, Indiana-based company said today it had asked for \$310 million in financing from the Advanced Technology Vehicle Manufacturing program, which last week declined to give Bright Automotive Inc. a loan to develop electric commercial vans. [\[9\]](#) Carbon applied for a direct loan more than two years ago under the Advanced Technology Vehicle Manufacturing (ATVM) program, which was established during the Bush administration and continued under the Obama administration. [\[12\]](#) "Each of these applicants has been caught for several years in a costly and extensive DOE due diligence process. Carbon Motors simply appears to be the last victim of this political gamesmanship. In failing to deploy the tax dollars that Congress allocated for the creation of advanced technology manufacturing jobs in the U.S., the DOE ATVM program represents a glaring failure of the Obama Administration to create jobs that are clearly within its power to create." [\[6\]](#)

According to the Carbon Motors News Release the DOE is back tracking on previous commitments it's made to other companies and is ignoring the three remaining loans asking to be apart of the program. William Santana Li, chairman and chief executive officer of Carbon Motors expressed that, "the DOE ATVM program represents a glaring failure of the Obama Administration to create jobs that are clearly within its power to create." [\[11\]](#)

"The truth is, government funds are already being used to pay for law enforcement vehicle substitutes -- many of which function very effectively as retail passenger cars and none of which function well for the unique law enforcement mission," stated Stacy Dean Stephens, co-founder of Carbon Motors Corporation and a former law enforcement officer. "It is a basic role of government to protect its citizens. The Carbon ATVM loan (which would have been paid back with interest) would simply have ensured that the taxpayers were getting their money's worth as law enforcement end users would benefit from using safe and efficient products that actually work well for their mission." Stephens said. [\[3\]](#) According to the Carbon Motors, it has received

cuts across party lines and would have a positive impact on every highway, every street, every city, town, airport, road, port and congressional district. [3] Carbon Motors is set to develop the world's first and only purpose-built law enforcement patrol vehicle and has already received over 20,000 reservations from over 500 law enforcement agencies in the U.S. and 35 from around the world. [11]

Carbon Motors Corporation is a bold homeland security technology company on a critical mission to design, develop, manufacture, distribute, service, and recycle, the world's first and only portfolio of purpose-built law enforcement patrol vehicles. [3] The E7 vehicle being developed by Carbon Motors is the world's first and only purpose-built law enforcement patrol vehicle. [3]

"The E7 has been designed to meet all Federal Motor Vehicle Safety Standards with all law enforcement equipment installed, will increase fuel efficiency by up to 40% over the gas-guzzlers used today and, importantly, will satisfy substantially all requirements of the law enforcement mission," said Li. The Company's product strategy includes a state-of-the-art fuel-efficient clean diesel engine mated to an 8-speed transmission, and has been supported by over 50 world-class development partners and suppliers -- many of whom have had their businesses materially impacted by this failure of leadership by the DOE, according to Li. [3] The Company has received over 20,000 reservations for the "E7" vehicle from over 500 law enforcement agencies spread across all 50 U.S. states, in addition to interest in the product for export received from over 35 foreign law enforcement jurisdictions. As a truly purpose-built product, the E7 represents a substantial innovative step over the retail passenger vehicles that have historically been retrofitted in the aftermarket, with great improvements in areas such as occupant safety, operating cost, mission effectiveness and environmental impact, to mention just a few. [3]

The company planned to use the money to produce a purpose-built, fuel-efficient law enforcement vehicle called the E7 for police and use. [5] The company has received over 20,000 reservations for the "E7" vehicle from over 500 law enforcement agencies. [8]

We remain honored to have had received so much support from leaders of all political stripes from around the country," said Li. The Company is actively examining its strategic and financing alternatives in support of its goal to provide law enforcement first responders with a purpose-built tool suitable for their critical mission. "Our country was not built by those who stood on the sidelines or by those who hid behind political convenience or by those too scared to lead. [3]

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**"We have a much better asset today than we had three years ago," said Pete Bell, with Connersville Economic Development Department.** Late Wednesday afternoon Carbon Motors announced plans to open are on hold. [Company](#)

a statement. [1]

Carbon Motors was counting on the loan to establish a major manufacturing plant in Indiana. The company, founded in Georgia, announced in 2009 that it had selected the Fayette County community of Connersville in mideastern Indiana to manufacture its [police cruiser](#) in a 1.8-million-square-foot facility formerly occupied by Visteon Corp. The company said it could ultimately employ more than 1,500 workers. [2] Carbon Motors Corp. said it won't get a U.S. Energy Department loan it applied for to develop more fuel-efficient police cars. [10] Carbon Motors spokesman Stacy Stephens tells FoxNews.com that the company was blindsided by the decision after being engaged in positive discussions with the government agency for the past 30 months, having recently been told by officials that it was "the number one priority of the Department of Energy." When Energy Secretary Steven Chu visited Indianapolis on Monday, he told reporters that the department wanted to go forward with the loan but that it has "a responsibility to the taxpayers and they need to make sure it's written in the statute that there's a reasonable chance of repayment," according to WIBC radio. [3] Carbon Motors said it has raised approximately \$200 million of matching funds from a variety of private and state and local government sources, which, together with the ATVM loan, would put into effect one of the Company's stated goals of creating a true public-private partnership. [8]

Bright [called it quits](#) late last month after it gave up on receiving a \$450 million DOE loan. "Each of these applicants has been caught for several years in a costly and extensive DOE due-diligence process," Li said. "Carbon Motors simply appears to be the last victim of this political gamesmanship." [7]

As President Reagan once said, "When you get in bed with the federal government, you get a lot more than a good night's sleep." Indianapolis TV station WRTV reports that DOE Secretary Steven Chu, who visited there this week, refused to talk about the loan for Carbon Motors. [2] Carbon Motors said it had working under the assumption it would receive the loan for almost 30 months. [7]

Carbon Motors Corp., which hoped to create hundreds of jobs and thousands of high-tech, fuel-efficient police cars in Indiana, announced a major setback Wednesday. [7] In May 2009, Carbon Motors executives announced plans to move to the old Visteon building in Connersville and bring 1,500 jobs. [14]

Carbon Motors officials said they had been assured their application to build a new plant, and create an estimated 1,500 jobs, was nearing approval. [4] Local leaders hoped Carbon Motors could provide hundreds, even thousands, of jobs for the city and region. Company officials say they are examining financing alternatives. [12]

The company also plans to recycle all vehicles it sells. Carbon Motors already had about 20,000 reservations for their cars. [2] Carbon Motors police cars are planned to run on diesel fuel, saving vast amounts of energy compared to gasoline cars while lasting for hundreds of thousands of miles. [2] Carbon Motors is developing a new

Indiana Governor Mitch Daniels was on hand in Connersville two years ago when the company, which then had a headquarters in Georgia but no plant, announced it would move to Connersville. "We're deeply disappointed for the people of Connersville and those who tried to bring this promising business here. It would have been far better if the federal government had never gone into the banking business. [2] Sources said the DOE will want to move forward, but only if a reasonable chance of repayment is written into the contract. "We're deeply disappointed for the people of Connersville and those who tried to bring this promising business here. It would have been far better if the federal government had never gone into the banking business. [6]

▲ [BACK TO TOP](#)

***The Company's plan submitted to the DOE included the creation of over 1,550 direct jobs in Connersville, Indiana, one of the areas hardest hit by the prevailing economic malaise, and approximately 10,000 total direct and indirect jobs throughout the country.*** "Bureaucrats in Washington may view inaction as the safest bet for them personally, but those who are without jobs today in Connersville and facing a very uncertain future have a very different view. Sadly, many of the people who are now in desperate need of a job in our country's heartland had contributed their hard earned tax dollars to the very fund that the DOE now appears unwilling to distribute to qualified candidates," said Li. "Although the DOE's new found focus on protecting taxpayer interest may be a good talking point for the media, in this particular case, it fails to ring true. [3] Our partners at Network Indiana/WIBC report Connersville Mayor Leonard Urban says without the loan, the plan to build fuel-efficient police cruisers and the creation of 1,500 jobs are in doubt. [13] The homeland security technology company has waited several years for the loan and wanted to build the next generation of the American police car three years after receiving the federal money. [6] The company originally applied for the funding in early 2010. The police car manufacturer announced in July 2009 plans to locate its headquarters and production facility in the former Visteon building. [13]

The company had planned to hire more than 1,500 people in Fayette County but they announced Wednesday they will not get a loan from the Department of Energy to proceed. [15] Solyndra was a solar company that quickly used up more than half a billion dollars in Department of Energy loans before going bankrupt, leading to massive criticism of the Obama administration for making the loans. [2] Solyndra became the first alternative energy company to receive a loan guarantee under the stimulus-loan program that President Barack Obama promoted. [7]

The news comes 30 months after the company first applied under a special green car loan program. [4]

In simple terms the company's \$315 million loan application to fund the move to



company went bankrupt in September, Republicans seized on it to criticize the administration. "We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly-charged, election year environment," CEO William Li said in a prepared statement. [1] The company said it was the "victim of a political decision in a highly-charged, election year environment" and it is "outraged by the actions of the DOE and it is clear that this was a political decision in a highly-charged, election year environment," Li said in a press release. [18]

***Company expected the DOE to negotiate in good faith and, after several years of positive assurances, advise the Company if there were any substantial issues with the plan that would need to be addressed in order to close the loan. [3]***

[2] The ATVM loan, together with the equity and other funding dedicated to the development of the vehicle, was to be used to complete the development work on the vehicle in order to produce the E7. [3] as the tooling and facility costs necessary to produce the E7. [3]

**NOTICE: Submitting Company Confidential, Proprietary, or Privileged Information with Loan Applications**

If elements and/or attachments of an application for a loan under Section 136 of the Energy Independence and Security Act of 2007 (the U.S. Department of Energy's [DOE] Advanced Technology Vehicles Manufacturing Incentive Program) contain information the applicant considers to be trade secret, confidential, privileged or otherwise exempt from disclosure under the Freedom of Information Act (FOIA, 5 U.S.C. 552), the applicant shall assert a claim of exemption at the time of application by placing the following text on the **first** page of the application, and specify the page or pages of the application to be restricted:

*"The data contained in pages [\_\_\_\_\_] of this document which hereby forms a part of the application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that, if this applicant is issued a loan under Section 136 of the Energy Independence and Security Act of 2007 as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data herein, other than such data that have been properly reasserted as being trade secret or proprietary in the loan agreement. This restriction does not limit the government's right to use or disclose data obtained without restriction from any source, including the applicant."*

To further protect trade secret, confidential, privileged or otherwise exempt information, each line or paragraph on the page or pages containing such data must be specifically identified and marked with text that is similar to the following:

*"The following contains proprietary information that [name of applicant] requests not be released to persons outside the Government, except for purposes of review and evaluation."*

# FEDERAL FINANCING BANK

Notes to Financial Statements  
 September 30, 2009 and 2008  
 (Dollars in thousands)

Loans receivable at September 30, 2009 and 2008, consist of the following:

Agency	2009	2008
Rural Utilities Service, Department of Agriculture	\$ 25,391,164	22,693,499
Credit Liquidity Fund, National Credit Union Administration	18,384,062	1,109,161
U.S. Postal Service	10,200,000	7,200,000
Rural Utilities Service, Department of Agriculture certificates of beneficial ownership	3,047,025	3,632,550
General Services Administration	2,037,215	2,097,771
Department of Energy	907,680	-
Low Rent Public Housing, Department of Housing and Urban Development	586,974	691,412
Foreign Military Sales, Department of Defense	545,376	680,365
Historically Black Colleges and Universities, Department of Education	453,298	338,466
Ship Leasing, Department of Defense, Navy	-	16,623
Small Business Administration	5,379	10,046
Veteran Administration Transitional Housing Program	4,889	4,940
Federal Railroad Administration, Department of Transportation	1,786	2,035
Total loans receivable	\$ 61,564,851	38,476,868

+ \$ 17

## CO-GUARANTEED LOANS

### TECHNOLOGY VEHICLES MFG

Company	3/03	\$1,634,715.00	9/16/19	2.385
Company	3/03	\$5,735,723.00	9/15/22	2.860
Company	3/15	\$34,975,308.00	3/15/18	1.932
Company	3/18	\$341,300,000.00	6/15/22	2.581
Company	3/18	\$64,600,000.00	6/15/22	2.581
Company	3/18	\$1,369,012.00	9/16/19	2.139
Company	3/18	\$6,330,349.00	9/15/22	2.629
Company	3/24	\$9,265,000.00	4/24/17	1.786

**\$400mm**  
**for F, in**  
**a month?**

Who's VPG? Nice rate on 3/18

# Energy / Advanced Technology Vehicles Manufacturing Loan Application



## PR Newswire

United Business Media

AUBURN HILLS, Mich., Feb. 16, 2012 /PRNewswire via COMTEX/ -- Chrysler Group LLC has decided to withdraw its application for an Advanced Technology Vehicles Manufacturing loan from the Department of Energy. The Company remains confident in its strategy to bring competitive, fuel-efficient vehicles and technologies to market on schedule. This decision will not impact Chrysler's ability to achieve its previously announced business plan targets. Since it was formed in June 2009, Chrysler Group LLC has announced investments of more than \$4.5 billion; added more than 9,400 jobs; repaid U.S. Treasury and Canadian government loans in full, with interest, six years early; launched 16 new or significantly refreshed vehicles in our first 19 months; launched production of the all-new C-segment Dodge Dart, which is being built in the U.S. using a Fiat-based architecture and fuel-efficient technology; and in 2011, Chrysler Group U.S. sales increased 26 percent, the largest percentage sales gain of any full-line manufacturer.

### Forward-Looking Statements

This document contains forward-looking statements that reflect management's current views with respect to future events. The words "anticipate," "assume," "believe," "estimate," "expect," "intend," "may," "plan," "project," "should" and similar expressions identify forward-looking statements. Such statements are subject to risks and uncertainties, including, but not limited to: the effective implementation of the Chrysler Group LLC 2010 - 2014 Business Plan outlined on November 4, 2009, including successful vehicle launches; industry SAAR levels; continued economic weakness, especially in North America, including continued high unemployment levels and limited availability of affordably priced financing for our dealers and consumers; introduction of competing products and competitive pressures which may limit our ability to reduce sales incentives; supply disruptions resulting from natural disasters and other events impacting our supply chain; and our ability to realize benefits from our industrial alliance with Fiat. If any of these or other risks and uncertainties occur, or if the assumptions underlying any of these statements prove incorrect, then actual results may be materially different from those expressed or implied by such statements. We do not intend or assume any obligation to update any forward-looking statement, which speaks only as of the date on which it is made. Further details of potential risks that may affect Chrysler Group are described in Chrysler Group's Form 10, as amended, and its subsequent periodic reports filed with the SEC.

ETT AND RYAN TRACY

up LLC on Thursday withdrew its application for a \$3.5 billion loan from the U.S. Department of Energy to be used to fund research and development of plug-in hybrid electric vehicles.

"The proposed terms were very restrictive and compliance would have been very difficult to achieve," a Chrysler spokeswoman said on Thursday. "We are looking for operational flexibility," a Chrysler spokeswoman said on Thursday. "We are not sure that impact Chrysler's ability to achieve its previously announced goals for 2010. We are not sure that aid."

The request to drop the loan request comes as Auburn Hills, Mich.-based Chrysler is facing a financial footing and the Obama administration faces criticism from investors and analysts over the aid by ...

# Chrysler Pulls Out Of Bid For \$3.5 Billion Department Of Energy Loan

The Huffington Post | By Sharon Silke Carty | Posted: 2/16/12 | Updated: 2/16/12

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Chrysler has decided to pull out of its bid for a \$3.5 billion loan from the Department of Energy, one which would have helped the automaker reconfigure its plants to help make more fuel-efficient vehicles, because the restrictions on the loan were too stringent.

In a statement from the automaker on Thursday, Chrysler said it "remains confident in its strategy to bring competitive, fuel-efficient vehicles and technologies to market on schedule."

The Advanced Technology Vehicles Manufacturing Loan Program set aside \$25 billion to help automakers revamp assembly plants and invest in fuel-efficient technologies. General Motors also [backed](#) out of its bid for \$14.4 billion of this type of loan in January 2011.

representative said.

"We continue to work with Chrysler to come to an agreement, we are pleased that they are capable of achieving their goals without Department support," said DOE spokesman Damien LaVerre. "The company's decision to accept this loan reflects the tremendous financial turnaround that Chrysler and its workers have achieved in the past year."

Relations between Chrysler and the DOE over the loans have been ongoing for years. The loan program was established in 2009 to help the automakers, then on the verge of collapse, find ways to keep developing new technologies. In a memo that was leaked last month, auto show in January, Chrysler CEO Sergio Marchionne said the company had been debating for months whether to accept the loans. The government was asking for more collateral to back up the loan and placing too many requirements on the company, he said. The automaker had originally asked for \$7 billion, but cut that number in half to \$3.5 billion.

"I'm asking yourself, is it worth it?" Marchionne said.

Chrysler received a \$5.9 billion loan from DOE through the same program, after asking for \$11 billion. Chrysler had asked for the same terms as in the Ford deal but was struggling to convince the DOE, Marchionne said.

The dispute was happening largely because Chrysler is doing better financially. The company was able to raise more money from investors, and creditors were asking for a bigger piece of the automaker as collateral.

"We want to give Chrysler the ability to walk away, he said.

"I think the same Chrysler that would have taken a buck off the ground three years ago," Marchionne said with a shrug.

Chrysler has only issued five loans under this program: the one to Ford, one to Nissan for \$1.4 billion to help it develop an electric car in Tennessee, another to electric carmaker Fisker Automotive for \$529 million and one to electric carmaker Tesla for \$450 million. Still another for \$50 million went to the Vehicle Production Group LLC, which will make a car that is powered by natural gas.



and received \$1.5 billion and Nissan received \$1.4 billion loans from the program in 2009.

General Motors, in contrast, withdrew its \$14 billion application in January 2011. Russian steelmaker Severstal's \$730 million loan, which received conditional approval last year, was rejected last month.

"The company remains confident in its strategy to bring competitive, fuel-efficient vehicles and technologies to market on schedule," Chrysler said in a statement today. "This decision will not impact Chrysler's ability to achieve its previously announced business plan targets."

Damien LaVera, spokesman for the Department of Energy, said political pressure from Republicans that have been critical of its loan programs had no effect on discussions with Chrysler.

"While we were continuing to work with Chrysler to come to an agreement, we are pleased that they are capable of achieving their business goals without department support," LaVera said in a statement.

As recently as last April, Chrysler and Fiat CEO Sergio Marchionne said the loan "needs to get done to make us competitive."

But in January, at the North American International [Auto Show](#), Marchionne began to express increased frustration about the lengthy process.



By [Domenick Yoney](#)

Posted Feb 16th 2012 6:16PM

If you have a hate on for automakers that take government money then it may be time to upwardly revise your feelings towards [Chrysler](#). The pentastar brand had originally sought up to \$7 billion from the Advanced Technology Vehicles Manufacturing (ATVM) loan program, though since its original request in 2007, it had reduced that amount downward to a more reasonable \$3.5 billion. Now, it has withdrawn its application completely.

Apparently, the terms sought by the DOE were too restrictive for Chrysler's needs – something PHEV-maker [Fisker](#) is all too familiar with. While we don't think the decision will impact the launch of the company's only announced battery powered vehicle, the [Fiat 500 EV](#), big kahuna Sergio Marchionne is clearly unimpressed with the whole process. Says the Chrysler-Fiat CEO, comparing its position to its Detroit-based competitors, "One blocked DoE funding and the other one was using equity capital, which is probably even a better substitute than DoE funding at a lower rate. So I'm the only guy who is sitting over here that pays back everything with interest and I am sitting over there and I don't want to be favored, I just don't want to be mistreated." U.S. Representative John Dingell (D-MI) issued a statement that he's disappointed in the situation, saying he, "regret[s] that DoE and Chrysler were not able to come to an agreement that clearly would have benefited American workers and manufacturers." Read the whole thing [after the jump](#).

News Source: [Automotive News](#)

Category: [EV/Plug-in, Hybrid, Chrysler, Legislation and Policy, USA](#)

Tags: [Advanced Technology Vehicles Manufacturing, atvm, avtm, chrysler, government assistance, government bailout, government loan, Sergio Marchionne](#)

(Reuters) - Chrysler on Thursday withdrew an application for a U.S. government loan worth more than \$3 billion to help it make cars and trucks that are more fuel efficient.

The automaker said in a statement it was confident in its ability to adopt new technologies and make competitive products without new government assistance.

"The decision will not impact Chrysler's ability to achieve its previously announced business plan targets," the company said.

Chrysler was bailed out by the government in 2009 and is now a unit of Italy's Fiat SpA. It did not comment on the status of its application for an Energy Department loan to upgrade U.S. plants with technology needed to overhaul its truck-heavy lineup.

The loan was pending for some time with the company and the government engaged in tough negotiations over financing terms and other aspects. The agency said it still was considering the Chrysler application when the company pulled out.

"While we were continuing to work with Chrysler to come to an agreement, we are pleased that they are capable of achieving their business goals without department support," Energy Department spokesman Damien LaVera said.

Not providing substantial assistance to Chrysler will likely be a political plus for the Obama administration, whose overall Energy Department loan practices have come under scrutiny by congressional Republicans.

Two deals considered under the department's \$25 billion advanced technology auto financing program have been in the spotlight recently.

The first was conditional approval of a \$730 million loan for the North American subsidiary of Russian steel giant Severstal to overhaul a Michigan factory. After lawmakers sought information about the deal, the Energy Department determined Severstal NA could finance the project on its own and rejected the bid in January.

The second case involves electric car startup Fisker Automotive, which has suspended

# Chu Backtracks on High Gas Prices

By Amy Harder

Last March 13, 2012 | 12:36 p.m.

March 13, 2012 | 12:07 p.m.

Energy Secretary Steven Chu on Tuesday retracted his now-infamous quote from 2008: "Somehow we have to figure out how to boost the price of gasoline to the levels in Europe."

"I no longer share that view," Chu said in response to questioning from Sen. [Mike Lee](#), R-Utah, at a [Senate Energy and Natural Resources Committee](#) hearing on another topic related to DOE's [oil price-guarantee program](#).

Chu's 2008 quote, initially included in a [Wall Street Journal](#) article, has formed the foundation for daily Republican attacks on President Obama over high gas prices.

Chu seemed to equivocate, pause, and stumble over his words when responding to Lee's question about high gas prices. Other comments Chu made at another hearing late last month put him in hot water on gas prices. [Politico](#) reported on Feb. 28 that Chu told a House committee that he was not working to lower gas prices but to wean the United States off oil. That story has since been corrected to clarify that Chu is working to both lower gas prices and wean the country off oil. But that was only after the story picked up by Republicans and used against the administration.

During his testimony before the Senate panel on Tuesday, after stopping and starting with a few thoughts on the economy and the department's commitment to alternatively fueled vehicles, Chu told Lee: "Of course we don't want the price of gasoline to go up. We want it to go down."

A recent [polling](#) out this week found that the president's disapproval rating is going up alongside high gas prices, which averaged \$3.80 per gallon nationwide on Tuesday.

After the hearing, Chu told reporters that he changed his view from 2008 because of the fragile economy.

"There is a real hardship that Americans are suffering at the gasoline pump," Chu said. "The recovery is fragile. Another spike in gasoline prices could put that recovery at jeopardy. So there are many, many reasons why we do not want the price of gasoline to go up."

Want to stay ahead of the curve? Sign up for [National Journal's AM & PM Must Reads](#). News and analysis to ensure you don't miss a thing.

WASHINGTON, D.C. - Below is transcript of Senate Energy and Natural Resources Committee hearing on oversight of the Department of Energy loan guarantee program, in which Sen. Rand Paul questioned Energy Secretary Steven Chu on the origin of Solyndra loans and similar preferential treatment to other energy-related companies seeking government-backed loans.

TRANSCRIPT:

SEN. RAND PAUL: Thank you for coming, Secretary Chu. Have you met George Kaiser?

ENERGY SECRETARY STEVEN CHU: I think I might have at a roundtable meeting.

PAUL: More than once?

CHU: The only one I can recall at the time was during a roundtable session.

PAUL: Are you concerned about the propriety of giving money, \$500 million to a billionaire, you know, and then sort of changing the rules some so he gets to, you know, maybe get a better deal than the taxpayers do?

CHU: I'm convinced nothing I've seen in the loan program or anything in the White House had -- that any connection that George Kaiser had with raising of money had anything to do with the selection of the loan. As you well know, Solyndra was at the head of the line picked by the previous Department of Energy -- under a previous administration and it was the one that the career people advanced forward as the one that had the most work done on that loan that satisfied the conditions of the intent of the loan, you know...

PAUL: That's sort of troubling though that they were the best case scenario and met all the criteria best and then they went bankrupt. But also I think what's troubling to most of us is that we're giving \$500 million loans to a guy who's a billionaire. Why in the world would we do that?

CHU: Well, there were other investors in Solyndra also very wealthy people, also, but associated with the Republican party and so again, the...

PAUL: I wouldn't give it to them either.

CHU:... the -- the politics of the investors was not part of the decision whether to give a loan to Solyndra.

PAUL: Do you think there's a question of propriety though when you've got someone who works for you, who's married to somebody who works for Solyndra, who you say there is this firewall at the beginning maybe but you're not insinuating that he never wrote e-mails and never corresponded with people in favor of Solyndra.

CHU: Well for example...

PAUL: He did, correct?

CHU: He -- he was corresponding to -- after the loan was approved, corresponding to the timing...

PAUL: Do you think that's appropriate for him to be involved at any stage, not just -- to say he wasn't involved in the beginning is a little bit of an excuse for him but he should have never, ever had a word -- the word Solyndra should have never left his lips and never been in any writing and I think it was.

CHU: The Department of Energy has very rigorous standards that we enforce on any potential conflict of interest and as you mentioned it, for example, his wife was actually firewalled from having to do any business with Solyndra as well.

PAUL: Have you met Robert Kennedy, Jr.?

CHU: Probably, I'm not sure.

PAUL: Do you recall how many times?

CHU: Well, since I'm not sure...

PAUL: Are you aware -- are you aware the Kennedy family fortune that they're pretty wealthy also, probably worth hundreds of millions of dollars and we gave Robert Kennedy, Jr.'s company \$1.8 billion. Are you aware that someone works for you who used to work for the Kennedy's who people say was involved with that loan process?

CHU: I'm not aware of that.

CHU: I think that's something we need to look into as well and this suggestion will go on with the hearings in the House as well that really this revolving door from big business into the department of Energy to get large loans -- \$1.8 billion is a lot of money given once again to a large campaign contributor of the president's. It looks unseemly and I don't think that's your background but unfortunately, you're the head of this organization that's been giving these loans to very wealthy people who are donors of the president's and it looks really bad.

Do you give loans to foreign companies?

CHU: We give loans for loans meant to manufacture in the United States.

PAUL: What about Fisker-Karma, are they spending any of our money in Finland?

CHU: We gave a loan that was to a design group in Los Angeles and there's another tranche to the loan if they satisfied the covenants of the loan which would go to manufacturing in the United States. So the money we give in loans is very targeted to jobs...

PAUL: My understanding is they were struggling here and that this money was actually going to be used in Finland.

CHU: Well, as I said before the loans we give are for American jobs and we're very clear about that. So if they, you know, if it's a design group...

PAUL: No money goes to Finland then, Fisker-Karma's not allowed to use any of that money in Finland?

CHU: As I said, the -- the -- we give loans for -- for jobs in America and we're very clear about that.

PAUL: So Fisker-Karma is not using any U.S. taxpayer dollars in Finland.

CHU: Well I can get back to you on the details on that but I know the overall scope of the loan is for manufacturing in the United States and for design and it went to a design group...

PAUL: And you -- you can see our concern, the whole idea of picking winners and losers. People are saying that windmills, which have subsidized for years and years now, that even though we have paid for the windmills, we've got them up, we've got them started, if you take away the subsidies, they'll never make a profit. They just aren't profitable.

You know talk about tilting at windmills, we're just throwing money at windmills and it -- I just don't see the purpose and it really gets down fundamentally to what Senator Lee is talking about. We shouldn't be in this business at all and then thing is you're choosing, you know, \$50 light bulbs. Nobody understands that in America and there's a -- there's a real problem here and I don't think you're going to wind the perception war on this and my counseling and advice to you would be let's get out of this business, let's not be involved with stuff like this.

The -- also the thing is by your involvement in it, it really looks unseemly and I -- I don't question your character. You're known for being an upright person from academia, I mean but the thing is, is you're overseeing something that really doesn't pass the smell test.

Thank you.

# Its Chewed Out: You're Telling My Constituents They 'Need a N Leaf?'

Committee on Oversight and Government Reform congressman became frustrated with the secretary's testimony on what initiatives would lead to lower gas prices at the pump.

AN:

First, you've listed a long list of things that this administration has done. I have not yet heard that there are trying to increase the diversity of refining capacity or limit the regulations in the diversity of blends that are required.

Nothing from you today that indicates a policy this administration has put in place that will meaningful impact the price at the pump.

This administration has put in place have actually increased the cost of fuel at the pumps. They have increased the cost of commodities, with 10 percent unemployment, Western North Carolina, that you need to buy a Nissan Leaf? That in order to own a car, you're going to have to have an employer who is wonderful enough to provide you a place to plug in your car, so you can get home.

My constituents have at the cost of the pumps is very real, and if the President doesn't get this and if the Secretary of energy does not solve the real problem here. We've doubled the budget of the department of energy in 2009. And yet we are paying twice as much at the pump.

And, but haven't seen a reduction at the pumps."

By Steven Chu testified on Capitol Hill Tuesday regarding the department's stimulus loan programs and what the administration

# They Might Have Met Obama Bundler George

The committee held a full committee hearing today on Energy Department

Chu testified about his association with **George Kaiser**, billionaire and a loan, which squandered \$535 million of stimulus money in a little over

had met Mr. Kaiser to which Chu replied that he might have met him at

Kaiser got a "better deal" on the loan deal but Chu dismissed the notion of "efficient administration"



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Posted on March 13, 2012

## Chu Walks Back 2008 Remark Advocating Higher Gas Prices



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Senator Mike Lee (R-Utah) asked U.S. Energy Secretary Steven Chu about his 2008 remark **encouraging the U.S. to follow Europe's lead** in their extraordinarily high price of gasoline at a hearing on the Energy Department's loan guarantee program.

"Let me first respond to your first statement, Senator," Chu said. "Since I walked in the door as Secretary of Energy, I have been doing everything in my powers to do what we can to reduce -- as we see these gas prices spike -- to reduce these prices. And the administration, the president, and I personally, yes we do acknowledge and feel the pain of not only American consumers, but American businesses when they see these prices increase."

"Are you saying that you no longer share the view that we need to figure out how to boost gasoline prices in America?" Lee asked.

**Beltway Confidential**



## Chu won't tell House which loans are at risk

March 8, 2012  
11:25am  
0 Comments

[By David Colville, Commentary Staff Writer](#)

[Follow on Twitter](#)

President Obama's Energy Secretary, Steven Chu, would not tell House members today how many companies that have received loan guarantees might go bankrupt, nor would he promise to provide the list of companies at risk to Congress.

"I don't, again, recall the exact number," Chu said in the course of repeated questioning from House Subcommittee on Energy and Power lawmakers who wondered how many companies might follow Solyndra into bankruptcy. "The American taxpayer has every right to expect that there is a reasonable chance of repayment for every loan that we give out," Chu did allow.

Chu also refused to promise that he would have his staff give the committee a list of the companies that have received DOE loan guarantees. "We will do what we can," Chu told Rep. Michael Burgess, R-Texas. "We don't want to violate company confidentialities; the dynamics of what happens in these companies changes pretty rapidly."



AP photo

Burgess suggested that, at some point -- given the taxpayer money already lost through the loan program -- the



By MATTHEW LAROTONDA

March 20, 2012

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Energy Secretary Steven Chu defended his agency today against allegations the Obama administration cut corners to get funding approved for a number of alternative energy projects, including \$1.6 billion in loans for two massive solar installations.

As Chu testified before the House Oversight and Reform Committee, Republicans claimed their investigators found evidence the administration had ignored objections from within the department to approve risky ventures, and suggested companies with political ties to the White House had benefitted.

Rep. Jim Jordan, R-Ohio, told Chu he believed many loan recipients had credit ratings that would classify them as "junk" investments. Alleging a culture of "cronyism," at the agency, Jordan claimed 23 of 27 businesses approved for federal loans had connections to campaign donors or administration officials, including former economic adviser Larry Summers.

Interrupting the secretary at times during his testimony, Jordan told Chu, "There's no other conclusion you can reach. You helped your friends or you guys were incompetent."

Chu defended the integrity of the loan process. "We've put in place an aggressive monitoring system to ensure that the department and its grantees spend recovery act funds wisely," he said. "The department takes any case of waste, fraud or abuse very seriously."

Chu said he wasn't aware of many of the alleged connections but said department guidelines would have prevented any of the individuals from participating in discussions that would have influenced the loan process. Further, Chu says the decision would have come from



ONE HUNDRED ELEVENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**

COMMITTEE ON ENERGY AND COMMERCE  
2125 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-6115

Majority (202) 225-2927

Minority (202) 225-3641

October 4, 2010

The Honorable Steven Chu  
Secretary  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

Mr. Jeffrey Zients  
Acting Director  
White House Office of Management and Budget  
Eisenhower Executive Office Building  
1650 Pennsylvania Avenue, NW  
Washington, DC 20503

Dear Secretary Chu and Acting Director Zients:

I am writing to seek your assistance in ensuring that the Department of Energy's (DOE) Loan Guarantee Program reaches its full potential. It is critical that loan guarantee applications are reviewed efficiently and expeditiously by DOE and the Office of Management and Budget (OMB).

The Loan Guarantee Program was initially authorized under the Energy Policy Act of 2005. However, under the prior Administration, the program was severely understaffed and failed to issue any loan guarantees or conditional commitments.

In the Recovery Act, Congress established the temporary section 1705 program to spur investment in renewable energy. Since that time, the Obama Administration has made great strides in standing up a Loan Guarantee Program that is beginning to produce significant results. In the last year and a half, DOE has issued conditional commitments or finalized loan guarantees totaling nearly \$13 billion for 14 projects. These projects span 12 states, support a broad array of clean energy technologies, and will create over 13,000 construction jobs and more than 4,000 long-term operating jobs. By comparison, the highest total for U.S. private sector clean energy project finance in a single year was \$19 billion.

DOE has expressed confidence in its ability to move from issuing two conditional commitments per month to as many as four or five conditional commitments per month this

The Honorable Steven Chu  
Mr. Jeffrey Zients  
October 4, 2010  
Page 2

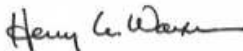
autumn. If this vital goal is to be attained, OMB must do a better job of reviewing loan guarantee applications. OMB has an important role to play in protecting taxpayers by ensuring that the credit subsidy cost for each loan guarantee is properly calculated. But the Committee has received reports of unnecessarily slow and duplicative reviews of DOE-negotiated terms by OMB. There is no question that you must continue to take your fiduciary responsibility to taxpayers seriously. But I encourage you to refine your review and coordination process so that applications are evaluated in an expeditious manner.

In addition, I request that OMB provide the following information by October 18, 2010:

1. Please provide a detailed description of OMB's role in and process for reviewing loan guarantee applications and term sheets. What is the statutory basis for each such OMB activity?
2. How often and in what respects does OMB's review process duplicate work already done by DOE? How can redundant information requests and analysis be reduced?
3. How often and to what extent have term sheets negotiated by DOE been modified at the direction of OMB?
4. For each conditional commitment issued by the Loan Guarantee Program, please provide the number of days OMB spent reviewing and approving the term sheet. For each finalized loan guarantee issued by the Loan Guarantee Program, please provide the number of days OMB spent reviewing and approving the credit subsidy cost.

Thank you in advance for your assistance. If you have any questions regarding this request, your staff may contact Jeff Baran of the Committee staff at 202-225-4407.

Sincerely,



Henry A. Waxman  
Chairman

cc: The Honorable Joe Barton  
Ranking Member



2012 Coda Sedans on assembly line, Benicia, California, March 2012

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#### ALSO SEE



2012 Fisker Karma Vs. 2012 Tesla Model S: Video...



Tesla Model S Electric Sport Sedan: Video From...



2012 Fisker Karma Electric Car First

We breathed a sigh of relief when Coda announced it had [started production of its electric Sedan](#) earlier this month.

Then, we positively jumped for joy when little over a week later, the first customers [started taking delivery](#) of their new 2012 Coda [Sedans](#). It had certainly been a long time coming.

However, good news rarely lasts, and now the [Columbus Dispatch](#) reports (via [Green Car Congress](#)) that Coda Automotive has dropped its plans to build a lithium-ion battery fabrication plant in Columbus, Ohio.

The abandoned plans are due to the delay Coda has experienced in receiving definitive responses from the U.S. Department of Energy on its application for a \$500 million low-interest [loan guarantee](#) under the advanced technology vehicle manufacturing program.

That program previously granted loan guarantees to [Ford](#), [Nissan](#), and [Tesla](#) in June 2009, and then [Fisker](#) later that year, but has issued virtually no loan commitments since then.

The DoE has come under criticism for its losses on solar panel builder Solyndra, which had previously received half a billion dollars under a different DoE loan program.

Solyndra's bankruptcy has subsequently made it very difficult for any applicants to get commitments from the DoE on their applications, some of which were submitted two years ago or more.

Coda Automotive says its business plan doesn't rely on the Ohio plant. In the short term at least, the company is concentrating on delivering more 2012 Sedan electric [cars](#) to its first wave of buyers.

The change in plans means Ohio will lose out on

# DoE Loan Application

Posted: April 25, 2012 in Electric car

Tags: 2012 Coda EV Sedan, Coda Automotive, DoE ATVM loans, lithium ion battery



Coda shelves plans for Ohio battery plant because of DOE inaction



Danny King

Posted Mar 29th 2012 4:08PM

In this case, the federal government sneezes, and central Ohio catches a cold.

What's the take from the Columbus Dispatch on the decision by electric-vehicle maker Coda Automotive to shelve plans to build a Columbus, OH, battery factory.

Coda said about two years ago [that it would build the factory](#), which would've supported more than 1,000 jobs in the area. It said at the time that "Construction of the facility is contingent upon finalizing an incentive package with the state of Ohio and the approval of an application for a Department of Energy (DOE) Advanced Technology Vehicles Manufacturing Loan (ATVM)." Guess what didn't happen?

Los Angeles-based Coda has been hamstrung on the proposed investment because the DOE has not yet responded to the loan request, which was filed around two years ago. Parts for the Coda Sedan are made in China, while the EV is assembled in Northern California.

Earlier this month, Coda [sold its first models](#) to California buyers. The company, which opened its Los Angeles headquarters late last year, [sold its first Sedan ten days ago](#) and was recently given [an official range of 88 miles](#) from the EPA.

News Source: [Columbus Dispatch](#) via [Green Car Congress](#)

Category: [EV/Plug-in](#), [Manufacturing/Plants](#), [Coda Automotive](#)

Keywords: [battery](#), [coda](#), [coda automotive](#), [columbus](#), [columbus ohio](#), [electric vehicle](#), [factory](#), [federal government](#)



Meet Loveland-based Abound Solar, the lucky winner of a \$400 million federal loan guarantee from the Obama administration. Earlier this month, the thin-film cadmium telluride solar module-maker announced layoffs of nearly 300 employees (70 percent of its workforce). In addition, the firm froze plans to build a new factory in Indiana. Abound says it will ride out bad market conditions and "hopefully" survive until the market recovers.

But White House hope-a-nomics is what got Abound and taxpayers into trouble in the first place.

Back in 2010, President Obama promised America in his weekly radio address that Abound would "manufacture advanced solar panels at two new plants, creating more than 2,000 construction jobs and 1,500 permanent jobs." Energy Secretary Steven Chu waves his green pom-poms, too. "Not only is this investment creating thousands of jobs, but it is also increasing our renewable energy manufacturing capacity and putting us on the path for our future prosperity."

Like the rosy projections Obama and Chu used to justify pouring half-a-billion dollars in eco-subsidies down the now-bankrupt Solyndra solar drain, Abound's financial outlook was based on mathematical make-believe. Hope plus change equals fail. Turns out Abound raked in green government funds despite big red flags from Fitch Ratings.

GOP House Oversight and Reform Committee Chairman Darrell Issa wrote: "Fitch describes Abound as lagging in technology relative to its competitors, failing to achieve stated efficiency targets, and expecting that Abound will suffer from increasing commoditization and pricing pressures. DOE's willingness to fund Abound, despite these concerns, calls into question the merits of this loan guarantee."

The financial mess was reported by ABC News, but the Obama administration has so far escaped real scrutiny of his crony venture socialism.

How were Fitch's warnings ignored? Thanks to the intrepid investigative work of Colorado's Todd Shepherd at CompleteColorado.com, Amy Oliver at the Independence Institute and Michael Sandoval at the People's Press Collective blog, the crass political science driving this latest Department of Energy loan scandal has been exposed. The loan deal appears to be textbook "pay-for-play" between Team Obama and one of Colorado's wealthiest progressive activist scions, Pat Stryker. She's the billionaire heiress whose family founded a medical device and software company. Her investment firm, Bohemian Companies, dumped nearly \$500 million into Democratic coffers between 2008 and 2012. Bohemian also invested considerably in Abound.

Colorado Democratic Rep. Betsy Markey, a backer of job-killing cap-and-trade policies and other stifling environmental regulations, pushed for the massive Abound DOE loan.

## Independent Tax Analysts Show Energy Department Gave Away Hundreds of Millions in Tax Write-Offs to Solyndra — Issa Questions Whether DOE has done the Same for Other Failing Projects

WASHINGTON— The Department of Energy (DOE) gave away its equity interest in Solyndra to allow tax benefits worth \$341 million to pass to two of Solyndra's largest investors, Argonaut and Madrone, according to recently released bankruptcy filings. DOE's actions raise the total amount of taxpayer money lost by Solyndra to as high as \$849 million. House Oversight and Government Reform Committee Chairman Darrell Issa, R-Calif., today sent a letter to Secretary of Energy Steven Chu seeking documents relating to another troubled loan recipient, Fisker Automotive.

ent of Energy (DOE) gave away its equity interest in Solyndra to \$341 million to pass to two of Solyndra's largest investors, Argonaut and Madrone, according to recently released bankruptcy filings. DOE's actions raise the total amount of taxpayer money lost by Solyndra to as high as \$849 million. House Oversight and Government Reform Committee Chairman Darrell Issa, R-Calif., today sent a letter to Secretary of Energy Steven Chu seeking documents relating to another troubled loan recipient, Fisker Automotive.

"The Committee is also concerned that DOE may have similarly failed to protect taxpayers in the case of other companies that obtained DOE loans and then restructured those agreements to attract outside capital," Issa wrote.

Issa's letter seeks documents relating to Fisker Automotive's loan to ensure that the same giveaway didn't happen when the troubled electric automaker required additional outside funding earlier this year.

Near the time of Solyndra's failure, the DOE accepted that its loan would be subordinated to a privately funded loan that would provide an additional \$75 million to the failing Solyndra. The subordination of DOE's loan increased risks to taxpayers because the investor's new loan would stand to recover in bankruptcy before the DOE. However, of far greater concern, the DOE also gave away its potential ownership interest in Solyndra in the event of bankruptcy. This waiver of DOE's ownership rights provides Solyndra's investors with nearly a billion dollars worth of tax write-offs that will likely lead to reduced tax payments up to \$341 million. Complex tax laws helped mask the extent to which the loan restructuring betrayed taxpayers on behalf of Argonaut and Madrone.

"The unusual lack of recovery to a more senior claim could only result if DOE sacrificed more than just its priority position as the senior-most lender when it restructured the loan to attract the additional \$75 million loan," Issa wrote. "In fact, it appears that DOE effectively waived any potential equity interest in Solyndra prior to bankruptcy."

According to the letter, Fisker Automotive obtained an Advanced Technology Vehicles Manufacturing (ATVM) Program loan for \$528.7 million on April 23, 2010. Fisker Automotive's delays in launching its first vehicle, the Karma, in the United States led DOE to freeze the loan and renegotiate the financial covenants with Fisker in June 2011 allowing for further private investment, similar to Solyndra. Without loan documents that DOE has withheld from the Committee, it is unclear if the Department entered into a similar

Topics: Business, Politics, Transportation



Governor Mitch Daniels at Carbon Motors in 2009

CONNERSVILLE, IN (FOX19) – A car maker that was expected to create 1500 jobs building police cars in Connersville says it has been denied an the Advanced Technology Vehicle Manufacturing loan by the Department of Energy.

"We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly-charged, election year environment. Since Solyndra became politicized last fall, the DOE has failed to make any other loans under the ATVM program, has pulled back one loan that it previously committed and, as of this month, the DOE has pushed aside the three remaining viable loans under active consideration," said William Santana Li, chairman and chief executive officer, Carbon Motors Corporation.

Solyndra was a solar company that quickly used up more than half a billion dollars in Department of Energy loans before going bankrupt, leading to massive criticism of the Obama administration for making the loans.

Carbon Motors police cars are planned to run on diesel fuel, saving vast amounts of energy compared to gasoline cars while lasting for hundreds of thousands of miles. The cars are planned to be shielded against rear impact crashes, always a worry for police officers, and are designed with places to plug in cameras, built-in push bumpers, and other equipment that local police departments have traditionally had to install themselves. The company also plans to recycle all vehicles it sells. Carbon Motors already had about 20,000 reservations for their cars.

The company says it had every indication that DOE was planning to go forward with the loans until recently. The DOE has killed or not acted on all other large motor vehicle manufacturing loans recently.

Indiana Governor Mitch Daniels was on hand in Connersville two years ago when the company, which then had a headquarters in Georgia but no plant, announced it would move to Connersville. Today Daniels issued this statement:

"We're deeply disappointed for the people of Connersville and those who tried to bring this promising business here. It would have been far better if the federal government had never gone into the banking business. Companies like Carbon that might have proceeded and succeeded with a conventional business plan were seduced into wasting irreplaceable years chasing federal subsidies that never happened. As President Reagan once said, 'When you get in bed with the federal government, you get a lot more than a good night's sleep.'"

Indianapolis TV station WRTV reports that DOE Secretary Steven Chu, who visited there this week, refused to talk about the loan for Carbon Motors.

The company says it is now looking for other sources of financing. Their release can be seen [here](#)

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## Connersville Mayor Wants Answers About Department of Energy

Loan

By RTV6

3/8/2012

The Connersville mayor is demanding answers about a \$335 million loan from the Department of Energy that's critical to bringing hundreds of jobs to the city.

Mayor Leonard Urban says high-tech police car manufacturer Carbon Motors applied for the loan to build energy-efficient vehicles in a repurposed factory. Urban says without the loan, the project is in limbo.

Urban said he is trying to schedule a face-to-face meeting with U.S. Secretary of Energy Steven Chu. He said the people of Floyd County have a right to know what's next.

Chu was in Indianapolis Monday. When he was asked about the Carbon loan, Chu stated they want to go forward on the project, but added they have a responsibility to the taxpayers and they need to make sure its within in the statute that there's a reasonable chance of repayment.

# Obama Campaign Backers and Bundle Rewarded With Green Grants and Loans

2, 2011 1:30 PM EST

Where did green-energy money go? Straight to campaign donors. Read more about Peter Schwiezer and his book *Throw Them All Out* in the new *Newsweek* Monday.

Comments (284)

When President-elect **Obama** came to Washington in late 2008, he was outspoken about the need for a **economic stimulus** to revive a struggling economy. He wanted billions of dollars spent on “shovel-ready projects” to build roads; billions more for developing alternative-energy projects; and additional billions for expanding broadband Internet access and creating a “smart grid” for energy consumption. After he was elected in as president, he proclaimed that taxpayer money would assuredly not be doled out to political cronies. “Decisions about how Recovery Act dollars are spent will be based on the merits,” he said, referring to the American Recovery and Reinvestment Act of 2009. “Let me repeat that: decisions about how recovery money will be spent will be based on the merits. They will not be made as a way of doling out money for lobbyists.”

y?

It would take an entire book to analyze every single grant and government-backed loan doled out since Barack Obama became president. But an examination of grants and guaranteed loans offered by just one stimulus program run by the Department of Energy, for alternative-energy projects, is stunning. The Energy Department's 1705 Loan Guarantee Program and the 1603 Grant Program channeled billions of dollars to a

sorts of energy companies. The grants were earmarked for alternative-fuel and green-power projects, so it would not be a surprise to learn that those industries were led by liberals. Furthermore, these were highly competitive grant and loan programs—not usually a hallmark of cronyism. Often fewer than 10 percent of applicants were deemed worthy.

Nevertheless, a large proportion of the winners were companies with Obama-campaign connections. Indeed, at least 10 members of Obama's finance committee and more than a dozen of his campaign bundlers were big winners in getting your money. At the same time, several politicians who supported Obama managed to strike gold by launching alternative-energy companies and obtaining grants. How much did they get? According to the Department of Energy's own numbers ... a lot. In the 1705 government-backed-loan program, for example, \$16.4 billion of the \$20.5 billion in loans granted as of Sept. 15 went to companies either run by or primarily owned by Obama financial backers—individuals who were bundlers, members of Obama's National Finance Committee, or large donors to the Democratic Party. The grant and guaranteed-loan recipients were early backers of Obama before he ran for president, people who continued to give to his campaigns and exclusively to the Democratic Party in the years leading up to 2008. Their political largesse is probably the best investment they ever made in alternative energy. It brought them returns many times over.



Illustration by Oliver Munday for Newsweek

These government grants and loan guarantees not only provided access to taxpayer capital. They also served as a seal of approval from the federal government. Taxpayer money creates what investors call a "halo effect," in which a young, unprofitable company is suddenly seen to have a glowing future. The plan is simple. Invest some money, secure taxpayer grants and loans, go public, and then cash out. In just one small example, a company called Amyris Biotechnologies received a \$24 million DOE grant to build a pilot plant to use altered yeast to turn sugar into hydrocarbons. The investors included several Obama bundlers and fundraisers. With federal money in hand, Amyris went public with an IPO the following year, raising \$85 million. Kleiner Perkins, a firm that boasts Obama financier John Doerr and former vice president Al Gore as partners, found its \$16 million investment was now worth \$69 million. It's not clear how the other investors did. Amyris continues to lose money. Meanwhile, the \$24 million grant created 40 jobs, according to the government website [recovery.gov](http://recovery.gov).

ment of Energy's Loan Program Office, which would be directed by a dedicated scientist or engineer with special knowledge. Instead, the department's loan program is run by a committee of people for raising money during the Obama campaign. The committee is made up of people who are good at raising money and grants. Steve Spinner, who served on the committee and was a bundler himself, was the chair of the committee. The committee's work included fundraising, recruiting more bundlers, and identifying potential donors. After the 2008 campaign, the committee was reorganized into the "Chief strategic operations officer" for the loan program. The committee is made up of wealthy Silicon Valley campaign bundlers, which is made up of Obama-supporting campaign bundlers.

Carbon Motors even went so far as to poke at fresh wounds over the failed solar startup Solyndra, which squandered \$535 million in government loans. "Since Solyndra became politicized last fall, the DOE has failed to make any other loans under the ATVM program, has pulled back one loan that it previously committed and, as of this month, the DOE has pushed aside the three remaining viable loans under active consideration," Li continued,



But Li wasn't done yet. He went on to blast the Obama Administration for bowing to pressure to stop approving loans for advanced vehicle technologies. "Carbon Motors simply appears to be the last victim of this political gamesmanship. In failing to deploy the tax dollars that Congress allocated for the creation of advanced technology manufacturing jobs in the U.S., the DOE ATVM program represents a glaring failure of the Obama Administration to create jobs that are clearly within its power to create."

Carbon Motor claims that it has over 20,100 reservations for its E7 from 584 agencies in all 50 states. The rear-wheel drive, 4,000-lb E7 is powered by a 250hp, 400 lb-ft turbodiesel engine and has projected EPA ratings of 28mpg/30mpg (city/highway). The vehicle is designed to protect its occupants from a 75mph rear-impact crash and has a 250,000-mile durability specification.





The Committee wants a look at all emails exchanged between the White House, DOE and Treasury regarding tax implications of the Fisker loans

The House Oversight and Government Reform Committee is looking into U.S. Department of Energy's (DOE) original terms of [its loan to Fisker Automotive](#), questioning whether DOE will step in to help the electric vehicle (EV) automaker if it goes bankrupt and investors are allowed to retrieve their money.

"[The government] allowed Fisker to find additional private investors after failing to adhere to financial covenants," said House Oversight chairman Darrell Issa (R-Calif.) in a letter to DOE Secretary Steven Chu. "However, the details of how these private investments affected underlying terms to the original DOE loan are unclear."

Fisker Automotive, a California-based EV maker, received \$529 million in DOE loans in April 2010. The loans were part of a program to progress development of high-tech vehicles, where Fisker received \$169 million for Karma plug-in engineering and \$359 million for Nina production. The loans were also meant to revamp a closed General Motors plant in Wilmington, Delaware for Fisker EV production.

However, Fisker fell a little behind on its production schedule, and in May 2011, [DOE froze the loans due to "missed milestones."](#) Fisker had only drawn \$193 million of it at that point.

Now, the House Oversight and Government Reform Committee wants to know if DOE will help Fisker out if it goes allows investors to retrieve funds in the event of bankruptcy. The Committee wants a look at all emails exchanged between the White House, DOE and Treasury regarding tax implications of the Fisker loans.

#### DailyTech - House Committee Looks into Terms of DOE's Fisker Automotive Loans

"From day one, decisions made on loan applications and projects supported by loan guarantees were made on the merits after careful review by experts in the loan program," said Damien LaVera, DOE spokesman. "Our consistent goal has been to manage these critical investments in innovative clean energy technologies in a way that manages the risk to the taxpayers."

DOE added that there has not been any restructuring of the Fisker loan with the department, and all borrowers in their portfolio can raise private equity. Fisker has raised \$1 billion in private equity.

Fisker has had other problems in the recent past, such as [Karma battery concerns](#) (the company has had three recalls since December) and the two-year delay on its Atlantic vehicle production.

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Thank you for the opportunity to discuss Daimler's manufacturing operations in the US and our product strategy. As you begin to write regulations for the Direct Loan Program, as authorized by Congress in H.R. 6, the Energy Independence and Security Act of 2007, we appreciate your willingness to consider the viewpoints of all automakers that manufacture in the United States.

### **Commitment to the US**

Daimler currently operates 11 facilities in the U.S. and employs approximately 24,000 Americans. Daimler's brands include Mercedes-Benz, Orion and Setra Buses, and Sprinter vans. Daimler Trucks North America (DTNA) brands include Freightliner, Western Star and Thomas Built Buses, making it North America's largest truck and bus maker. DTNA also owns Detroit Diesel which manufactures engines for our trucks in Michigan. Daimler also manufactures the most fuel-efficient gasoline-engine vehicle in the United States, the smart car.

In addition to our vehicles, Daimler operates a captive auto loan financing company, Daimler Financial Services based in Michigan.

### **Daimler Footprint in the United States**

Daimler has locations across the United States in 16 states. For example:

Alabama: Our 4,000 employees in Vance, Alabama manufacture our lineup of sport utility vehicles, the ML, R, and GL classes. Production began here in 1997. This summer Daimler became the first auto manufacturer to be certified by the IRS for consumer tax credits for new clean diesel vehicles which are compliant in all 50 states. The plant manufactures the ML 320 BlueTec which qualifies for a \$900 tax credit, the R 320 BlueTec that qualifies for a \$1,550 tax credit, and the GL 320 BlueTec that qualifies for a \$1,800 tax credit. The Vance facility will also start producing hybrid versions of these vehicles next year.

North Carolina: Daimler employees approximately 6,000 people in North Carolina. Daimler Buses is headquartered in Greensboro. Daimler Trucks also operates four Freightliner plants located in Mount Holly, Gastonia, Cleveland, and High Point. Production began in Mount Holly in 1979 and Gastonia in 1978. In 1989 Freightliner established a manufacturing facility in Cleveland. Thomas Built Buses goes all the way back to 1916 when it was established in High Point.

South Carolina: Daimler employs nearly 1,000 people in South Carolina. Since 1995, our Gaffney plant has been home to Freightliner Custom Chassis where we make custom chassis for motor homes, delivery vans, shuttle buses, and school buses. For six years the Ladson facility has assembled Sprinter Vans.

Michigan: Detroit Diesel was established in 1938. Over 2,000 employees work at our plant in Detroit, where we design, manufacture, sell and services engines for medium and heavy-duty diesel and alternative fuel engines for commercial vehicles. Michigan also serves as headquarters for Daimler Financial Services and smartUSA.

New York: Daimler's Orion brand is located in Oriskany and employs over 500 New Yorkers. Products include the world-leading hybrid-electric clean diesel buses which are being used in several major US cities.

### **Increasing Our Production of Advanced Vehicle Technologies in the US**

Clean diesel technology is a central feature of our strategy to reduce greenhouse gas emissions and to meet new, tougher corporate fuel economy standards (CAFE). Diesel engines achieve between 20 and 40 percent better fuel economy than gasoline. With new, advanced clean diesel technologies harmful emissions are reduced by 90 percent over previous technology, and comply with the emissions requirement of all 50 states.

BlueTec Diesel Technology: Daimler's BlueTec Diesel technology is an emission control system which traps and reduces particulate emissions and nitrogen oxides. This summer Daimler was the first automobile manufacturer to be certified by the IRS to receive alternative motor vehicle tax credits for its clean diesel vehicles. This certification means that, three of Mercedes' sport utility vehicles, the ML 320, the R 320, and the GL 320, meet all 50 states' strict emissions standards and qualify for consumer tax credits. These three vehicles are made in Vance, Alabama.

Hybrid Technology: Hybrid technology will also play a key role in Daimler's strategy for sustainable mobility. Today we are the worldwide market leader in the hybrid bus segment. Orion Buses manufactured in Oriskany, New York, supplies hybrid buses to cities throughout North America. Compared to standard diesel propulsion, these hybrid buses deliver up to 45 percent better fuel economy while greatly reducing emissions: 90 percent less particulate matter, 40 percent less NOx and 30 percent fewer greenhouse gases. Hybrid technology is being used in the 2009 S 400 BlueHYBRID and the Mercedes ML 450 BlueHYBRID. Both models are expected to be in showrooms in the fall of 2009.

Daimler is using hybrid technology in its heavy-duty trucks. The new Freightliner M2 Hybrid uses the electric drive module as a supplement to the diesel engine, but also for the emission-free operation of its elevating platform.

### **Conclusion**

Daimler is a major manufacturer of light, medium and heavy duty vehicles in the US. Our 24,000 employees and eleven US facilities are a testament to commitment Daimler has put into the US. We have manufactured over one million Mercedes cars and SUVs built here and we continue to produce fuel efficient, advanced technology vehicles. Our truck business, Daimler Trucks North America, is the continent's largest truck and bus maker.

Thank you for the opportunity to share with you what Daimler is doing in America. We believe our products are consistent with the goals of the Direct Loan Program. As you develop the regulations for the important Direct Loan Program, we hope you will be flexible in its design,

non-discriminatory toward all domestic manufacturers, and mindful of our Daimler's strength, innovation, and long-standing commitment to the US.

**Small Business Set-Aside**

N/A

**Award Number**

DE-GC0000013

**Award Date**

2/12/2010

**Awardee**DEBEVOISE & PLIMPTON LLP919 THIRD AVENUE  
NEW YORK NY 10022-3916 USA**Award Amount**

\$33289860

**Line Number**

1

**Description**

Contract number DE-GC0000013 was awarded to Debevoise & Plimpton LLP for legal services to support the Advanced Technology Vehicles Manufacturing Loan Program. The maximum value of the contract is \$33,289,860 over five years from February 13, 2010 - February 12, 2015. This requirement was not set-aside for small businesses.

**Web Link**[FBO.gov Permalink](https://www.fbo.gov/permalink)

(<https://www.fbo.gov/spg/DOE/PAM/HQ/DE-SOL-0001299/listing.html>)

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SN02064990-W 20100214/100212235038-  
21ee308b65751c71f4407cdeeb7c4b15 (fbodaily.com)

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# DEPARTMENT OF ENERGY LOAN GUARANTEE PROGRAM

APR 13, 2012

Senate Committee Energy and Natural Resources

Secretary Steven Chu and Assistant Secretary Herbert Allison testified on the Department of Energy loan guarantee program and its recent independent review.

1 hour, 26 minutes | 345 Views

## Program Timeline



## TIMELINE

- 0:00:16  
2 min.
- Unidentified Speaker**  
ON RISKS THAT PRIVATE INVESTORS THE GREATEST SOURCES OF WE  
A CNET SCENARIO IN INDUSTRIES ADVANCING CLEAN ENERGY IN THE  
UNFORTUNATELY, OUR EFFORTS TO PRIVATE...
- 0:02:45  
3 min.
- Unidentified Speaker**  
BELT, AND THEN YOU HAVE SECTION UNFORTUNATELY IS NOT CLOSE  
NO CLEAR FRUSTRATION OF OVERDOE SCANDAL AND THE  
CONTROVERSY THE FAILURE SO QUICKLY, MAKE...
- 0:07:49  
16 min.
- Unidentified Speaker**  
THAT YOU WOULD BE RESPONSIBLE TO THE GOVERNMENT OF ENERGY CALL

NOTE: The transcript for this program was compiled from uncorrected Closed Captioning.

## RELATED PROGRAMS



## DETAILS

## PURCHASE



## PEOPLE



**Allison, Herbert M. Jr.**  
Assistant Secretary  
Department of the  
Treasury->Financial Stability



**Chu, Steven**  
Secretary  
Department of Energy



**Barrasso, John A.**  
U.S. Senator  
[R] Wyoming

## TAGS



**Energy Department  
Fiscal Year 2013  
Budget**  
Senate Committee  
Feb 16, 2012

56 minutes  
107 views

Tags: Federal Budget,  
Energy Policy



**Energy Department  
Fiscal Year 2013  
Budget**  
Senate Committee  
Feb 28, 2012

28 minutes  
107 views

Tags: Federal Budget,  
Energy Policy



**Department of Energy  
2012 Budget**  
Senate Committee  
Feb 16, 2011

2 hours, 6 minutes  
268 views

Tags: Federal Budget,  
Energy Policy



**Department of Energy  
Fiscal Year 2013  
Budget**  
News Conference  
Feb 13, 2012

49 minutes  
197 views

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**Department of Energy  
2012 Budget**  
Senate Committee  
May 18, 2011

59 minutes  
147 views

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White House Event  
Apr 21, 2010

31 minutes  
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# Economics/Emerging Business Opportunities in Energy Storage

**McKinsey & Company**

**Dickon Pinner**

**October 23, 2008**

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### Thought Leadership

#### A Better Approach to ERP



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- ✦ A Manufacturing Success Story with Cloud ERP
- ✦ Video Library for Automotive Suppliers
- ✦ Manufacturing Success in the Cloud
- ✦ A Better Bottom Line with Cloud ERP

The Advanced Technology Vehicles Manufacturing Loan Program has been a mess. In four years, the Department of Energy program has disbursed less than half the \$25 billion approved by Congress, leaving a trail of bungled opportunities.

It is more evidence of why it is wrong for government to pick winners and losers.

The program was created in December 2007 as part of the Energy Independence and Security Act, amid a push by Congress to hike U.S. fuel economy standards. At the behest of Michigan legislators, the low-interest loan program was included to help the Detroit 3 retool their aging factories to produce the next generation of advanced-technology vehicles.

But the law of unintended consequences and political pandering made a bad idea worse.

Only five companies have received loan guarantees since 2008, the year the program was funded by Congress, with the majority of the allocations -- about \$5.9 billion -- going to [Ford Motor Co.](#) [Nissan Motor Co.](#), the only other established automaker to secure a loan, received about \$1.4 billion.

The Obama administration's political bias for electric vehicles became a problem.

Two startups, [Tesla Motors](#) and [Fisker Automotive](#), didn't need to retool to meet new corporate average fuel economy standards. But after buying fallow assembly plants, they applied for and were granted loans. Tesla got a \$465 million loan agreement. Fisker got a \$529 million agreement but received only a portion of it before the government demanded to review the company's business plan. As of last week, it wasn't clear whether Fisker will even build cars here.

Worse, the strings attached to the loan process ended up repelling [General Motors](#) and [Chrysler](#), two of the three companies that legitimately might have been able to use the money to meet the new standards.

Now the DOE auto loan program and a separate DOE program intended to give nonautomotive alternative-energy projects a boost have become a political football, as often happens in an election year when tax dollars are involved. Republicans and Democrats have raised questions about some of the loans.

A DOE spokesman says the department is committed to balancing support for innovative, clean-vehicle

# U.S. federal loan guarantee improvements needed, Government Accountability Office report says

Pavey

Writer

March 13, 2012 1:20 PM

edited 2:30 PM

The U.S. Department of Energy's federal loan guarantee program – of which Plant Vogtle is the largest program beneficiary – is not following its own rules for evaluating applications and maintaining records, the Government Accountability Office said this week.

GAO officials said a lack of accessible, consolidated data makes it difficult to manage the program and provide consistent oversight on applications for funding assistance designed to stimulate commercial energy projects and the construction of nuclear reactors.

Under a 2005 Congressional edict, the department is authorized to award up to \$34 billion in loan guarantees. Georgia Power Co. and nuclear partners Oglethorpe Power and MEAG are conditionally approved to receive up to \$8.326 billion for the Vogtle expansion.

The program includes \$3.460 billion for Georgia Power, \$3.057 billion for Oglethorpe and \$1.809 billion for MEAG.

GAO officials reported difficulties getting documents needed for their review, noting that program officials "did not have consolidated data readily available and had to assemble these data over several months from various sources."

On a positive note, the GAO also interviewed private lenders who finance large-scale energy projects. Those lenders concluded the Energy Department program's review process "was generally as stringent as or more stringent than their own."

However, the government's reviews sometimes differed from its established process in that some steps were not properly documented or omitted entirely. Such deficiencies make it difficult to treat all applications consistently and could affect the ability to identify and mitigate project risks, the 58-page report said.

GAO documentation could also make it harder for the Department of Energy to defend itself should the fairness of its loan guarantee decisions be called into question, auditors said.

GAO recommended that Energy Secretary Steven Chu establish a timetable for, and fully implement, a consolidated system to provide complete information on all loan guarantee projects, and that the department regularly update the program's policies and procedures.

The \$14 billion project to add two reactors to Plant Vogtle was given final approval Feb. 9, when the Nuclear Regulatory Commission issued a combined operating license for the project.

The loan guarantee has not yet been finalized, as the financial terms of the agreement remain under negotiation. Jeff Wilson, a Southern Company spokesman.

The agreement, he said, is expected to become final in the second quarter of 2012. He would not elaborate on the specifics of those negotiations.

# Business Operations

Submitted by Paul Chesser (@onpaulchesser) on Mon, 03/05/2012 - 11:03

In administrating stimulus-fed loan and grants programs, the Department of Energy (<http://nlpc.org/category/keywords/department-energy>) has been accused of incompetence, carelessness, recklessness, and ironyism. Now it can add inconsistency to those distinguishing characteristics.



Last week Bright Automotive, an electric vehicle (<http://nlpc.org/category/keywords/electric-vehicles>) start-up company that General Motors (<http://nlpc.org/category/keywords/general-motors>) helped two years ago with an investment (<http://wheels.blogs.nytimes.com/2010/08/04/g-m-invests-in-plug-in-hybrid-startup/>) of at least \$5 million from its venture capital arm, gave up hope on winning a \$450 million loan from DOE's Advanced Technology Vehicle Manufacturing program. As the company announced the withdrawal of its loan application and that it would end operations, CEO Reuben Munger and COO Mike Donoughe sent (and released to the media) a letter (<http://download.gannett.edgessite.net/detnews/2012/pdf/0228brightauto.pdf>) to DOE Secretary Steven Chu (<http://nlpc.org/category/people/steven-chu>) that sharply criticized the loan programs processes and outlined their frustrations.

"Bright has not been explicitly rejected by the DOE," the Bright executives wrote, "rather, we have been forced to say 'uncle....'"

"Last week we received the fourth 'near final' Conditional Commitment letter since September 2010. Each new letter arrived with more onerous terms than the last. The first three were workable for us, but the last was so outlandish that most rational and objective persons would likely conclude that your team was negotiating in bad faith. We hope that as their secretary, this was not at your urging."

The shutdown is the latest in what is becoming a long line of green energy government "investment" failures in Indiana (<http://nlpc.org/category/keywords/indiana>). In January EV battery maker Ener1 (<http://nlpc.org/category/keywords/ener1>), which had received \$118.5 million in grants from DOE and \$7.15 million in incentives from the Hoosier State (<http://content.usatoday.com/communities/theoval/post/2012/01/obama-critic-backed-bankrupt-clean-energy-firm/1>),

DOE rejects \$310M loan for Carbon Motors to build advanced police cars



By [Autoblog Staff](#)

Posted Mar 8th 2012 10:57AM

**Carbon Motors**, maker of the purpose-built E7 police car, won't receive the \$310 million in U.S. Department of Energy (DOE) loans under the Advanced Technology Vehicle Manufacturing (ATVM) program that it applied for almost three years ago, and said that it's a victim of politics.

"We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly-charged, election year environment," Carbon Motors William Santana Li said in a statement. The company added that it was "actively examining its strategic and financing alternatives."

Carbon Motors says its vehicles will save government entities money because they get better fuel economy and they're purpose-built, meaning that factory vehicles don't need to be retrofitted. Carbon Motors has said its diesel-powered cars may cut law-enforcement fuel use and greenhouse-gas emissions by as much as 40 percent, and that building such cars may create as many as 10,000 jobs. The car was to feature a BMW 3.0-liter turbodiesel engine.

The company says it's received about \$200 million worth of financial commitments from private and public sources and has taken orders from more than 500 law-enforcement agencies for more than 20,000 cars.

Last December, the company [sent an open letter](#) urging the Obama Administration to push the DOE to approve the loan.

The federal loan process has vexed other automotive companies. Bright Automotive, which was to make extended-range plug-in utility vehicles, publicly pleaded with the government to process its application for a \$400 million loan in January. Last month, that company [went out of business](#).



Energy Secretary Steven Chu may want the country to [stop discussing the Solyndra scandal](#), but information continues to come to light that confirms the worst suspicions of the critics of DOE's \$535 million loan guarantee.

According to a new batch of administrative emails released this week, DOE pushed Treasury Department officials to expedite their review of the Solyndra loan so that Energy could put out a press release on schedule – just a few days before President Obama visited Solyndra's California headquarters.

Bloomberg reported on Tuesday:

*The Energy Department sent a draft press release to the Treasury on March 18, 2009, "announcing Solyndra's conditional commitment planned for issuance later that afternoon," the report said. The Treasury requested more time for review and later agreed with the Energy Department's request to expedite the review by March 20, 2009, "so that the press release could be issued on the morning of March 20, 2009," the report said.*

# By the Numbers: DOE's Electric Car Spending & Targets

By [Josie Garthwaite](#) Jul. 14, 2010, 5:00pm PDT [No Comments](#)

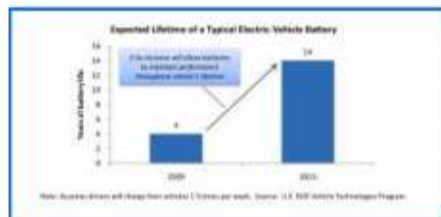
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The Obama administration has kicked off its [electric car and battery offensive](#) with a report from the Department of Energy laying out the facts and figures for its investments in advanced vehicles and batteries so far under the Recovery Act.

Job figures (“tens of thousands,” “hundreds”) are somewhat vague — given that this is a progress report on spending that’s meant to stimulate economic growth, coming from an administration that has been [touting the green jobs created through Recovery Act investments](#). But the 8-page document does provide a snapshot of where these funds are going and what kind of changes the feds are hoping they’ll bring about. You can read the full report [here](#), and check out our digit-by-digit highlights below.

- 1: Number of times that DOE mentions Ford and LG Chem in its report.
- 2: The number of factories producing advanced vehicle batteries in the U.S. in 2009. (Also the number of times that DOE mentions battery maker A123 Systems, Tesla Motors, Fisker Automotive and Nissan in its report.)
- 4: The number of new battery plants that the DOE expects to be operational by year’s end.
- 5: Number of times that DOE mentions General Motors in its report.
- 9: The number of new battery plants slated to open in the U.S. in total with Recovery Act funds.



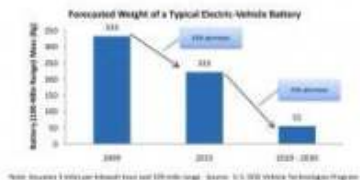
**14:** Number of years that the DOE expects electric vehicle batteries to last by 2015 (if recharged 1.5 times per week), compared to an estimated 4-year lifespan for batteries produced in 2009.

**20:** Percentage of the world's production capacity for advanced vehicle batteries that will reside in the U.S. by 2012 as a result of Recovery Act investments. The DOE expects this to grow to 40 percent by 2015.

**21:** The number of plants helped along by stimulus grants that are expected to make components for batteries or electric vehicles.

**26:** Number of battery and component plants that have started construction, either breaking ground on new facilities or installing new equipment at an existing factory.

**30:** Number of factories that the DOE expects to come online producing advanced vehicle batteries in the U.S. by 2012.

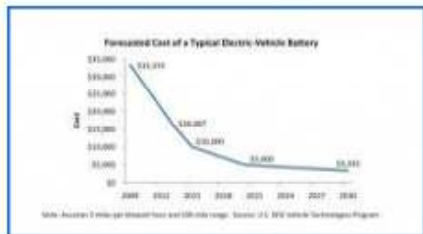


**33:** Percentage by which the DOE expects the typical weight of an electric vehicle battery to drop by 2015 compared to 2009 batteries, thanks to improved energy density.

**>50:** Percentage of oil consumed in the U.S. that's imported.

**95:** Percentage of power used to move cars, trucks, ships, trains and planes in the U.S. that comes from oil.

**<500:** The number of electric vehicle charging locations available in the U.S. prior to stimulus investments.



**4,000:** The DOE's estimate of the dollar cost for a battery delivering 40 miles of electric range (in a plug-in hybrid, for example) in 2015, compared to an estimated \$6,700 in 2013 and more than \$13,000 in 2009.

**5,000:** The number of charging stations that Coulomb Technologies plans to deploy at residential and commercial locations in nine metro areas using a \$15 million stimulus grant.

**10,000:** The DOE's estimate of the dollar cost for the battery needed to give an electric car 100 miles of range by the end of 2015, compared to an estimated \$16,000 in 2013 and \$33,000 in 2009.



electric vehicle charging stations expected at public locations by December 2013.

total square meters of separator materials from the plant in North Carolina each year with a \$49.2 million DOE grant.

that the DOE is investing in electric vehicle power efforts to “electrify America’s transportation Technology Vehicles Manufacturing loc

November 30, 2010

The Honorable Steven Chu  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

Dear Secretary Chu:

On behalf of the Midwestern Governors Association, I submit the following comments in response to the U.S. Department of Energy's (DOE's) draft version of its *2010 Hydrogen and Fuel Cell Program Plan*. Thank you for the opportunity to comment on this well conceived document.

Many Midwestern states have robust hydrogen and fuel cell industries—some manufacturing the fuel cells themselves, some participating in the supply chain, others heavily involved in fuel cell and hydrogen research and development, and still others have enormous hydrogen production potential from renewable and low-carbon energy sources. Thus, the Midwest has a strong stake and interest in the direction the DOE proposes to take its hydrogen and fuel cell program in the coming years.

The MGA would like to highlight a few areas in DOE's proposed document where we hope you will reconsider your approach:

**Hydrogen Storage.** The draft document continues to emphasize the lack of an adequate hydrogen storage technology, stating that "advanced storage systems will be required," and that compressed hydrogen storage tanks "are heavier and take up more space than conventional fuel tanks." While the latter is true, we would propose that this is not the appropriate metric by which to compare vehicle and fuel options. The standard should be the *total space for all equipment*, not a component-by-component comparison with existing technology. For example, unlike conventional vehicles, fuel cell electric vehicles (FCEVs) do not require a bulky transmission or a catalytic converter. Indeed, the total on-board volume for a hydrogen tank, the fuel cell system and a peak power battery on a FCEV will be less than the space occupied by even an advanced lithium-ion battery pack on a battery electric vehicle (BEV). Since it seems unlikely that the DOE will require a significant reduction in battery volume before pursuing BEVs, the proposed plan could, instead, use "total volume for all equipment" as the performance metric.

**Vehicle Range.** The proposal does not seem to acknowledge that DOE lab engineers have validated that the Toyota Highlander FCEV (which Toyota calls the FCHVadv) has achieved a range of 431 miles under on-road conditions. Instead, the draft document quotes a maximum FCEV range of 254 miles from the National Renewable Energy Lab's "learning demonstration" program. The MGA would like to understand the rationale for using the lower number.

**Hydrogen Infrastructure.** The proposed plan acknowledges that six companies (Daimler, GM, Honda, Hyundai, Proterra and Toyota) have announced plans to commercialize FCEVs before 2015, and that other countries are planning aggressive hydrogen infrastructure and FCEV deployments. This includes Japan's plans to deploy 1,000 hydrogen fueling stations and 2 million FCEVs by 2020 and Germany's plans to deploy 1,000 hydrogen fueling stations by 2017.

The draft document also states that DOE will monitor and coordinate hydrogen infrastructure activities in the field. Then, the plan goes on to say that "...large-scale establishment of hydrogen infrastructure will involve a partnership with industry and other agencies such as DOT [U.S. Department of Transportation], and will occur beyond the scope of the RD&D [research, development and deployment] program." Additional clarification on what this means in practice would be greatly beneficial.

Establishing a robust hydrogen refueling infrastructure will require a partnership that includes industry and other state and federal agencies. However, the MGA hopes the sentiment expressed above does not mean that DOE will stop using its hydrogen and fuel cell program to continue partial funding of hydrogen infrastructure in a thoughtful and coordinate way. This will be essential to making continued progress toward commercializing FCEVs, especially as automakers prepare to manufacture significant numbers of fuel cell electric vehicles by 2015.

As you may know, McKinsey & Company has released a comprehensive report for the European Union (EU) on fuel cell electric vehicles. Among their conclusions are the following:

1. FCEVs are ready for commercialization now; and that battery-electric vehicles will be limited to short range, small vehicles, while FCEVs can achieve the same range and performance as today's medium and large internal combustion engine vehicles.
2. FCEVs will eventually cost less than BEVs in terms of total operating costs;
3. Installing a EU-wide electrical charging network will cost more (500 billion Euros) over the next 40 years than installing a hydrogen infrastructure (100 billion Euros over the same time period.); The report notes, "A dedicated hydrogen infrastructure is therefore justified and doable."
4. While the McKinsey & Company analysis focuses on Europe, the technology and cost assessment is applicable worldwide—and the policy conclusions are relevant to the U.S., especially since our country has an even greater percentage of medium and heavy-duty vehicles and we drive longer distances.
5. Long lead times make it "a matter of urgency" that governments adopt programs to support vehicle sales and infrastructure in the early years.

Again, while McKinsey & Company's findings are tailored to Europe, we believe the federal government should take the same clear-eyed look at the costs and benefits of each of the most promising vehicle-fuel combinations and pursue them in tandem for a set period of time and then let the market decide which are the best options for particular market segments.

Where fuel cell electric vehicles and hydrogen are concerned, this would mean investing in hydrogen infrastructure in key locations to prove out the commercial readiness of fuel cell electric vehicles.

In October of 2009, Midwestern governors adopted their *Midwestern Energy Infrastructure Accord* (Infrastructure Accord). In addition to other agreements, the Infrastructure Accord calls for the deployment of low-carbon refueling infrastructure across the region that would include biofuels, electricity, hydrogen and potentially other fuels. The MGA would like to have the DOE as a partner in making this infrastructure a reality in order to reduce our dependence on overseas oil and the geopolitical entanglements and high costs it imposes. A copy of the document can be found at <http://www.midwesterngovernors.org/Publications/InfrastructureAccord.pdf>.

Thank you for your consideration of our comments regarding DOE's *Hydrogen and Fuel Cell Program Plan*. Midwestern governors look forward to working with you and your staff as you work to finalize the document. I hope our submitted comments will be of assistance and I look forward to hearing from you and your staff shortly on how we can work together on our similar interests. Should you require any further assistance, please contact me at [jheier@csg.org](mailto:jheier@csg.org) or 202-624-5460.

Sincerely,





December 12, 2008

Mr. Lachlan Seward, Director, Advanced Technology  
Vehicles Manufacturing Incentive Program  
U.S. Department of Energy  
1000 Independence Ave., S.W.  
Department of Transportation, West Building  
Washington, DC 20585

**Comments on Advanced Technology Vehicles Manufacturing Incentive Program, Interim  
Final Rule, 73 FR 66721, November 12, 2008, Docket No. DOE-HQ-2008-0020**

Dear Mr. Seward:

Public Citizen respectfully submits the following comments regarding the interim final rule (IFR) promulgated for the advanced technology vehicles manufacturing incentive program authorized in Section 136 of the Energy Independence and Security Act (EISA).<sup>1</sup> The biggest concerns regarding this program are the choice of a static definition for the base year, and the establishment of "performance" categories for comparing vehicles with "substantially similar" attributes.

Public Citizen is a national non-profit public interest organization with over 80,000 members nationwide, representing consumer interests through regulatory oversight, research, public education, lobbying and litigation. The President of Public Citizen, Joan Claybrook, was Administrator of NHTSA from 1977 to 1981 and has been advocating for improvements in highway and auto safety for over forty years.

*Context*

Comment on this IFR comes in the midst of a complicated and rapidly-changing context regarding the state of the domestic auto industry. This context warrants some brief discussion. Specifically, due to rapidly deteriorating conditions in the domestic auto industry, the promulgation of these regulations was substantially expedited as a result of pressure from the domestic auto industry and others to quickly issue regulations to disperse funds from this program. As a result, DOE made the IFR public three weeks in advance of the deadline set by Congress in the continuing resolution, on November 5, instead of November 29, 2008.

However, before the IFR was published, the automakers had begun discussing the possibility of seeking a bailout, separate from the loan guarantees that would be provided through the advanced technology vehicles manufacturing incentive program.<sup>2</sup> Representatives

As the form of the bailout was negotiated, one major issue was the source of funding, in particular, the Bush administration and Republican members of Congress supported using the money appropriated by Congress to fund the advanced technology vehicles manufacturing incentive program. The Democratic leadership supported using money from the Troubled Assets Relief Program (TARP) fund.<sup>4</sup> There was disagreement about whether the TARP fund was intended to provide this kind of support, and the U.S. Department of Treasury and the Federal Reserve expressed the position that this money was not available to the auto industry to be used for this purpose.<sup>5</sup> The House version of the bill, which was passed on December 10, 2008, would borrow money from the advanced technology vehicle manufacturing incentive program.<sup>6</sup>

While the auto bailout was ultimately tabled in the Senate, the fate of federal assistance to the auto industry remains unclear. Whether Congress will revisit this issue when it reconvenes in January is unclear. What is important to clarify is that the funds appropriated for the Section 136 program should go to fund retooling projects that will result in advanced technology vehicles.

### *Requirements of Section 136*

Section 136 outlines some specific requirements for eligibility for loans. In particular, the section defines advanced technology vehicles:

- (1) **ADVANCED TECHNOLOGY VEHICLE.**—The term “advanced technology vehicle” means a light duty vehicle that meets—
- (A) the Bin 5 Tier II emission standard established in regulations issued by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act (42 U.S.C. 7521(i)), or a lower-numbered Bin emission standard;
  - (B) any new emission standard in effect for fine particulate matter prescribed by the Administrator under that Act (42 U.S.C. 7401 et seq.); and
  - (C) at least 125 percent of the average base year combined fuel economy for vehicles with substantially similar attributes.

However, it is the responsibility of DOE to define “base year” and “substantially similar attributes.”

Also,

- (3) **SELECTION OF ELIGIBLE PROJECTS.**—The Secretary shall select eligible projects to receive loans under this subsection in cases in which, as determined by the Secretary, the award recipient—
- (A) is financially viable without the receipt of additional Federal funding associated with the proposed project;
  - (B) will provide sufficient information to the Secretary for the Secretary to ensure that the qualified investment is expended efficiently and effectively; and
  - (C) has met such other criteria as may be established and published by the Secretary.

On December 4, 2008, DOE announced that it was reviewing the first applications for retooling loans under the program, citing that the agency needed more information.<sup>7</sup>

### *DOE must select a moving target base year*

Congress left the authority to DOE to determine how to define the base year from which fuel economy improvements are determined for establishing eligibility of certain projects for financing under Section 136. DOE has selected the "base year" to be model year 2005.<sup>8</sup> We acknowledge the agency's observation that the average fuel economy was greater in model year 2005 than subsequent years; however, since we do not know the timeline by which DOE will award loan guarantees under this program, it is important that the base year be adjusted. We recommend that the base year reflect the most recent model year with the highest fuel economy, at the time the loan guarantee is granted by DOE. Based on this definition, we acknowledge that model year 2005 meets this criterion; however, we ask that the regulation be amended to adjust the baseline for the most recent data available from NHTSA.

We acknowledge that the 2007 energy law only authorized \$25 billion in loan guarantees, and that the program will continue to parcel out the money until it has been exhausted. However, in consideration of the need for a moving base year it seems possible that the industry will attempt to get this program extended, given the financial state of the auto industry, and the potential for these difficulties to also affect the supplier companies. The program was initially created to encourage manufacturers to build advanced vehicles, and alleviate the pressure of moving forward with the capital-intensive process of retooling to build these vehicles, while still being able to meet their fuel economy obligations under the new standards set in EISA. The circumstances and financial health of the industry have deteriorated significantly since EISA was passed in December 2007.

### *The definition of "performance" vehicles is problematic*

In defining "substantially similar attributes," DOE started with the classifications of vehicles used by the Environmental Protection Agency (EPA), but added classifications for "performance" vehicles, which have a horsepower to weight ratio substantially greater than other vehicles that are otherwise similar. We acknowledge that defining and separating "performance" vehicles, whose fuel economy numbers are significantly lower than otherwise similar vehicles, potentially results in fuel economy improvements for vehicles with "substantially similar attributes" that are greater than the values that would result from averaging in the fuel economy of these vehicles. However, DOE does not make any attempt to exclude these vehicles from eligibility from the program, which potentially permits automakers to use these loan guarantees to retool facilities to build vehicles that would only meet the fuel economy standards set for the 1985 model year.<sup>9</sup>

A better approach to addressing the "performance" vehicle classification would be to require that vehicles with this classification make a 125 percent improvement over the fuel economy standard for the applicable model year. Until the 2011 model year, this would be a 125

of advanced technology vehicles undermines the goals of the program, which should encourage retooling facilities to build vehicles that will substantially improve fuel economy, and reduce oil consumption and greenhouse gas emissions.

### *Priority should be given to projects that will increase fleetwide fuel economy*

DOE, in reviewing applications, should give priority to projects that have the potential to substantially affect a manufacturers' overall fleet fuel economy. Significantly improving the fuel economy of a single vehicle model is important. However, if the manufacturer still relies heavily on vehicles that are not fuel efficient, then the benefit of a single fuel-efficient vehicle can be eroded or overwhelmed. This kind of priority treatment would encourage broad application of fuel efficient components, which would do more to reduce oil consumption and improve overall fuel economy than applying technology to one vehicle in a manufacturer's fleet.

### *We support exclusion of dual fuel credit in determining improvement in fuel economy*

The dual fuel credit that was established in 1988 as part of the Alternative Motor Fuels Act provides manufacturers of vehicles capable of running both on two or more fuels. This overwhelmingly refers to vehicles that run on gasoline or a mix of gasoline and ethanol (commonly E85, a blend of 15 percent gasoline and 85 percent ethanol). The program has failed to achieve its apparent goal of promoting expanded alternative fuels consumption, and has been a loophole for automakers to comply with their fuel economy burden.

For the purposes of financing projects under Section 136, DOE has expressed that the improvement in fuel economy will not be calculated including the dual fuel credit.<sup>10</sup> This is appropriate since the credit does not reflect a gain in fuel economy, but rather is awarded as an incentive for the manufacture of these vehicles. This stipulation must be retained.

### *Consumer and environmentalists not involved in developing this program*

Public Citizen acknowledges that there was significant pressure to issue the IFR quickly, both from the statutory requirement that an IFR be issued 60 days after the funds were appropriated, and from the ailing auto industry. However, DOE found time to meet with the auto industry and supplier companies. We are troubled that no meetings were held with any consumer or environmental interest groups. It is important that the agency meet with a broad range of stakeholders to get a complete picture of the issues and concerns regarding the development of such a program.

### *Conclusion*

The DOE must structure this program to maximize its potential to encourage fuel economy gains that will result in reduced oil consumption and foreign oil imports, and reduce greenhouse gas emissions. This program was meant as a supplement to the improvements to be made by the mandated increases in fuel economy in EISA, and should be carried out with that in

"performance" cars, to encourage that gains made in these vehicles are at least 125 percent of the applicable fuel economy standard for the model year that the vehicle is to be built...



<sup>2</sup> See David Herzenhorne and Carl Hulse. "Democrats Seek Help for Carmakers." *The New York Times*. (December 11, 2008).

<sup>3</sup> See Justin Hyde and Todd Spangler. "Deal reached for auto loans; GOP senators pledge to oppose plan." *Detroit Free Press*. (December 9, 2008).

<sup>4</sup> Established as part of the Emergency Economic Stabilization Act. P.L. 110-343. (October 3, 2008).

<sup>5</sup> See Margaret Carlson. "Bankers Smoke Auto CEOs in Bailout Grand Prix." *Bloomberg.com* (December 4, 2008).

<sup>6</sup> See Harry Stoffer. "Congress nears accord on Detroit 3 bailout." *Automotive News*. (December 5, 2008).

<sup>7</sup> David Shephardson. "Energy Department seeks more info on \$16 billion in auto retooling requests," *The Detroit News*. (December 4, 2008).

<sup>8</sup> 73 *Fed. Reg.* 66723.

<sup>9</sup> See 73 *Fed. Reg.* 66727. Fuel economy values for performance categories are 27.8 mpg, 28.0 mpg, 28.5 mpg and 29.5 mpg. The model year 1985 fuel economy standard is 27.5 mpg, and still stands today. A 125 percent improvement over 27.5 mpg is 34.4 mpg.

<sup>10</sup> 73 *Fed. Reg.* 66725.

**LOAN GUARANTEE AGREEMENT**

dated as of [\_\_\_\_], 20[\_\_]

among

**THE HOLDERS**

identified herein, their successors and permitted assigns,

and

**THE UNITED STATES DEPARTMENT OF ENERGY,**

as Guarantor,

and

[\_\_\_\_\_  
as Administrative Agent

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DOE FIPP Guarantee No. [\_\_\_\_]

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This LOAN GUARANTEE AGREEMENT dated as of [\_\_\_\_], 20[\_\_\_\_] (this "Guarantee Agreement") is made by and among each of (i) the lenders which are signatories hereto, together with their respective successors and permitted assigns ("Holders"); (ii) the United States Department of Energy, acting through the Secretary of Energy (or any person to whom the Secretary shall have delegated appropriate authority) ("DOE"); and (iii) [\_\_\_\_], as Administrative Agent.<sup>1</sup> Capitalized terms used but not otherwise defined in this paragraph or the following recitals have the meanings given in Section 1 below.

WITNESSETH:

WHEREAS, pursuant to Section 1705 of Title XVII of the Energy Policy Act of 2005 (Pub. L. No. 109-58), as amended, including by Title IV of the American Recovery and Reinvestment Act of 2009 ("Title XVII"), DOE is authorized to issue "guarantees" with respect to "obligations" financing "eligible projects," in each case as defined in Title XVII;

WHEREAS, pursuant to Section 1705 of Title XVII, an application, dated [\_\_\_\_], 2009, was made for the issuance by DOE of a guarantee of a portion of the principal of and interest on a loan obligation of [\_\_\_\_] (the "Borrower") to certain Holders the proceeds of which will fund an eligible project (the "Eligible Project");

WHEREAS, the Holders, the Borrower, DOE, the Administrative Agent and the other parties identified therein have entered into a loan agreement dated as of the date hereof (as the same may be amended, supplemented, restated or otherwise modified in accordance with its terms, the "Loan Agreement") providing for the Holders to extend a loan in connection with the Eligible Project (the "Guaranteed Obligation") to the Borrower upon the terms and conditions specified therein in the aggregate principal amount, when fully drawn, of [\_\_\_\_] Dollars (\$[\_\_\_\_]);

WHEREAS, the Holders, the Borrower and the Administrative Agent have satisfied the conditions precedent to the issuance of this Guarantee Agreement by DOE set forth in the Loan Agreement;

WHEREAS, it is a condition precedent to the making of the Guaranteed Obligation that DOE execute and deliver this Guarantee Agreement to the Administrative Agent and the Holders; and

WHEREAS, subject to the terms and conditions of this Guarantee Agreement, DOE is willing to guarantee to the Administrative Agent for the benefit of the Holders, as specified herein, the payment of certain of the Borrower's obligations under the Loan Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the parties hereto agree as follows:

<sup>1</sup> The Guarantee Agreement is to be executed by all Holders, including the Lead Lender. The Lead Lender is to execute also in its capacity as Administrative Agent.



Unplugged:  
Electric vehicle realities versus  
consumer expectations

# Contents

- 
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# Executive Summary

Electric vehicles (EVs) have been around since the earliest days of the automotive industry. In recent years, however, as the price of oil has risen steadily and concerns about the environment have increased, interest in EVs has intensified.

This interest is coming from a number of sources, including government and industry. Policymakers, automotive executives, and electric utility industry executives are each, in their own way, trying to understand when and where consumers are most likely to adopt EVs and exactly how many may be on the road next year, five years from now, or 10 years or longer from now. As they work together, and apart, in this complicated dance toward the next generation of personal mobility, with profound implications for all parties, it still comes down to the consumer. It is the consumer, looking for a less-expensive, greener transportation alternative with all the performance qualities of a traditional car, whose interest is the most intriguing and perhaps the most complicated. It is the consumer, after all, who will tell manufacturers how close they are to creating a vehicle that has a chance to achieve mass popularity in the marketplace.

With that in mind, Deloitte Touche Tohmatsu Limited's (DTTL) Global Manufacturing Industry group undertook an extensive global study designed to gauge consumer attitudes toward pure EVs. While the broad category of EVs available today include a variety of hybrid vehicles using some form of both electric motor propulsion and internal combustion engines, this study focused exclusively on the pure electric vehicle. In this way, the study serves to anchor the far end of today's automotive product offerings and create clarity for all those either participating in the study or interested in

the findings. The study was based on a survey of over 13,000 individuals in 17 countries and, in addition to inquiring into willingness and intent to purchase, asked respondents a variety of questions related to the car's major selling points, including price, range, and charge time.

The survey, conducted between November 2010 and May 2011, revealed that the majority of consumers are either willing to consider the purchase of an electric vehicle or see themselves as potential first movers when it comes to electric vehicle adoption. Potential first movers were those respondents who indicated they were very interested in purchasing an electric vehicle and were likely to purchase or lease a new vehicle of some kind within the next 12 months.

However, deeper questioning revealed a significant gap between consumer expectations of electric vehicle capabilities and what an electric vehicle can deliver today. Consumers generally felt that EVs should be able to go farther, on less charge time, for a cheaper price than automakers are currently able to offer.

This gap—and where it manifests itself most dramatically and where it might be most easily closed—will be of special interest to automakers operating in the electric vehicle space.

This report looks closely at the results of the survey, with special attention to geographical differences and similarities in consumers' responses. It also provides critical context by contrasting consumer perceptions and expectations with the current realities of electric vehicle technology.

alternatives after being turned down for the loan under the Advanced Technology Vehicle Manufacturing program.

"We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly-charged, election year environment," William Santana Li, Carbon's chairman and chief executive officer, said in a statement.

The statement referred to Solyndra LLC, a California-based solar panel manufacturer that received a half-billion dollar loan and became the first alternative energy company to receive a loan guarantee under a stimulus-law program that President Barack Obama promoted. After the company went bankrupt in September, Republicans seized on it to criticize Obama.

Carbon had planned to hire 1,500 people to build its police cars in a former auto parts factory.

Daniels said he was "deeply disappointed for the people of Connersville and those who tried to bring this promising business here."

"It would have been far better if the federal government had never gone into the banking business. Companies like Carbon that might have proceeded and succeeded with a conventional business plan were seduced into wasting irreplaceable years chasing federal subsidies that never happened," Daniels said.



20% of its throughput, and cited this figure to two references neither of which said anything of the sort. Such extreme leakage in a commercial H<sub>2</sub> production and delivery system would trigger immediate shutdown to prevent serious safety and economic problems. Knowing of no evidence for H<sub>2</sub> leakage rates within at least an order of magnitude of the claimed range, I wrote to the authors' contact, Y.L. Yung, on 13 June asking if they had any, but have received no reply.

Now these authors, with J.M. Eiler as senior respondent, seek to defend their key assumption by shifting the supposed leakage source (at least very largely) from the hydrogen supply and transportation system to boiloff from the cryogenic storage tanks of LH<sub>2</sub>-fueled cars—an "important part... of current plans for a hydrogen economy and... prone to H<sub>2</sub> losses." But their 12 new citations for this claim (1)—five of them nontechnical news stories—don't support it either, for two reasons: cryogenic automotive engineering and H<sub>2</sub> system economics.

First, LH<sub>2</sub> boiloff from an automotive cryogenic storage tank does not equate to gaseous (G) H<sub>2</sub> emissions. Boiloff begins after a "dormancy" interval that the authors' ref. 11 states for the Linde/GM tank is 3 days from filling (their ref. 7 says 0 to 3 days) and their ref. 4 states is ~4 to 5 days in "a completely filled state-of-the-art design." (Most cars are run daily.) Boiloff then ranges from ~4% per parking day for the Linde/GM tank design to only 1%/day as stated in their ref. 4 (2). That source also explains that in properly designed automotive tanks, boiloff creates cold pressurized GH<sub>2</sub> that is held above the LH<sub>2</sub> and used as the first fuel when the vehicle restarts (3). In parking so prolonged as to exceed most tanks' ~0.5–0.6 MPa headgas capacity (after a dormancy period that increases to the extent the LH<sub>2</sub> tank is only partly filled), the excess GH<sub>2</sub> would in practice be not vented but catalytically oxidized to meet safety regulations, using commonplace (not just imaginable) technology, as Lehman's letter and the authors' ref. 12 suggest. It is thus implausible that any material fraction of boiloff from automotive LH<sub>2</sub> tanks would enter the atmosphere. Yet Tromp *et al.* assume that all boiloff will do so, from every car, at worst-case rates (30× DOE's 2015 goal), after zero dormancy.

Second and more importantly, as my 10 October letter explained, LH<sub>2</sub> is "so costly to produce and distribute that it is only 10<sup>-3</sup> of current H<sub>2</sub> production... and is unlikely to compete in any significant future markets except cryoplanes, which should have low H<sub>2</sub> losses." (4) Yet from the goals of diversified R&D portfolios, the existence of a few LH<sub>2</sub> concept cars, an emerging European technical standard for LH<sub>2</sub> refueling equipment, and BMW's unique interest in LH<sub>2</sub> (albeit not for traction fuel cells) the authors conjure up a broad industry trend toward LH<sub>2</sub> storage for fuel-cell vehicles. This is the opposite of the truth. LH<sub>2</sub> technology works, remains an option, and retains a dwindling band of enthusiasts, but most vehicle designers now favor compressed GH<sub>2</sub> because it is cheaper, lighter, and easier, and because the range limitations formerly imposed by its greater bulk (5) have been overcome. No designer proposes "low-pressure" H<sub>2</sub> tanks, which would indeed have "poor range," but high-pressure GH<sub>2</sub> tanks don't, are commercially available, are cheap to mass-produce, and are the modern industry norm. More exotic storage methods may well emerge but, like LH<sub>2</sub>, are not necessary.

For example, an uncompromised, cost-competitive, quintupled-efficiency, midsize fuel-cell concept SUV designed in 2000 (6), using then standard 35 MPa GH<sub>2</sub> tanks, has a simulated

five adults in comfort, and 1.96 m<sup>3</sup> of cargo with the rear seats folded flat, in a vehicle the size of a Lexus RX-300, haul a half-ton up a 44% grade, and accelerate 0 to 100 km/h in 8.3 s. Other designers have addressed GH<sub>2</sub>'s packaging challenges in other ways.

Lossless high-pressure tanks' acceptance by nearly all automakers is due not just to their adequate range and excellent safety, but also to superior whole-system economics. Tromp *et al.* claim LH<sub>2</sub>'s greater compactness "suggests [it]... could outcompete the alternatives on the open market, despite less effective fuel efficiency" (9). But cost matters too. Their only evidence that LH<sub>2</sub> can beat GH<sub>2</sub> in \$ per dispensed kg, their ref. 5 (apparently based on data from competing central-plant providers), assumes that decentralized methane reformers at filling stations will deliver ~1.8–2.4× costlier H<sub>2</sub> than its leading vendor, or almost any other expert, believes (10).

The authors' claim of competitive LH<sub>2</sub> prospects, like their original leakage-rate claim, appears to rest on a deficient understanding of hydrogen and automotive technology and of their own citations of 10 October. Indeed, their refs. 2 and 4 describe LH<sub>2</sub>'s unpromising economics, their refs. 2 and 3 emphasize other storage technologies, and their ref. 7 shows that LH<sub>2</sub> receives less of GM's R&D funding than any other technological storage option.

Tromp *et al.* still don't acknowledge that H<sub>2</sub>'s atmospheric impacts would depend not on gross H<sub>2</sub> emissions, as they claimed, but on net effects, including how switching to H<sub>2</sub> would reduce or eliminate current anthropogenic H<sub>2</sub> and other (notably CO<sub>2</sub>) emissions, depending on the H<sub>2</sub> production methods adopted. But first let's recognize that their claimed 10 to 20% gross leakage rate remains as absurd as when they first published it—too high by one or two orders of magnitude. Properly counting offsetting decreases in H<sub>2</sub> and other emissions would thus almost certainly decrease, not increase, net anthropogenic H<sub>2</sub> emissions to the atmosphere. Discussing when those emissions might occur and what they might do can wait until we get their sign right.

AMORY B. LOVINS (11), ROCKY MOUNTAIN INSTITUTE

11 October 2003

1. All 12 are posted. Missing URLs are: ref. 2 at [www.hut.fi/Units/AES/staff/hottinen.htm](http://www.hut.fi/Units/AES/staff/hottinen.htm), ref. 3 [www.jlab.org/hydrogen/talks/Milliken.pdf](http://www.jlab.org/hydrogen/talks/Milliken.pdf), ref. 6 [http://media.gm.com/about\\_gm/vehicle\\_tech/fuel\\_cell/stationary/operation.pdf](http://media.gm.com/about_gm/vehicle_tech/fuel_cell/stationary/operation.pdf), ref. 9 [http://216.239.53.104/search?q=cache:HqNOIgzXgc0J:www.h2cars.biz/artman/publish/p\\_rinter\\_7.shtml+Hydrogen+goes+a+long+way&hl=en&ie=UTF-8](http://216.239.53.104/search?q=cache:HqNOIgzXgc0J:www.h2cars.biz/artman/publish/p_rinter_7.shtml+Hydrogen+goes+a+long+way&hl=en&ie=UTF-8), and ref. 12 [www.clean-and-safe.org/task\\_Forces/auto\\_safety/project.php?page=showcomments&id=89](http://www.clean-and-safe.org/task_Forces/auto_safety/project.php?page=showcomments&id=89).
2. The authors' response ascribes a 2 to 4%/day range to their refs. 6 (3 to 4%/day), 7 (4%/day), 11 (4%/day) and 12 (1 to 3%/day), ignoring their ref. 4's 1%/day. Their ref. 2 cites a recent range from 0.06%/day for large to 3%/day for small tanks, and states that the losses "can be reduced through proper insulation." Their ref. 1 sets DOE loss targets of 2.4%/day in 2005 but only 0.12%/day in 2015, 15 to 30× less than they assume.
3. When parked, excess H<sub>2</sub> can be trickled into the fuel cell (an already-installed way to oxidize it safely and usefully) to top up the load-leveling device, to maintain minimum fuel-cell or car temperature in very cold weather, or to perform other standby functions.
4. The losses are low because conventional tanks would be kept cold continuously, their fuel

tankage is small enough to package, then what matters is system mass, which favors  $\text{GH}_2$ . The 35-MPa  $\text{GH}_2$  SUV mentioned in the following paragraph stores 3.4 kg (137 L at 35 MPa) of  $\text{GH}_2$  in three tanks totaling 26.2 kg plus 7 kg of filler, lines, regulators, etc. The  $\text{H}_2$  mass is thus 11.5% of the filled tank mass or 9.9% of the filled system mass—exceeding the 9% DOE system-mass-fraction goal for 2015 cited in Eiler *et al.*'s reply's ref. 1, and comparing well with the 5.3–10.9%  $\text{LH}_2$  range cited in their ref. 7. The Linde/GM cryogenic tank described in their refs. 10–11 weighs 90 kg and holds 4.6 kg of  $\text{LH}_2$ —a filled tank  $\text{H}_2$  mass fraction of only 4.9%, or 57% worse than 35-MPa  $\text{GH}_2$  tanks.

- [www.hypercar.com/pages/casestudies.php](http://www.hypercar.com/pages/casestudies.php); A.B. Lovins & D.R. Cramer, "Hypercars<sup>®</sup>, hydrogen, and the automotive transition," *Intl. J. Vehicle Design*, in press, 2004.
- The simulation yielded USEPA combined urban/highway driving performance equivalent to 2.38 L/100 km, 42 km/L, or 99 miles per US gallon, after multiplying all vectors in the USEPA driving cycles by 1.3 to emulate realistic on-road fuel economy. (The average MY2000 US small light truck was EPA-rated at 11.47 L/100 km or 20.5 mpg, but actually did 18.7% worse than that; the 1.3 $\times$  speed multiplier should at least compensate.) The simulation was independently performed by Forschungsgesellschaft Kraftfahrwesen mbH Aachen using an industry-standard second-by-second physics simulation tool and empirical component maps. Each driving cycle was run three times in succession to minimize any artifacts of the initial state of charge of the 35-kW load-leveling batteries. The platform's detailed virtual design was developed by Hypercar, Inc. and prime contractor TWR Engineering (UK).
- Manufacturable at competitive cost at midvolume using Hypercar, Inc.'s patented Fiberforge<sup>™</sup> process: D.R. Cramer & D.F. Taggart, "Design and manufacture of an affordable advanced-composite automotive body structure," *Procs. 19<sup>th</sup> Intl. Battery, Hybrid and Fuel Cell El. Veh. Sympos. & Exhibition, EVS-19* (Seoul), [www.hypercar.com/pdf/Hypercar\\_EVS19.pdf](http://www.hypercar.com/pdf/Hypercar_EVS19.pdf).
- Apparently an odd reference to the energy required for liquefaction, currently ~40% of the  $\text{H}_2$ 's Higher Heating Value, hence 47% of its Lower Heating Value (the energy content relevant to fuel cells), according to Eiler *et al.*'s references. This seems somewhat high: very large (>40 T/day) 2001 state-of-the-art liquefaction plants can reduce the 35% to 28%, and with more advanced techniques, to ~21%, or 7 kWh/kg. The theoretical minimum energy for converting 0.1-MPa (ambient-pressure) *n*- $\text{GH}_2$  to *p*- $\text{LH}_2$  is ~3.92 kWh/kg: W. Weindorf, U. Büniger, & J. Schindler, "Comments on the Paper by Baldur Eliasson and Ulf Bossel, 'The Future of the Hydrogen Economy: Bright or Bleak?'," including Addendum, July 2003, L-B-Systemtechnik, Ottobrunn, Germany, [http://www.hyweb.de/News/LBST\\_Comments-on-Eliasson-Bossel-Papers\\_July2003\\_protected.pdf](http://www.hyweb.de/News/LBST_Comments-on-Eliasson-Bossel-Papers_July2003_protected.pdf).
- E.g.*, C.E. Thomas, "Hydrogen and Fuel Cells: Pathway to a Sustainable Energy Future," [http://66.160.67.66/PDF\\_Documents/whitepaper.pdf](http://66.160.67.66/PDF_Documents/whitepaper.pdf), which uses comparable or slightly more pessimistic assumptions (including a 9% higher gas price).
- The writer holds options or shares, currently worth a total of less than \$10,000, in three firms related to fuel cells, and chairs one of them (Hypercar, Inc.)

20 June 2003

Hydrogen technologies are maturing. The world's existing hydrogen industry is starting to be recognized as big — producing one-fourth as much volume of gas each year as the global natural-gas industry. Industry, government, and civil society are becoming seriously engaged in designing a transition from refined petroleum products, natural gas, and electricity to hydrogen as the dominant way to carry, store, and deliver useful energy. New transitional paths are emerging, some with a vision across sectoral or disciplinary boundaries that makes them harder for specialists to grasp. Naturally, there's rising speculation about winners, losers, and hidden agendas. And as the novel hydrogen concept is overlain onto longstanding and rancorous debates about traditional energy policy, constituencies are realigning in unexpected ways.

In short, the customary wave of confusion is spreading across the country. What's this all about? Is hydrogen energy really a good idea? Is it just a way for incumbent industries to reinforce their dominance, or could it be a new, different, and hopeful melding of innovation with competition? Is it a panacea for humanity's energy predicament, or a misleading *deus ex machina* destined to inflict public disappointment and cynicism, or neither, or both?

The conversation about hydrogen is confused but hardly fanciful. The chairs of eight major oil and car companies have said the world is entering the oil endgame and the start of the Hydrogen Era. Royal Dutch/Shell's planning scenarios in 2001 envisaged a radical, China-led leapfrog to hydrogen (already underway): hydrogen would fuel a fourth of the vehicle fleet in the industrialized countries by 2025, when world oil use, stagnant meanwhile, would start to fall. President Bush's 2003 State of the Union message emphasized the commitment he'd announced a year earlier to develop hydrogen-fuel-cell cars (FreedomCAR).

Yet many diverse authors have lately criticized hydrogen energy, some severely.<sup>1-12</sup> Some call it a smokescreen to hide White House opposition to promptly raising car efficiency using conventional technology, or fear that working on hydrogen would divert effort from renewable energy sources. Some are skeptical of hydrogen because the President endorsed it, others because environmentalists did. Many wonder where the hydrogen will come from, and note that it's only as clean and abundant as the energy sources from which it's made. Most of the critiques reflect errors meriting a tutorial on basic hydrogen facts; hence this paper.

### *Introductory facts*

To establish a common factual basis for exploring prevalent myths about hydrogen, let's start with six points that are universally accepted by hydrogen experts but not always articulated:

- Hydrogen makes up about 75% of the known universe, but is not an energy *source* like oil, coal, wind, or sun.<sup>13</sup> Rather, it is an energy *carrier* like electricity or gasoline — a way of transporting useful energy to users. Hydrogen is an especially versatile carrier be-

extremely high-quality form of energy, and can be so readily converted to electricity and back that fuel-cell pioneer Geoffrey Ballard suggests they be thought of together as a fungible commodity he calls “Hydricity™.”

- The reason hydrogen isn't an energy *source* is that it's almost never found by itself, the way oil and gas are. Instead, it must first be freed from chemical compounds in which it's bound up. There are broadly three ways to liberate hydrogen: using heat and catalysts to “reform” hydrocarbons or carbohydrates, or electricity to split (“electrolyze”) water, or experimental processes, based typically on sunlight, plasma discharge, or microorganisms.<sup>14</sup> All devices that produce hydrogen on a small scale, at or near the customer, are collectively called “hydrogen appliances” to distinguish them from traditional large-scale industrial production.
- Fossil-fuel molecules are combinations of carbon, hydrogen, and various other atoms. Roughly two-thirds of the fossil-fuel atoms burned in the world today are hydrogen. (However, hydrogen yields a smaller share of fossil-fuel energy, because its chemical bonds are weaker than carbon's.) The debate is about whether combusting the last third of the fossil fuel — the carbon — is necessary; whether it might be cheaper and more attractive not to burn that carbon, but only to use the hydrogen; and to what degree that hydrogen should be replaced by hydrogen made with renewable energy sources.
- Using hydrogen as a fuel, rather than burning fossil fuels directly, yields only water<sup>15</sup> (and perhaps traces of nitrogen oxides if used in a high-temperature process). This can reduce pollution and climate change, depending on the source of the hydrogen. But when journalists write that hydrogen can “clean the air,”<sup>16</sup> that's shorthand for keeping pollutants out of the air, not removing those already there.
- Hydrogen is the lightest element and molecule. Molecular hydrogen (two hydrogen atoms,  $H_2$ ) is eight times lighter than natural gas. Per unit of energy contained, it weighs 64% less than gasoline or 61% less than natural gas: 1 kilogram (2.2 lb) of hydrogen has about the same energy as 1 U.S. gallon of gasoline, which weighs not 2.2 but 6.2 pounds.<sup>17</sup> But the flip side of lightness is bulk. Per unit of *volume*, hydrogen gas contains only 30% as much energy as natural gas, both at atmospheric pressure. Even when hydrogen is compressed to 170 times atmospheric pressure (170 bar), it contains only 6% as much energy as the same volume of gasoline. Hydrogen is thus most advantageous where lightness is worth more than compactness, as is often true for mobility fuels.
- One of the biggest challenges of judging hydrogen's potential is how to compare it fairly and consistently with other energy carriers. Fossil fuels are traditionally measured in cost, volume, or mass per unit of *energy content*.<sup>18</sup> That's valid only if the fuels being compared are all used in similar devices and at similar efficiencies, so all yield about the same amount of energy service. But that's not valid for hydrogen. Fuel cells (explained further in Myth #6) are not subject to the same thermodynamic limits as fuel-driven engines, because they're electrochemical devices, not heat engines. A hydrogen fuel-cell car can therefore convert hydrogen energy into motion about 2–3 times as efficiently as a normal car converts gasoline energy into motion: depending on how it's designed and run, a good fuel-cell system is about 50–70% efficient, hydrogen-to-electricity,<sup>19</sup> while a typical car engine's efficiency from gasoline to output shaft averages only about 15–17%

costing several times as much as gasoline per unit of energy contained can thus cost the same *per mile* driven. Since you buy automotive fuel to get miles, not energy, ignoring such differences in end-use efficiency is a serious distortion, and accounts for much of the misinformation being published about hydrogen's high cost. Hydrogen's advantage in cars is especially large because cars run mainly at low loads, where fuel cells are most efficient and engines are least efficient.<sup>21</sup> (Hydrogen can also have other economic or functional advantages that go beyond its efficient use. For example, when hydrogen fuel cells power digital loads in buildings, hydrogen may yield even greater extra value because suitably designed arrays of fuel cells can be exceptionally reliable and can yield the high-quality power that computers need.<sup>22</sup>)

To reinforce this sixth point, the U.S. Department of Energy (DOE) says bulk hydrogen made and consumed onsite costs about \$0.71/kg.<sup>23</sup> That's equivalent in *energy* content to \$0.72 per gallon of gasoline.<sup>24</sup> But *per mile driven* — which is the objective — it's equivalent to about one-third to one-half that price, *i.e.*, to about \$0.24–0.36/gallon-equivalent, because of the 2–3-fold greater efficiency of a hydrogen fuel cell than a gasoline engine in running a car. Of course, the *price* of hydrogen *delivered* into the car's fuel tank will be much higher. For example, DOE says the delivered price of industrial liquid hydrogen is about \$2.2–3.1/kg. If it could be delivered into the tank of a car for the same price, it would be roughly equivalent *per mile* to \$1-a-gallon gasoline. Thus it can cost several times as much to deliver liquid hydrogen as to produce it. (Fortunately, as we'll see, gaseous hydrogen can be produced at a filling station and put into the car for well under \$2/kg.) Price also depends on hydrogen purity. So to assess hydrogen's price or cost or value or benefit meaningfully, we need to know how it'll be used, whether it's pure enough for the task, whether it's delivered to the task, and how much of the desired work it actually does.

### *Different questions yield different answers*

So much for the basics. What's different about Rocky Mountain Institute's perspective that underlies this paper?

- RMI believes that radical but practical and advantageous efficiency improvements at three levels — vehicles, energy distribution, and overall energy infrastructure — can make the hydrogen transition rapid and profitable.
- At least for the next decade or two, RMI envisions a distributed model for hydrogen production and delivery that integrates the gas, electricity, building, and mobility infrastructures. Instead of building a costly new distribution infrastructure for hydrogen, we'd use excess capacity inherent in the existing gas and electricity distribution infrastructures, then make the hydrogen locally so it requires little or no further distribution. Only after this decentralized approach had built up a large hydrogen market in buildings and vehicles could centralized hydrogen production merit much investment, except in special circumstances.

nues.

- RMI recognizes that especially in North America, natural gas is logically the main near-term fuel to launch the hydrogen transition, along with cost-effective renewables. If making hydrogen requires more natural gas (which it may not — see Myth #12), it should come first from natural gas saved by making existing applications more efficient. In the longer run, more mature and diverse renewables will play an important and ultimately a dominant role. Even during the initial, mainly fossil-fueled, stages of the hydrogen transition, carbon emissions will be much smaller than today's emissions from burning those fossil fuels directly. In time, those carbon emissions will approach zero. Insisting that they *start* at zero — that hydrogen be made solely from renewable energy sources, starting now — is making the perfect the enemy of the good. But done right, the hydrogen transition will actually make renewable energy more competitive and speed its adoption.

And what “headlines” will emerge from this perspective in the following discussion?

- **The oft-described technical obstacles to a hydrogen economy — storage, safety, and the cost of the hydrogen and its distribution infrastructure — have already been sufficiently resolved to support rapid deployment starting now. No technological breakthroughs are needed, although many will probably continue to occur. Until volume manufacturing of fuel cells starts in the next few years, even costly hand-made or pilot-produced versions can already compete in substantial entry markets. Automotive use of fuel cells can flourish many years sooner if automakers adopt recent advances in crashworthy, cost-competitive ultralight autobodies. If fuel cells prove difficult to commercialize or hydrogen's benefits are desired sooner, there might even be a transitional role for hydrogen-fueled engine-hybrid vehicles.**
- **The hydrogen transition should not need enormous investments in addition to those that the energy industries are already making. Instead, it will displace many of those investments. Hydrogen deployment may well need *less* net capital than business-as-usual, and should be largely self-financing from its revenues.**
- **A well-designed hydrogen transition will also use *little more*, no more, or quite possibly *less* natural gas than business-as-usual.**
- **A rapid hydrogen transition will probably be *more* profitable than business-as-usual for oil and car companies, and can quickly differentiate the business performance of early adopters.**
- **Most of the hydrogen needed to displace the world's gasoline is already being produced for other purposes, including making gasoline. A hydrogen industry big enough to displace all gasoline, while sustaining the other industrial processes that now use hydrogen, would be only severalfold bigger than the mature hydrogen industry that exists today, although initially it will probably rely mainly on smaller units of production, nearer to their customers, to avoid big distribution costs.**
- **A poorly designed hydrogen transition could cause environmental problems, but a well-designed one can resolve most of the environmental problems of the current fossil-fuel system without making new ones, and can greatly enhance security.**

## *Twenty myths*

### *Myth #1. A whole hydrogen industry would need to be developed from scratch.*

Producing hydrogen is already a large and mature global industry, using at least 5% of U.S. natural gas output. Globally, about 50 million metric tons of hydrogen is made for industrial use each year. That's over half a trillion cubic meters measured at atmospheric pressure.<sup>25</sup> The U.S. Department of Energy (DOE) reports<sup>26</sup> that about 48% of global hydrogen production is reformed from natural gas, 30% from oil, and 18% from coal (chiefly in China and South Africa for producing nitrogen fertilizer; half the world's hydrogen goes into ammonia-based fertilizer). Only 4% of the world's hydrogen comes from electrolysis, because that process can compete with reforming fossil fuels only under three main conditions: with very cheap electricity, generally well under 2¢/kWh (see Myth #9 below); if the hydrogen is a byproduct (about 2%, for example, is unintentionally made during "chloralkali" electrolytic chlorine production); or perhaps if the producer is charged for carbon emissions and has a carbon-free source of electricity but no way to sequester (keep out of the atmosphere) carbon released from reforming fossil fuels.

U.S. hydrogen production is at least one-fifth and probably nearer one-third of the world total,<sup>27</sup> is equivalent to ~1.8% of total U.S. energy consumption, and comes ~95% from natural gas at ~99% purity from steam reforming and associated cleanup processing.<sup>28</sup> Roughly 47% of U.S. or 37–45% of world hydrogen production is reportedly used in refineries;<sup>29</sup> it is made onsite, mostly by steam reforming of gas or oil, and is used mainly to make gasoline and diesel fuel. Most hydrogen production by refineries is deliberate, used to make hydrogen-rich refined products or to remove sulfur from them; some is a byproduct of making aromatic compounds. The rest of the world's hydrogen output goes to ammonia fertilizer, methanol, petrochemicals, edible fats and oils, metal production, microchips, and other products, and a little to special industrial furnaces. World hydrogen production is reportedly doubling about every decade, driven by refineries' need to make lower-sulfur fuels and by other growth industries. Usage for fertilizer has been relatively flat for the past decade, and usage for methanol is growing more slowly (roughly with GDP) as prospects fade for wide use of methanol-derived MTBE gasoline additive, so the biggest growth market for industrial hydrogen appears to be refineries.

The industrial infrastructure for centralized hydrogen production already exists. Throughout industry, most hydrogen is currently made at large plants and is used at the industrial site or nearby. There are ~1,500 km (~930 miles) of special hydrogen pipelines (720 km or 446 miles in North America) operating at up to 100 bar.<sup>30</sup> Moving hydrogen gas through pipelines takes about half as much of its energy as is currently lost when transporting electricity, and the pipeline is far smaller — a 1.7-meter-diameter hydrogen pipeline at 70 bar delivers 16 GW, whereas a 60-meter-tall pylon with three pairs of ±500-kVDC power lines delivers only 9 GW.<sup>31</sup> Hydrogen is less dense and takes more compressor energy than natural gas, but also flows better, so transporting hydrogen through existing natural-gas pipelines would deliver only ~20–25% less en-



Hydrogen pipelines normally carry compressed hydrogen gas, not super-cold liquid hydrogen. Only about 1–3 thousandths of all hydrogen produced is liquefied and cryogenically piped, mainly to NASA launch pads for rocket fuel — an ideal use for a fuel whose density is about as low as the denser grades of Styrofoam.<sup>30</sup>

Centralized hydrogen production has coevolved with centralized consumption by major industrial plants. Yet most future uses of hydrogen are not centralized; they'll serve millions of dispersed customers. This dispersed pattern of usage calls for a different pattern of production, not so much in centralized plants as in small ones near the customers. This can often deliver cheaper hydrogen, because reformers and electrolyzers, which both work well at a small scale, can make hydrogen delivery simpler or unnecessary: instead, they'll leverage the existing gas and electricity distribution grids, especially during off-peak periods when (by definition) they have excess capacity. Driven by the economics of supply and demand, the hydrogen industry will evolve organically at many scales and for many uses — if it's not unduly retarded by myths.

*Myth #2. Hydrogen is too dangerous, explosive, or "volatile" for common use as a fuel.*

The hydrogen industry has an enviable safety record spanning more than a half-century. Any fuel is hazardous and needs due care, but hydrogen's hazards are different and generally more tractable than those of hydrocarbon fuels.<sup>34</sup> It's extremely buoyant — 14.4 times lighter than air (natural gas is only 1.7 times lighter than air). Hydrogen is four times more diffusive than natural gas or 12 times more than gasoline fumes, so leaking hydrogen rapidly disperses up and away from its source.<sup>35</sup> If ignited, hydrogen burns rapidly with a nonluminous flame that can't readily scorch you at a distance, emitting only one-tenth the radiant heat of a hydrocarbon fire and burning 7% cooler than gasoline. Although firefighters dislike hydrogen's clear flame because they need a viewing device to see it in daylight, victims generally aren't burned unless they're actually in the flame, nor are they choked by smoke.

Hydrogen mixtures in air are hard to explode, requiring a constrained volume of elongated shape. In high-school chemistry experiments, hydrogen detonates with a "pop" when lit in a test tube, but if it were in free air rather than a long cylindrical enclosure, it wouldn't detonate at all. Explosion requires at least twice as rich a mixture of hydrogen as of natural gas, though hydrogen's explosive potential continues to a fourfold higher upper limit. Hydrogen does ignite easily, needing 14 times less energy than natural gas, but that's of dubious relevance because even natural gas can be ignited by a static-electricity spark.<sup>36</sup> Unlike natural gas, however, leaking hydrogen encountering an ignition source is far likelier to burn than to explode, even inside a building, because it burns at concentrations far below its lower explosive limit. Ignition also requires a fourfold higher minimum concentration of hydrogen than of gasoline vapor. In short, in the vast majority of cases, leaking hydrogen, if lit, will burn but not explode. And in the rare cases where it might explode, its theoretical explosive power per unit volume of gas is 22 times weaker than that of gasoline vapor. It is not, as has been claimed, "essentially a liquid or gaseous form of dynamite."<sup>37</sup>

drogen but by nonflammable helium, and that probably nobody aboard was killed by a hydrogen fire. (There was no explosion.) The 35% who died were killed by jumping out, or by the burning diesel oil, canopy, and debris (the cloth canopy was coated with what nowadays would be called rocket fuel). The other 65% survived, riding the flaming dirigible to earth as the clear hydrogen flames swirled harmlessly above them. This would hardly be the case if an aircraft with only liquid hydrocarbons caught fire while aloft. It emphasizes that hydrogen is generally at least as safe as natural gas or LPG, and is arguably inherently safer than gasoline,<sup>39</sup> although the character of their risks is not identical. For example, leaking hydrogen gas will accumulate near the ceiling of an airtight garage, while gasoline fumes or propane will accumulate near the floor — a greater risk to people because they're typically near the floor, not the roof. Standing in a carpet of fire is far more dangerous than standing below a nearly non-luminous clear flame that goes upwards.

Lingering perceptions that hydrogen is unusually dangerous are likely to be dispelled by the kinds of compelling videotaped demonstrations now becoming available, such as a comparison of a hydrogen fire with a gasoline fire. First, a hydrogen leak was created, assuming a very unlikely triple failure of redundant protective devices (industry norms for hydrogen leak detection and safety interlocks are convincingly effective). The tested leak, deliberately caused at the highest-pressure location, discharged the entire 1.54-kg hydrogen inventory of the fuel-cell car in ~100 s, but the resulting vertical flame plume raised the car's interior temperature by at most 1–2 °F (0.6–1.1 °C), and its outside temperature nearest the flame by no more than a car experiences sitting in the sun. The passenger compartment was unharmed. But then in the second test, a 2.5-fold-lower-energy leak from a 1.6-mm (1/16") hole in a gasoline fuel line gutted the car's interior and would have killed anyone trapped inside.<sup>40</sup> Because the hydrogen-leak test didn't damage the car, both tests were conducted successively *using the same car*.<sup>41</sup>

Finally, of course, there is no connection whatever between ordinary hydrogen gas, whose chemical reactions make it useful as a fuel, and the special isotopes whose thermonuclear reactions power hydrogen bombs. A hydrogen bomb can't be made with ordinary hydrogen, nor can the conditions that trigger nuclear fusion in a hydrogen bomb occur in a hydrogen accident; they're achieved, with difficulty, only by using an atomic bomb.

*Myth #3. Making hydrogen uses more energy than it yields, so it's prohibitively inefficient.*

Any conversion from one form of energy to another consumes more useful energy than it yields. If it could do the opposite, creating energy out of nothing, you could create a perpetual-motion machine violating the laws of physics. Conversion losses are unavoidable; the issue is whether they're worth incurring. If they were intolerable as a matter of principle, as Myth #3 implies, then we'd have to stop making gasoline from crude oil (~73–91% efficient from wellhead to retail pump<sup>42</sup>) and electricity from fossil fuel (~29–35% efficient from coal at the power plant to retail meter). Such conversion losses are thus not specific to producing hydrogen. Hydrogen production is typically about 72<sup>43</sup> to 85<sup>44</sup> percent efficient in natural-gas reformers or ~70–75% efficient in electrolyzers;<sup>45</sup> the rest is heat that may also be reusable. (These efficiency figures are all

well-to-electricity conversion losses by using one unit of electricity to concentrate and deliver several units of heat. That is, conversion losses and costs are tolerable if the resulting form of energy is more efficiently or conveniently usable than the original form, hence justified by its greater economic *value*. Making hydrogen can readily achieve this goal.

Crude oil can be more efficiently converted into delivered gasoline than can natural gas into delivered hydrogen.<sup>12</sup> But that's a red herring: the difference is far more than offset by the hydrogen's 2–3-fold higher efficiency in running a fuel-cell car than gasoline's in running an engine-driven car. Using Japanese round numbers from Toyota, 88% of oil at the wellhead ends up as gasoline in your tank, and then 16% of that gasoline energy reaches the wheels of your typical modern car, so the well-to-wheels efficiency is 14%. A gasoline-fueled hybrid-electric car like the 2002 Toyota *Prius* nearly doubles the gasoline-to-wheels efficiency from 16% to 30% and the overall well-to-wheels efficiency from 14% to 26%. But locally reforming natural gas can deliver 70% of the gas's wellhead energy into the car's compressed-hydrogen tank. That "meager" conversion efficiency is then more than offset by an advanced fuel-cell drivesystem's superior 60% efficiency in converting that hydrogen energy into traction, for an overall well-to-wheels efficiency of 42%. That's three times higher than the normal gasoline-engine car's, or 1.5 times higher than the gasoline-hybrid-electric car's.<sup>4</sup> This helps explain why most automakers see today's gasoline-hybrid cars as a stepping-stone to their ultimate goal — direct-hydrogen fuel-cell cars.

In competitive electricity markets, it may even make good economic sense to use hydrogen as an electricity storage medium. True, the overall round-trip efficiency of using electricity to split water, making hydrogen, storing it, and then converting it back into electricity in a fuel cell is relatively low at about 45% (after 25% electrolyzer losses and 40% fuel-cell losses) plus any by-product heat recaptured from both units for space-conditioning or water heating. But this can still be worthwhile because it uses power from an efficient baseload plant (perhaps even a combined-cycle plant converting 50–60% of its fuel to electricity) to displace a very inefficient peaking power plant (a simple-cycle gas turbine or engine-generator, often only 15–20% efficient).

This peak-shaving value is reflected in the marketplace. When the cost of peak power for the top 50–150 hours a year is \$600–900/MWh, typically 30–40 times the cost of baseload power (~\$20/MWh), the economics of storage become quite interesting. Distributed generation provides not only energy and peak capacity, but also ancillary services and deferral of grid upgrades. Hydrogen storage can also save power-plant fuel by permitting more flexible operation of the utility system with fuller utilization of intermittent sources like wind. Once all the distributed benefits are accounted for, using hydrogen for peak storage may be worthwhile, particularly in cities with transmission constraints (such as Los Angeles, San Francisco, Chicago, New York City, and Long Island). Such applications may be able to justify capital costs upwards of \$4,000/kW. Another attractive use of large-scale hydrogen storage would be in places like New Zealand or Brazil, whose hydroelectric systems have too little storage (12 weeks in NZ) to provide resilience against drought — but whose snowmelt or rainy seasons provide cheap surplus hydropower that could be stored as hydrogen, even in old gas-fields.

forming gasified biomass in a high-temperature molten carbonate fuel cell, which needs no reformer, looks economically promising, even though reforming the biomass into hydrogen would be only about 60–65% efficient — worse than for reforming natural gas.<sup>48</sup>

*Myth #4. Delivering hydrogen to users would consume most of the energy it contains.*

Two Swiss scientists recently analyzed the energy needed to compress or liquefy, store, pipeline, and truck hydrogen.<sup>5</sup> Although one can quibble with details, their net-energy figures are basically correct — but not their widely quoted conclusion that because hydrogen is so light, “its physical properties are incompatible with the requirements of the energy market. Production, packaging, storage, transfer and delivery of the gas...are so energy consuming that alternatives should be considered.” In fact, their paper simply catalogues certain hydrogen processes that most in the industry have *already* rejected, except in special niche markets, because they’re too costly, including: pipelines many thousands of kilometers long, liquid-hydrogen systems<sup>49</sup> (except for rockets and aircraft<sup>50</sup>), and delivery in steel trucks weighing more than 100 times as much as the hydrogen carried. This argument serves the business interests of its publisher, the Methanol Institute, which promotes methanol over hydrogen, but it does not present a balanced view of how the hydrogen industry is actually evolving.

The Swiss authors focus almost exclusively on the costliest production method — electrolysis. They admit that reforming fossil fuel is much cheaper, but they reject it because, they claim, it releases more CO<sub>2</sub> than simply burning the original hydrocarbon. This claim reflects the common error of overlooking the high efficiency of the last link in the chain — the fuel cell. For example, even under conservative assumptions about car design, a good reformer making hydrogen for a fuel-cell car releases about 40%<sup>12</sup> to 67%<sup>13</sup> less CO<sub>2</sub> per mile than burning hydrocarbon fuel in an otherwise identical gasoline-engine car. That’s because the fuel cell is 2–3 times more efficient than the internal-combustion engine, and methane has twice the hydrogen/carbon ratio of gasoline.<sup>51</sup> (It’s possible, with some difficulty, to reach contrary conclusions by making sufficiently peculiar design assumptions, and some U.S. studies have done so, but we should be comparing good designs, not bad ones.) Or consider fuel cells in buildings: a fuel cell fueled by a miniature natural-gas reformer will convert gas to delivered electricity more efficiently than a microturbine or a classical gas-fired power plant, and comparably to an engine generator or a combined-cycle power plant. It also offers highly efficient and convenient cogeneration opportunities (*i.e.*, reusing otherwise wasted heat) that the offsite power plants do not.

The Swiss authors’ third distortion is to analyze only centralized ways to make hydrogen, requiring costly and energy-intensive delivery to customers — the source of most of their criticisms. Partly for that very reason, industry strategists, and the profitable hydrogen transition strategy published by RMI<sup>52</sup> (see sidebar), instead suggest — at least for the next couple of decades — *decentralized* production at or near the customer, using natural gas and electricity that, unlike hydrogen, are *already* being distributed to most customers. Decentralized natural-gas reformers would normally pay a higher price for natural than the big industrial reformers that now produce almost all industrial hydrogen<sup>53</sup>, yet the small reformers can usually *deliver* hydrogen

### Box 1: RMI's suggested hydrogen transition strategy<sup>55</sup>...

- starts with decentralized natural-gas reformers (or occasionally electrolyzers, chiefly at very small scale or where cheap power is available) in buildings (which use two-thirds of all electricity), where their ability to deliver premium power quality and reliability and to use byproduct heat for space-conditioning makes them cost-effective even at initially high fuel-cell costs — especially in areas with congested distribution grids;
- begins the deployment of hydrogen-fuel-cell cars with fleets that return to the depot for nightly refueling;
- then leases general-market hydrogen-fuel-cell cars to people who work in or near the buildings where fuel cells have by then been installed;
- uses the spare capacity of those buildings' hydrogen appliances (since they're sized for peak building loads that seldom occur) to make and store extra hydrogen, then sell it to fuel cars parked nearby, improving the economics of the fuel-cell system while also repaying most or all of the cars' cost of ownership by selling electricity and other services back to the electric grid when and where that's most valuable;
- as the hydrogen appliances made for buildings become cheaper, deploys them also outside buildings, e.g., in filling stations — using natural gas or electricity (whichever is cheaper), fueled by distribution capacity that's already built and paid for, to make hydrogen onsite with ~50–82% lower carbon emissions per mile<sup>56</sup> than today's gasoline cars; and
- ultimately expands hydrogen competition by adding hydrogen production from other renewable sources, as well as from cost-effective climate-safe gas, oil, or coal conversion in more centralized plants that can separate and safely store ("sequester") the carbon. This greater supply diversity, where justified, completes the gradual, largely self-financing transition from a high-carbon to a low-carbon ("low-carbs") to a no-carbon ("no-carbs") energy system — perhaps the ultimate Atkins diet for the planet.

In the long run, if central hydrogen production does make sense, mainly to simplify carbon sequestration and thus protect the climate,<sup>57</sup> this would generally be done not thousands of kilometers away,<sup>58</sup> but near cities — for example, at existing oil refineries, which could turn into merchant hydrogen plants.<sup>59</sup> If it proved necessary to pipe the separated CO<sub>2</sub> to a remote site for disposal, that's OK: even over very long distances, it's much cheaper to pipe the CO<sub>2</sub> than the hydrogen. Moreover, where the output of a central-electric generator can produce competitive hydrogen, it'll typically cost far less to ship the electricity through existing offpeak transmission capacity than to make the hydrogen at the big power plant and then pipeline it to customers.

*Myth #5. Hydrogen can't be distributed in existing pipelines, requiring costly new ones.*

If remote, centralized production of hydrogen eventually *did* prove competitive or necessary, as this myth assumes, then existing gas transmission pipelines could generally be converted to hydrogen service, e.g. by adding polymer-composite liners, similar to those now used to renovate

ried pipelines could safely carry a mixture of hydrogen and methane (“Hythane”<sup>67</sup>), up to a certain hydrogen fraction, to “stretch” their natural gas; users of fuel cells could perhaps then separate the two gases with special membranes. (The Dutch gas giant Gasunie is studying these options with a 62-member European consortium.) Some newer pipelines may already have hydrogen-ready alloys, valves, and seals. Others can be used to make all future pipelines hydrogen-compatible, as Japan intends for its major Siberia-China-Japan gas pipeline;<sup>68</sup> this shouldn’t cost extra.<sup>69</sup> Metallurgical issues with hydrogen can generally be avoided by using lower-carbon alloys, moderate and fairly steady pressures, and exterior composite wraps if needed for strength.<sup>62</sup> No special safety issues are expected in converting gas pipelines to hydrogen service; indeed, a 200-mile crude-oil pipeline has already been converted to hydrogen service.<sup>63</sup> New methods of making hydrogen pipelines, such as field pultrusion of composites, may prove attractive.

As for natural-gas distribution pipes, many older systems are already largely or wholly hydrogen-compatible because they were originally built for the “town gas” (synthetic coal-gas that’s ~50–60% hydrogen by volume) that used to be piped into homes in many of the world’s major cities, and still is in parts of China and South Africa. However, the burner-tips, meters, and other minor components could require retrofit.<sup>64</sup> Combustion appliances, unlike fuel cells, may not run much more efficiently with hydrogen than with natural gas, so they may deliver less service per unit of flow; this emphasizes the importance of using hydrogen where it offers a comparative advantage — as economics would also dictate.

*Myth #6. We don’t have practical ways to run cars on gaseous hydrogen, so cars must continue to use liquid fuels.*

Turning wheels with electric motors has well-known advantages of torque, ruggedness, reliability, simplicity, controllability, quietness, and low cost. Heavy and costly batteries have limited battery-powered electric cars to small niche markets, although the miniature lithium batteries now used in cellphones are severalfold better than the batteries used in electric cars. But California regulators’ initial focus on battery cars had a huge societal value because it greatly advanced electric drivesystems. The only question is where to get the electricity. Hybrid-electric cars now on the market from Honda and Toyota, and soon from virtually all automakers, make the electricity with onboard engine-generators, or recover it from braking. These “hybrid-electric” designs provide all the advantages of electric propulsion without the disadvantages of batteries. Still better will be fuel cells — the most efficient (~50–70% from hydrogen to direct-current electricity), clean, and reliable known way to make electricity from fuel. Nearly all significant automakers now have major fuel-cell car development programs.

Remember the high-school chemistry experiment of electrolysis — splitting water with an electric current and making hydrogen and oxygen bubble out of the test-tube? Fuel cells reverse this process by chemically recombining hydrogen and oxygen on a special membrane, at temperatures as low as 160–190°F (much higher in some types). This electrochemical reaction, with no combustion, produces electricity, pure hot water suitable for a coffee machine in the dashboard, byproduct heat suitable for heating or cooling the vehicle, and nothing else. Invented in 1839,

power sources for portable electronics and home appliances (such as hand tools and vacuum cleaners), due to market by 2004–05.<sup>55</sup> Fuel cells are already competitive for buildings when installed in the right place and used in the right way.<sup>56</sup> So are certain industrial niche markets.<sup>57</sup>

In the past decade, breakthroughs in materials and manufacturing engineering have reduced the need for precious-metal catalysts (especially when using pure hydrogen) by more than 20-fold,<sup>58</sup> and have raised the power density and cut the cost of the most common type of fuel cell<sup>59</sup> by 10-fold.<sup>70</sup> Continuing advances in both the fuel-cell “stack” and the other components in the fuel-cell system now make it realistic to expect fuel cells to start competing with grid electricity in general use (*i.e.*, at about \$500–800/kW if no distributed benefits are counted<sup>71</sup>) within this decade, and even with internal-combustion engines by around 2010 in carefully integrated vehicle designs needing ~\$100–300/kW.<sup>72</sup>

In the next few years, more durable membranes and manufacturable designs are widely expected to permit rapidly expanding mass production of fuel cells for both vehicles and buildings. Once those innovation triggers have occurred, then as for most other manufactured goods, real cost should fall by ~20–30%<sup>73</sup> for each doubling of cumulative production until limited by the cost of the basic materials. In very high volumes, the projected production cost of a low-temperature fuel-cell stack can ultimately reach on the order of \$30–60/kW, not far from the ~\$20/kW cost of generator-equipped internal-combustion engines, which have been refined for more than a century and are produced in enormous volumes.<sup>74</sup> RMI’s integrated transition strategy (sidebar, Myth #4) is indifferent to whether fuel cells first become durable, as buildings need, or cheap, as vehicles need: if they become durable first, enough can be made for buildings — which use two-thirds of U.S. electricity — to make them cheap enough for vehicles, while if they first become cheap enough for vehicles, they can also be used in buildings and renovated or replaced as needed. Either way, each market accelerates the other by building production volume, cutting cost, and creating profitable linkages.

Fuel-cell testing for vehicles is well advanced. As of mid-2003, manufacturers have tens of fuel-cell buses and upwards of 100 fuel-cell cars on the road: an authoritative German compilation<sup>75</sup> lists 156 kinds of fuel-cell concept cars and 68 demonstration hydrogen filling stations. Honda and Toyota are leasing small numbers of fuel-cell cars in California; six other automakers plan to follow suit during 2003–05 and at least ten more by 2010. Many kinds of military vehicles for land and sea are testing fuel cells, long used in submarines. So are some heavy trucks, which spend up to half their engine runtime idling because they have no auxiliary power unit (the corresponding figure for Abrams tanks exceeds 60–80%). Fedex and UPS reportedly plan to introduce fuel-cell trucks by 2008. Many applications are being pursued for scooters, recreational vehicles, boats, and even large ships. All these developments will learn from each other. Collectively they will increase fuel-cell production volume and hence reduce cost. A Deutsche Shell director predicted in 2000 that half of all new cars and a fifth of the car fleet will run on hydrogen by 2010, while the German Transport Minister forecast 10% of new German cars.

Some automakers formerly assumed that they must extract hydrogen from gasoline (or methanol) aboard cars, using portable reformers, for either or both of two reasons:

It would be too hard, slow, or costly to replace today's gasoline fueling infrastructure with a new hydrogen fueling infrastructure. Moreover, there's an obvious chicken-and-egg problem: you wouldn't want to build a filling station with no cars to buy its hydrogen, nor buy a hydrogen car with nowhere to refuel it.

As noted in Myths #5, 9, and 10, both of these problems have now been solved, so few automakers still favor onboard gasoline reformers. That's good, because those reformers are very difficult and problematic (e.g., in their startup times), and would cut gasoline-tank-to-wheels efficiency to or below that of a good gasoline-engine car. Since almost all automakers now agree that reformers should be at or near the filling station, not aboard the car, there's no longer any reason to reform gasoline: natural gas is much cheaper, and is easier to reform. Hydrogen will thus displace gasoline altogether, saving the energy, money, and hydrogen now used to make it (Myth #11).

Similar arguments apply to methanol. This hydrogen-rich liquid, typically made from natural gas, is easier to distribute, store, and reform than gasoline, and can be used directly in some kinds of fuel cells that could be attractive for household appliances and tools, or for such portable electronics as computers, cellphones, hearing aids, or individual military equipment. However, methanol is less attractive than direct hydrogen as a vehicular fuel, because it has a higher lifecycle cost,<sup>76</sup> higher carbon releases, and considerable toxicity (2–7% methanol in a liter of water, with which it mixes readily, is too little to taste, but could be lethal if swallowed). The transportation industry already faces heavy costs from having invested to switch to the methanol-derived but far less toxic gasoline oxygenate additive MTBE (methyl *tert*-butyl ether), only to find it banned after it leaked from underground storage tanks into groundwater.<sup>77</sup> This unhappy experience makes the industry understandably wary of methanol, and several major oil companies have made clear that they reject methanol deployment. Except for the kinds of special uses mentioned above, or countries with poor or very costly natural-gas distribution, it's also unclear why one would wish to turn natural gas into methanol, move it to another site, and there reform it into hydrogen, rather than just transporting the natural gas in the existing gas grid to the point of hydrogen use and reforming it there. In gas-short countries, many other liquid feedstocks, such as medium and heavy oils, dimethyl ether, LPG, and vegetable oils will also compete with methanol as distributed reformer feedstocks.

*Myth #7. We lack a safe and affordable way to store hydrogen in cars.*

This problem was solved several years ago. Such firms as Quantum (partly owned by GM) and Dynetek now sell filament-wound carbon-fiber tanks lined with an aluminized polyester bladder instead of the traditional solid metal liner (cutting weight by half and materials cost by a third). Such carbon tanks have ~9–13 times the performance of an aluminum or steel tank, but can't corrode and are extremely rugged and safe, unscathed by crashes that flatten steel cars and shred gasoline tanks. The car isn't driving around with highly pressurized hydrogen pipes, either, because the hydrogen is throttled to the fuel cell's low pressure before it leaves the tank. Such aerospace-style tanks holding up to 700 bar (~10,000 psi) and proven over 1,655 bar (~24,000 psi) have been tested by GM and others in fuel-cell cars and are legally approved in Germany; U.S.



Such carbon-fiber tanks could be mass-produced for just a few hundred dollars, and at the currently U.S.-approved safety factor of 2.25, they can hold ~11–12% hydrogen by mass. A 350-bar hydrogen tank (2.7 MJ/L at LHV and 300 K) is nearly ten times the size of a gasoline tank for the same energy content. However, the 2–3-fold efficiency advantage of the fuel cell, *i.e.*, less energy expended per mile, compared to a gasoline engine reduces this enlargement to ~3.2–4.8-fold — even less when you include the saved size and weight of other parts of the car that are no longer needed, such as the catalytic converter.

That factor shrinks still further — making the hydrogen tank only modestly bigger than a same-range gasoline tank in today's cars, but far lighter — when cars are designed to use two-thirds less power to move them, hence two-thirds less stored hydrogen for the same driving range. This requires cars with much lower aerodynamic drag, rolling resistance (energy losses to heating tires and road), and especially weight. Their weight can be halved, yet they can maintain superior crash safety even when hitting a heavy metal car, by making them from carbon-fiber composites. These space-age materials can absorb up to five times as much crash energy per pound as steel, and can crush more smoothly, using the crush length up to twice as effectively.

Carbon-fiber racecars are expensively handmade, but a new patent-pending manufacturing process<sup>9</sup> is expected to be affordable at automotive volumes (~10,000–100,000 cars per year). In 2000, its developer, Hypercar, Inc. — a technology development firm spun off from Rocky Mountain Institute in 1999 to commercialize lightweight and efficient vehicle technology — designed an ultralight concept car called the *Revolution* (see sidebar) to illustrate the implications of ultralight autobodies and highly integrated design. This conceptual midsize SUV would have the size, safety, comfort, and performance of a Lexus *RX300*, yet with five times its efficiency — a modeled average of 99 mpg equivalent.<sup>10</sup> Detailed production cost analysis suggests that such a concept car could be manufactured at mid-volume (~50,000/year) at a cost competitive with comparable-class vehicles in today's market.

### Box 2: An example of a hydrogen-ready concept car



In November 2000, Hypercar, Inc. ([www.hypercar.com](http://www.hypercar.com)) completed the virtual design and physical full-scale show-car construction (at left, with illustrative crossover design and "active outdoor lifestyle" styling) of its first concept car, the *Revolution*, representing one of many possible variants of a flexible, scalable platform. It is also production-costed and manufacturable. Developed on schedule and within budget, it met all its ambitious performance targets (below), which no established automaker has yet met in a single vehicle. The development effort was far faster and cheaper than industry norms. The design team also made encouraging progress in developing the vehicle's systems and subsystems, advancing solutions for composite-body manufacturing, and incorporating cost-effective proprietary manufacturing techniques to be validated in work currently underway.

- Comfortably seats 5 adults; 69 ft<sup>3</sup> / 1.96 m<sup>3</sup> cargo with rear seats folded flat; flexible interior packaging
- 99 mpg-equivalent (EPA 115 city, 84 highway) (2.38 L/100 km, 42 km/L) with compressed H<sub>2</sub> running a 35-kW, fuel cell buffeted by 35 kW<sub>e</sub> of NiMH storage — 5× Lexus RX300 efficiency
- Goes 55 mph on just the power used by a normal car's air conditioner; its own air conditioner needs only 1/5 that much power
- 0–62 mph (0–100 km/h) in 8.3 s; all-wheel digital traction control, responding far faster than today's ABS
- 330-mile / 530-km range on 7.5 lb / 3.4 kg of hydrogen safely stored in commercial 5-ksi (350-bar) tanks
- Efficient packaging — 6% shorter overall and 10% lower than a similarly spacious 2000 Ford Explorer
- 47% of RX300's curb mass (1,889 lb / 857 kg), but carries a similar load (1,014 lb / 460 kg), even up a 44% grade
- Low aerodynamic drag;  $C_dA = 0.26 \times 2.38 = 0.62 \text{ m}^2$  ( $C_d$  from supercomputer simulation, not wind-tunnel)
- Emits only clean hot water; doesn't harm the earth's climate if fueled with sustainably sourced hydrogen
- Ground clearance from 5" / 13 cm at highway speed to 7.8" / 20 cm off-road, with unique suspension control choices
- Excellent aerodynamics; low-rolling-resistance tires ( $r_0 = 0.0078$  on-road) can run flat for 125 miles (202 km) at 50 mph, requiring no spare
- Occupant safety cell undamaged in a 35-mph / 56 km/h simulated head-on wall crash—just replace the front end
- Designed to meet the Federal 30-mph / 48 km/h fixed-barrier occupant safety standard in a head-on collision with a vehicle twice its weight, each car moving at 30 mph (60-mph combined crash speed)
- Composite body doesn't dent, rust, or fatigue — bumpers bounce back unharmed from a 6-mph / 10 km/h collision
- Body ≥50% stiffer than a typical sports sedan (finite element analysis reported torsional stiffness of 38,490 Nm/deg, bending stiffness of 14,470 N/mm, first torsion mode of 62 Hz, and first bending mode of 93 Hz); this stiffness would be maintained by large-area adhesive bonding throughout the very long life of the vehicle, vs. metal autobodies' rapid loss of stiffness as spot-welds weaken or break
- Software-rich, open-architecture functionality offers numerous customization and upgrade paths
- Diagnostics, tune-ups, and upgrades performed via broadband wireless with many value-added options
- Highly redundant data systems and steer- and brake-by-wire controls increase safety
- Safety-enhancing, handicapped-friendly sidestick, sending the car in the direction in which you point it, automatically compensating for sidewinds, camber, and other outside influences; no hazardous steering column or pedals; safer driver airbag
- Very simple, intuitive driver display and controls; minimal driver distractions; automatic navigation to refueling sites
- Consistent with a 200,000-mile / 322,000-km warranty; lifetime brakes; repair shop visits should be rare

The platform combines uncompromised feature level and performance — a vehicle meeting and expanding expectations for functionality, esthetics, and environment — with strategically important advances in manufacturability, competitiveness, and profitability:

- Advanced-composite design and manufacturing processes tuned for new, affordable volume production methods
- No traditional body shop and no paint shop — traditional automotive assembly's two biggest costs
- A single worker can lift each body part unaided; body parts snap together in self-aligning, ultra-strong adhesive joints
- Far lower tooling and equipment cost, with modular manufacturing equipment investments phased as output grows
- Production-plant scale flexible downwards and modular upwards
- Potential for short product cycle times, supporting a diverse, agile, and rapidly evolving model portfolio
- Low breakeven volume and financial risk per model brought to market; more robust financial performance
- Financial risk/reward profile for manufacturers is therefore the opposite of the traditional car industry'

power-drag platform, two-thirds smaller fuel cell — should be broadly applicable to any other size and style of light vehicle. The two-thirds-smaller fuel cell would then become small enough to afford even at early prices — years earlier than would be possible with heavy, high-drag cars. Moreover, the two-thirds-smaller fuel tanks would become small enough to “package” (fit) conveniently, leaving plenty of room for people and cargo.

The *Revolution* would have a driving range of 330 miles with 137-L, 350-bar tanks holding 3.4 kg (7.5 lb) of hydrogen. That could be extended beyond 500 miles with the newer 700-bar tanks, which weigh and cost more and are slightly larger (because of their thicker walls) but hold two-thirds more hydrogen and are now assumed by many automakers. For comparison, 137 L (36 USgal) of gasoline would take an 18-mpg SUV like a 2000 Ford *Explorer* 650 miles, but not on one filling. Thus, depending on pressure, the 99-mpg *Revolution's* 5.5-fold efficiency advantage over the *Explorer* makes its compressed hydrogen fuel only ~1.2–1.9 times bulkier than gasoline for the same range, not 9.6 times (the energy-content ratio of gasoline to 350-bar hydrogen). The smaller, easier-to-package fuel-cell powertrain further narrows that difference, so the *Revolution's* interior spaciousness is comparable to the *Explorer's* even though the *Revolution* is 10% lower and 6% shorter. This illustrates how superefficient, clean-sheet, whole-vehicle design can overcome the supposedly unsolved problem of onboard hydrogen storage. The claim here is only of an illustration, an existence proof: there may be other equally elegant design solutions. But the point is that though inefficient cars have hydrogen storage problems, efficient cars needn't.

Research continues on other storage methods — liquid hydrogen at  $-253^{\circ}\text{C}$  or  $-423^{\circ}\text{F}$  (favored by BMW<sup>31</sup> but costly, complex, and rather energy-intensive), heavy- or light-metal hydrides (low- or ambient-pressure but costly, heavy, requiring heat for release, and storing only a few percent hydrogen by mass), metal-organic frameworks,<sup>32</sup> even carbon nanotubes (which can hold a lot of hydrogen but don't readily let it go). So far, none comes close to beating the commercially available high-pressure tanks in weight or cost, and there is no volume or safety reason not to use those tanks in efficient cars. Further R&D on hydrogen storage is thus desirable but not essential.

Automotive high-pressure hydrogen tanks are filled in a few minutes via a small-diameter but rugged hose with a securely locking metal fitting, similar to those used to refuel with compressed natural gas. The hydrogen gas simply flows from a prefilled storage tank that's typically at about one-fifth higher pressure, like the self-contained Air Products Hydrogen Fueler with its 427-bar storage. Hydrogen refueling may become automated: it's no more suitable than is gasoline for dispensing by careless people, although even in the event of a mishap, the consequences would probably be less grave than with gasoline (Myth #2).

*Myth #8. Compressing hydrogen for automotive storage tanks takes too much energy.*

Compressing hydrogen to fill tanks to 350 bar using standard 93–94%-efficient intercooled technology takes electricity equivalent to about 9–12% of the hydrogen's energy content. However, most of that compression energy can be recovered aboard the car by reducing the pressure back to what the fuel cell needs (~0.3–3 bar) not with a throttling valve but with a miniature turboex-

so using a 700- instead of a 350-bar tank adds only ~1–2 percentage points to the energy consumption, raising the compression energy from ~9–12% to ~10–13%. Modern electrolyzers are therefore often designed to produce 30-bar hydrogen, and some electrolyzers in advanced development yield 200 bar, at only a slight efficiency penalty. This can cut the compression energy required for filling a 350-bar tank by half or by three-fourths, respectively<sup>63</sup> — *i.e.*, to only ~3–6% of the hydrogen's energy content. Further advances are emerging from other technologies, *e.g.*, in nonmechanical compression, such as the electrically-driven membrane technology developed by Canada's National Research Council.

*Myth #9. Hydrogen is too expensive to compete with gasoline.*

Onsite miniature<sup>64</sup> reformers made in quantities of hundreds, each supporting a few hundred fuel-cell vehicles<sup>65</sup> and using natural gas priced at a robust \$5.69/GJ or \$6/MBTU,<sup>66</sup> could deliver hydrogen into cars at ~\$2.50/kg; with \$3.79/GJ (\$4/MBTU) natural gas, at ~\$2.14/kg. (Of that, the cost of compression to ~500 bar, 50 kg of onsite storage, and dispensing into the car totals about \$0.32/kg. All equipment is assumed to earn a 10%/y real aftertax return.)<sup>67</sup> For comparison, in cost per km for rather conventional fuel-cell cars nominally 2.2× as efficient as gasoline cars (both at LHV), U.S. untaxed wholesale gasoline at \$0.90/U.S. gallon or \$0.24/L is equivalent to \$2/kgH<sub>2</sub>; U.S. taxed retail gasoline at \$1.35/U.S. gallon (\$0.36/L), to \$3/kg H<sub>2</sub>.<sup>68</sup> (U.S. retail gasoline is cheaper than bottled water — which helps explain why many U.S. filling stations make more money selling soft drinks than gasoline.) Making more reformers would cut costs further. Relative prices differ in other countries — Europe and Japan, for example, typically pay more for natural gas — but they also tend to pay even higher gasoline prices, often equivalent to \$8/kg H<sub>2</sub> or more so miniature reformers should retain their advantage abroad.

That advantage comes largely from avoiding the cost of hydrogen delivery, because miniature reformers use the natural-gas distribution system that's already been built. BP, Ford, and Accenture,<sup>69</sup> among others, have confirmed that hydrogen from natural gas can compete with gasoline in cost per km. This comparison is robust: hydrogen made in 20- or 180-nominal-car-per-day natural-gas reformers would have remained competitive with retail and wholesale gasoline, respectively, at the actual average prices of U.S. natural gas and gasoline for the past 22 years.<sup>70</sup>

Splitting water with electricity can seldom make cheaper hydrogen than reforming natural gas unless the electricity is heavily subsidized, bought at very low offpeak prices (usually well under 2¢/kWh)<sup>71</sup>, or at very small scale (a neighborhood with a few dozen cars); that's why only a few percent of the world's hydrogen is now made electrolytically, powered mainly by old hydroelectric dams.<sup>72</sup> However, small-scale electrolyzers — now entering the market for demonstration and remote-location use — avoid the cost of hydrogen distribution from remote central plants, and in some circumstances they may compete with the decentralized gas reformers that offer the same advantage. Specifically, mass-produced (~1 million units) miniature electrolyzers, each serving a few to a few dozen cars, could produce hydrogen competitive with taxed U.S. gasoline even using 3¢/kWh offpeak electricity, so household-to-neighborhood scale could become a successful electrolysis niche market if enough units are made.<sup>73</sup> Yet such units, even initially using fossil-fueled electricity that might increase net carbon output per car (depending on the power

*a. Hydrogen pure enough for fuel cells would cost ~\$15–22/kg.*

Some analysts state, as does the Department of Energy's hydrogen program plan,<sup>12</sup> that "Fuel cells require hydrogen that is 99.999% pure, which today costs about \$15 to \$22 per kilogram" based on an assumed cost of about \$450,000 per 60 kg/d reformer (enough for about 12 rather inefficient cars) — a cost DOE wanted to halve by 2010. However, in mid-2003, DOE drafted a new and realistic goal of delivering \$1.50/kg hydrogen to cars by 2010.<sup>13</sup> This dramatic decrease is due partly to the realization that five-nines purity isn't necessary — even though technological innovators are increasingly reporting encouraging results with solid membranes (such as palladium-copper alloys) that can yield five-nines hydrogen at acceptable cost. A 112 kg/d (2,000 scf/h) reformer from H<sub>2</sub>Gen, serving 20 garden-variety fuel-cell vehicles per day with perfectly adequate 99.99%-pure hydrogen at 476 bar, is expected at modest production volumes to compete with wholesale gasoline, *i.e.*, at a hydrogen price roughly *one-tenth* of DOE's original target. Such reformers are expected to enter the market from several manufacturers long before 2010. Some authoritative sources consider 99.9% purity adequate for typical automotive fuel cells;<sup>14</sup> Japanese automakers typically design to their national industrial standard of only ~98.5% purity.

*Myth #10. We'd need to lace the country with ubiquitous hydrogen production, distribution, and delivery infrastructure before we could sell the first hydrogen car, but that's impractical and far too costly — probably hundreds of billions of dollars.*

RMI's hydrogen strategy,<sup>15</sup> summarized in an earlier sidebar (Myth #4), shows how to build up hydrogen supply and demand profitably at each step, starting now, by interlinking deployment of fuel cells in buildings and in hydrogen-ready vehicles, so each helps the other happen faster. Such linkage, introduced by RMI in 1999, was adopted in November 2001 by the U.S. Department of Energy<sup>12</sup> and is part of the business strategy of GM,<sup>16</sup> Shell,<sup>17</sup> and other major auto and energy companies.

Extensive studies by the main analyst for Ford Motor Company's hydrogen program indicates that a hydrogen fueling infrastructure based on miniature natural-gas reformers, including sustaining their natural-gas supply, will cost about \$600 per car *less* than sustaining the existing gasoline fueling infrastructure, thus saving about \$1 trillion worldwide over the next 40 years.<sup>18</sup> Thus, far from being too costly, a switch to hydrogen could well cost less than what we already do — largely because the needed investments tend to be smaller for gas than for oil, by an amount sufficient to pay for reforming natural gas into hydrogen and delivering the hydrogen into cars. In absolute terms, a filling-station-sized natural-gas reformer, compressor, and delivery equipment would cost about \$2–4 billion to install in an adequate fraction (10–20%) of the nation's nearly 180,000 filling stations.<sup>19</sup> Even a small (20 car/day) reformer would cost only about a tenth as much as a modern gasoline filling station costs (about \$1.5 million,<sup>2</sup> not counting the roughly threefold larger investment to produce and deliver the gasoline to its tanks — a far more capital-intensive enterprise than producing and delivering natural gas to a reformer at the same

While further analysis of these comparative investments is needed, it's encouraging that the head of Accenture's \$2-billion-a-year global energy practice (since promoted) estimates a \$280 billion U.S. investment in hydrogen fueling infrastructure, a surprisingly large \$130 billion of it to convert filling stations — 26 times the estimate by Shell's former head of Group Planning<sup>99</sup> — plus \$70 billion for natural-gas and ethanol supplies, \$40 billion to move fuel to filling stations, and \$40 billion for new pipelines. Her \$280 billion estimate seems high. Yet she believes it would be “in line with what major oil companies already spend on petroleum exploration and production” — and could displace \$200 billion in *annual* oil imports by 2020.<sup>100</sup>

*Myth #11. Manufacturing enough hydrogen to run a car fleet is a gargantuan and hugely expensive task.*

If all current global production of industrial hydrogen, about 50 million T/y, were fed into light vehicles about as efficient as the *Revolution* fuel-cell concept car described above (*i.e.*, quintupled-efficiency or “5η” for short), *it would displace two-thirds of today's entire worldwide consumption of gasoline.*<sup>101</sup> An estimated one-third of that hydrogen production is currently being used to *make* gasoline and diesel fuel,<sup>102</sup> the rest makes non-petroleum products. In the U.S., about half of all hydrogen is used by refineries, but highway-fuel consumption is also higher, so diverting all refinery consumption of hydrogen (~7 MT/y) into direct fuel for 5η light and 2η heavy vehicles would displace one-fourth of the gasoline (twice as much as comes from Persian Gulf oil), or one-seventh of the gasoline plus diesel fuel, used by all U.S. highway vehicles.<sup>105</sup> While making enough hydrogen to displace all U.S. highway vehicles' fuel is a significant undertaking, it looks reasonable in size and cost: it's comparable to the world's current total hydrogen production of ~50 MT/y, and just North and South Dakota have enough cost-effective wind-power potential to make that much hydrogen.<sup>104</sup> (Byproduct oxygen could valuably gasify dry biomass or coal to make even more hydrogen.) Nor is the conventional hydrogen industry standing still: world hydrogen production is growing about 6% per year (particularly to help desulfurize diesel fuel), corresponding to a doubling every 11 years. Having fuel-cell car usage grow fast enough to outrun a hydrogen industry that's capable of such massive, but routine and invisible, expansion is a problem we'd love to have.

*Myth #12. Since renewables are currently too costly, hydrogen would have to be made from fossil fuels or nuclear energy.*

Hydrogen would indeed be made in the short run, as it is now, mainly from natural gas (particularly in North America), but when the hydrogen is used in fuel cells, total carbon emissions per mile would be cut by about half using ordinary cars, or by ~80+% using 5η vehicles.<sup>106</sup> That's a lot better than likely carbon reductions without hydrogen, and is a sound interim step while zero-carbon ways to produce hydrogen are being deployed.

Natural-gas prices would have to rise astronomically before electricity priced at just the *running* costs of *existing* nuclear power plants, plus electricity or hydrogen delivery costs, could compete with gas reformers sited at or near filling stations.<sup>100</sup> If this did occur, it might be a constructive

liability is removed — whichever comes first.) However, since electricity is fungible and renewable plants are generally dispatched whenever available, any nuclear electricity used to make hydrogen would normally result in the displacement of that baseload generation into the increased operation of existing coal-fired plants, thus reversing any climate benefits from using the hydrogen. And, of course, nuclear power is not the only major way to expand U.S. electricity generation, let alone the fastest or cheapest way. U.S. installed nuclear power capacity now produces less total electricity than could cost-effectively come, for example, just from the ~400 GW of high-grade windpower potential on Tribal lands in the Dakotas.<sup>107</sup>

Long-term, large-scale choices for making hydrogen are not limited to costly renewables-or-nuclear electrolysis vs. carbon-releasing natural-gas reforming:

- Reformers<sup>108</sup> can use a wide range of biomass feedstocks which, if sustainably grown, don't harm the climate. Some can actually help the climate, such as reforming methane from anaerobic digestion of manure that would otherwise release methane (a greenhouse gas 23 times more potent per molecule than CO<sub>2</sub> over a 100-year horizon) into the air. In some cases, it may also make sense to gasify municipal wastes to make hydrogen.
- With biomass, waste, and fossil-fuel feedstocks, reformers can also be coupled with carbon sequestration. Since 1996, Statoil ASA, Norway's state oil company, has been reforming natural gas from a North Sea field and reinjecting 1 MT/y of separated CO<sub>2</sub> into the reservoir (also a common method of enhanced oil recovery). This promising method can yield three profit streams — from hydrogen, enhanced hydrocarbon recovery, and carbon sequestration. However, it is centralized and hence incurs hydrogen delivery costs.
- Another Norwegian firm, Aker Kværner Group ASA, is scaling up a plasma-arc process that separates hydrocarbons (typically natural gas or oil) into 48 mass percent hydrogen, 10% steam, and 40% carbon black, which can be used (for tiremaking, metallurgy, etc.) or simply stored in an inert or reducing atmosphere. No CO<sub>2</sub> is released, so this process, operating since 1992, can also be a backstop in case basic problems emerge with carbon sequestration.<sup>109</sup>
- Some experimental methods of sequestration, notably those that capture the carbon in blocks of artificial rock without requiring extra energy (the reaction releases rather than requires heat), may be capable of scaling down to serve decentralized reformers.

Nor is it generally true that electricity from renewable sources is uncompetitively costly, leaving no climate-safe source to run electrolysis except nuclear power. Florida Power & Light now sells the output of its 100-MW windfarms for 2.5¢/kWh (net of the 1.7¢/kWh production tax credit meant to offset the larger subsidies to fossil and nuclear power). That unsubsidized ~4.2¢/kWh busbar price is the cheapest new bulk power source known, emits no carbon, and is driving the 30–40%/y expansion of global windpower, which exceeded 31 billion watts by the end of 2002. Windpower has lately added more than twice the global capacity each year that nuclear power did in the 1990s.<sup>110</sup> Europe plans to get 22% of its electricity from renewable sources by 2010 — 2.4 times the 2002 U.S. fraction or the official 2010 U.S. forecast — and is investing €2.12

could approach ~5¢/kWh delivered in a decade or two — about competitive with the delivered cost of just *operating* existing nuclear plants, and ~2–3 times cheaper than new ones.

*a. A hydrogen economy would require the construction of many new coal and nuclear power stations (or perhaps nuclear fusion stations).*

This fear felt by many environmentalists is unfounded. New nuclear plants would deliver electricity at about 2–3 times the cost of new windpower,<sup>111</sup> 5–10 times that of new gas-fired cogeneration in industry and buildings, and 10–30+ times that of efficient use, so they won't be built, with or without a hydrogen transition. Any hydrogen produced from their electricity would be 4–7 times costlier in energy content, or about 2–3 times costlier per mile, than oil at the highest prices ever observed.<sup>112</sup> Further increasing nuclear power's cost disadvantage, often by as much as tenfold, are 207 "distributed benefits" of decentralized resources recently described by RMI.<sup>113</sup>

Under no conceivable circumstances would a market economy choose nuclear power. That's why it's dying of an incurable attack of market forces throughout the world, and why, reportedly, not a single investor showed up for its advocates' "nuclear revival" conference in Washington, DC on 11 September 2002. Proposed new types of nuclear fission (or fusion) plants would not change this conclusion, and would have other drawbacks, notably speeding the spread of nuclear-bomb-making materials. It is possible in principle to use nuclear heat rather than nuclear electricity to crack water to make hydrogen,<sup>114</sup> but this too can't compete with several other sources of high-temperature heat, including industrial byproduct heat and solar concentrators. And nuclear power is so slow to build that by the time new plants were licensed and built, renewable sources and other distributed resources would have completed their already rapid sweep of the market.

In short, electricity from today's cheapest sources is rarely competitive with natural gas for producing hydrogen. Nuclear electricity from existing plants, counting just their bare operating cost, is barely competitive with today's new gas-fired cogenerated electricity or windpower — even less so when hydrogen or electricity delivery costs are included — and doesn't even compete consistently with the operating cost of existing traditional fossil-fueled steam plants.<sup>115</sup> New nuclear plants are forever uneconomic; that's why the 2003 Senate energy bill includes \$15 billion in new Federal loan guarantees (at an implied cost so high that private investment in the other half is highly implausible). Nor is the needed amount of hydrogen production particularly large (Myth #11). Finally, fuel cells make electricity that would become yet another devastating competitor to new and even existing nuclear plants. The hydrogen future, long advocated by nuclear enthusiasts as the savior of their failed technology, is just another nail in its coffin.<sup>116</sup>

*b. A hydrogen economy would retard the adoption of renewable energy by competing for R&D budget, being misspent, and taking away future markets.*

This concern is partly prompted by allegations — probably unprovable either way — that the Department of Energy may have diverted funds that Congress voted for renewable energy R&D into fossil-fuel hydrogen programs. Such diversion would be illegal and unwise. A similar real-



other, and their diversity is inherently valuable, so we should do both, not sacrifice one for the other. Trading them off would be a sign of uninformed and therefore poor policy, not a demerit of hydrogen.

Hydrogen funds can be misspent. DOE has long been setting hydrogen goals that were already met; some encouraging signs are emerging that it may be starting to break this habit. Freedom-CAR could be a triumph or a bust for U.S. automaking, depending on how well it's executed; one can't yet tell which it'll be.<sup>118</sup> But again, the remedy for poor program design is to improve it, not to reject the whole concept. Happily, most of the investment in hydrogen, done right, will come from profit-seeking private-sector investments, not from tax dollars.

Hydrogen particularly favors clean, safe power sources over dirty, dangerous, and proliferative ones by creating two major new advantages for renewable sources of electricity:

- The 2–3-fold more efficient use of hydrogen than gasoline in the car means that at the wheels, the equivalent of \$1.25/gallon (\$0.33/liter) U.S. retail gasoline is electricity at about 9–14¢/kWh with a proton attached to each electron. Since electricity sells for only about 2¢/kWh in competitive U.S. wholesale markets, the proprietor of, say, a hydroelectric dam or windfarm can get a 4–8-fold better price (even more in higher-priced countries) by turning a raw commodity (electrons) into a value-added product (hydrogen) through electrolysis. Splitting the water and delivering the hydrogen will typically add far less cost than that higher price earns.
- A modest and cheap amount of local hydrogen storage can turn an intermittent source of electricity, such as wind or solar, into a firm dispatchable source that's far more valuable. (ICI in Britain has long stored very large amounts of hydrogen in underground caverns at up to 50-bar pressure without difficulty; Gaz de France has stored 50%-hydrogen town gas in large aquifers, as has the city of Kiel, Germany; and solution-mined salt caverns are known to be hydrogen-tight.<sup>119</sup> Helium storage in Texas rock strata beneath an aquifer offers another encouraging precedent.<sup>120</sup>) One of the world's leading experts on renewable energy, Professor Bent Sørensen of Roskilde University, notes that *all* of Denmark's energy — not just all of its electricity, a fifth of which now comes from wind — could be provided by windpower when lightly buffered with just two weeks of hydrogen storage, less than is now available in existing salt caverns. In larger countries, a considerable amount of hydrogen can be stored in the pipelines themselves ("linepack").

Both these features are especially valuable for renewables because of their flexible siting. Renewables also offer many other "distributed benefits" that can often increase their economic value by about tenfold.<sup>121</sup> But wouldn't nuclear power enjoy at least the first of the bulleted advantages? Yes. However, distributed alternatives and windpower cost even less than new nuclear plants, so they'd still win by a large margin — unless reforming natural gas beats them all.

Thus Assistant Secretary of Energy David Garman got it right when he wrote: "Over the long term, we want to make our hydrogen from sustainable, renewable energy, and that is where the majority of our hydrogen production R&D is focused."<sup>122</sup> But if environmental advocates persist

unch the hydrogen transition (even with modest carbon releases), until their carbon is sequestered or they are replaced by renewables, is far better than the status quo — bigger carbon releases and little progress on hydrogen. It is also far better for renewables than turning hydrogen from potentially a great accelerator of renewables into a hostage to their short-term competitiveness in hydrogen-making applications, which are typically more challenging than traditional direct uses for renewable energy sources.

*c. Switching from gasoline to hydrogen will worsen climate change unless we do a large amount of successful carbon sequestration.*

This might occur if we were naïve enough to burn coal in central power plants to make electricity to split water.<sup>124</sup> However, as explained above, that way of making hydrogen is clearly uneconomic even in existing coal-fired plants, which generally cost about 2–4¢/kWh to operate, plus an average of nearly 3¢/kWh to deliver the electricity to customers, or more to deliver centrally electrolyzed hydrogen. Reforming natural gas is far cheaper at any plausible price.

As mentioned in Myth #4, decentralized reformers do release CO<sub>2</sub>, but no more than half as much as now comes out your tailpipe, and plausibly 3–6 times less depending on how efficient the fuel-cell car is (assuming the same hydrogen content in the feed material). Until we internalize carbon costs, or natural gas becomes far costlier, or (most likely) renewable electricity gets cheaper, that's a good first step. Once any of those things happens, renewable electricity, or wellhead-reformed natural gas or oil with carbon sequestration, will gradually take over, and the hydrogen system's carbon emissions will head towards zero. This conclusion is clearest with, but does not depend on, a transition to renewable sources. As Princeton University's Carbon Mitigation Initiative has found, "if H<sub>2</sub> vehicles can be made competitive when the H<sub>2</sub> is produced from fossil fuels with CO<sub>2</sub> vented [as this paper argues], those vehicles would probably also be competitive with the CO<sub>2</sub> captured and stored."<sup>125</sup>

Illustrative numbers: a ~70–80%-efficient reformer feeding a ~50–70%-efficient fuel cell, both onsite, yields a combined efficiency, from retail natural gas to electricity, of ~35–56%, minus a few percent for gas compressor losses if not recovered, plus any recovered onsite byproduct heat that displaces fuels. Using natural gas instead to make electricity, net of grid losses, is about 49–54% efficient using a combined-cycle plant, or <20–30% using simple-cycle turbines or classical condensing power plants. But none of these choices offers the customer as good options for byproduct heat recovery as onsite hydrogen appliances and fuel cells do, so after doing that, the fuel-cell system can be anywhere from slightly more to far more efficient in avoiding fuel use and CO<sub>2</sub> emissions. (The CO<sub>2</sub> advantage might shift if cost-effective ways were developed to sequester carbon from centralized but not from distributed uses.)

*d. Making hydrogen from natural gas would quickly deplete our gas reserves.*

Natural gas is at least a 200-year global resource, has only about half the carbon content per unit energy of oil, is far more widely distributed than oil (including major gas reserves in North

ture-reformer efficiency -72%<sup>127</sup>) to run an entire year-2000 U.S. fleet of 5η light vehicles would take 20% of 2000 U.S. gas production.<sup>128</sup> More gas than that can be cost-effectively saved in the coming decades through efficiency improvements in buildings and industry.<sup>129</sup>

However, even without such gas savings, it is not obvious that switching light-vehicle fuel from oil-derived gasoline to natural-gas-derived hydrogen would increase the *net* consumption of natural gas significantly if at all. The sort of integrated hydrogen transition that RMI recommends,<sup>32</sup> and GM (among others) assumes, could even *decrease* net U.S. consumption of natural gas — by saving more gas in displaced power plants,<sup>130</sup> furnaces, and boilers, and in refineries to make gasoline than is made into hydrogen to displace gasoline. In other words, a well-designed hydrogen transition may reduce U.S. consumption of oil *and* natural gas *simultaneously*.

Conversely, anyone concerned about the views expressed at the June 2003 World Gas Conference about a U.S. trend toward greater domestic depletion and LNG import dependence should favor both the hydrogen transition — which would not materially burden gas reserves but could ultimately *save* natural gas by shifting hydrogen production to renewable sources or even carbon-sequestered coal — *and* efficient use of natural gas. Savings would emphasize coproduction of electricity and heat at all scales (U.S. power plants discard byproduct heat equivalent to 1.2× Japan's total primary energy use); thermally efficient buildings, hot-water systems, and industrial processes; and molecularly efficient materials cycles. For natural gas as for oil, the savings available from systematic thermal integration and end-use efficiency are huge and profitable, and can be vigorously pursued with or without a hydrogen transition. Two especially effective ways of saving North American natural gas in the short term would be to shave peak *electric* loads with efficiency, load management, and distributed generation<sup>51</sup> and to reward gas (and electric) distribution utilities for cutting customers' bills, not for selling more energy (as 48 states now do).

*Myth #13. Incumbent industries (e.g., oil and car companies) actually oppose hydrogen as a competitive threat, so their hydrogen development efforts are mere window-dressing.*

Nearly all significant car and oil companies have vigorous R&D programs to explore hydrogen, and many have made multi-billion-dollar investments in the hydrogen transition. They don't do this for amusement, they're deadly serious, and expect to make money on it. In general, oil and gas companies can make more profit in a hydrogen economy than they do now, mainly because:

- hydrogen is a premium energy carrier, fetching a far higher price because it can do more work;
- it's generally more profitable and less risky to invest in natural gas than in oil;
- increasingly, hydrogen made from renewable energy sources can reduce or eliminate price volatility, which is more of a risk and cost than an opportunity to capital-intensive suppliers, and raises their cost of capital accordingly;
- hydrogen can be made near the customer, avoiding the need for costly and complex distribution infrastructure without necessarily giving up opportunities to participate in large-scale aggregated markets for technology, financing, and hydrogen services; and

that is, hydrogen plus “negacarbon” — carbon that Kyoto traders will pay you not to emit — is typically worth more than hydrocarbon. But surprisingly, this conclusion may not depend on whether avoided carbon emissions are valued much or at all. For example, gasoline is sold to U.S. filling stations as a highly competitive commodity at an untaxed wholesale price around \$0.90/USgal, equivalent to \$0.24/L, \$6.83/GJ (HHV), or \$7.39/GJ (LHV). To compete with this gasoline in cost per mile for a 2η, 3η, or 5η light vehicle, hydrogen (LHV) could bear a delivered untaxed price at the filling station of about \$1.77, \$2.66, or \$4.43 per kg, respectively. Yet the actual total cost of producing such hydrogen from \$3.79/GJ (HHV) natural gas — compressed, stored, and ready for dispensing into fuel-cell cars — is around \$2.1/kg if miniature gas reformers are produced in reasonable numbers (Myth #9).<sup>133</sup> Thus with a fuel-car whose platform physics are only somewhat more efficient than in today’s gasoline-engine cars (*i.e.*, 3η rather than a Hypercar<sup>®</sup>-level 5η), the potential retail markup of the hydrogen suggests that making even oil-based hydrocarbons into hydrogen, using existing and very competitive logistics for delivering liquid fuels to filling stations, might still undercut directly used gasoline because of hydrogen’s more efficient end-use. In contrast, at a reasonable Kyoto trading price of, say, \$20/TC, carbon emissions avoided by displacing gasoline are worth only ~\$0.04/USgal — a few percent of the gasoline’s retail price. Thus the hydrogen’s efficient conversion to vehicular motion, not its climate-safety, is its main source of competitive advantage.

In practice, reforming delivered natural gas at the filling station is almost certainly cheaper than reforming oil-based products there, but the point of this illustration is rather that efficiently used hydrogen is far more valuable than cheap but inefficiently used gasoline. This suggests that if the cost of delivering hydrogen from relatively large oil-reforming plants can compete with that of distributed natural-gas reforming, then we should be sending oil to reformers, not refineries.

Some analysts believe that in the next few decades, as methods of storing separated carbon cheaply and securely are proven, it will be cheaper still to extract hydrogen from coal, which contains less hydrogen than natural gas and is harder to handle, but is also far cheaper.<sup>134</sup> Some sequestration methods can also profitably reuse depleted oil and gas fields to store CO<sub>2</sub>, turning these into an unexpectedly valuable asset for hydrocarbon companies providing sequestration services to the emerging negacarbon market.

*Myth #14. A large-scale hydrogen economy would harm the Earth’s climate, water balance, or atmospheric chemistry.*

Water vapor does strengthen the warming effect of CO<sub>2</sub> by around 70%, and its climatic effects remain uncertain,<sup>135</sup> so this issue, like any other, must be carefully evaluated at the start of a proposed major shift in the energy system. Neglect of such prior technology assessment has proven very costly in the past. Fortunately, a sensibly designed hydrogen transition does not appear to present serious environmental issues if due attention is given to carbon releases.

*a. Using hydrogen would release or consume too much water.*

ceased water emission would require liquid-hydrogen-fueled aircraft to fly below the stratosphere to avoid adding excessive contrails to its very dry air.<sup>156</sup> However, at least for cars, more efficient design can more than offset the extra water production: 5η fuel-cell-powered light vehicles would emit only half the water per mile of today's gasoline-engine equivalents.

The *source* of the hydrogen matters too. If the hydrogen were made from natural gas, then the oxygen would already have been in the air and the hydrogen would have come from underground, just like the hydrogen in crude oil. Moreover, if the hydrogen were conventionally made in a steam reformer, then half the hydrogen would have come not from the methane but from the water; in this case, a 5η vehicle would emit only one-fourth as much *new* water per mile as its current gasoline-engine equivalent. And if the hydrogen were made by using electricity to split water, then all the water would already have been in the hydrologic cycle and would simply be returning to it. (The Department of Energy helpfully notes that "The hydrogen extracted from a gallon of water... could drive a hydrogen fuel cell vehicle as far as gasoline vehicles travel today on a gallon of gasoline."<sup>157</sup>)

The Earth's atmosphere averages about 2.6% water by volume. This 13 trillion metric tons of water, cycling about every nine days, has very complex effects on climate, but as the following discussion shows, any net water that a hydrogen economy would add does not appear to be of concern. Most importantly, the climate benefit of removing light vehicles' CO<sub>2</sub> from the climate threat vastly outweighs any possible climate effect of 5η vehicles' or stationary fuel cells' water emissions.<sup>158</sup> The same holds for water consumption to the extent that the hydrogen comes from electrolysis; and of course that water is then re-created in the fuel cell.

For further perspective, the global energy system emits about 20 billion metric tons of water per year, roughly half "new" water from burning the hydrogen in fossil fuels and half existing water evaporated from power-plant cooling towers.<sup>159</sup> This total is equivalent to about 0.0038% of the Earth's annual water evaporation, or to roughly 1.7% of the atmosphere's annual *increase* in water vapor as it is warmed, mainly by heat-trapping caused by the CO<sub>2</sub> released by burning fossil fuels. (*Relative* humidity remains constant, so when the atmosphere is heated, absolute humidity rises.) Thus a fuel-cell car whose climate-safe hydrogen source emitted no CO<sub>2</sub> would reduce the water vapor added to the atmosphere by CO<sub>2</sub>-induced warming by enormously more than it would directly add even in the worst case.

*b. Using hydrogen would consume too much oxygen.*

Regardless of the source of the hydrogen, its combination with oxygen in the fuel cell will not significantly change the atmosphere's content of oxygen, which is about 94 times as great as the amount of oxygen in atmospheric water. Burning fossil fuel combines oxygen with previously underground fossil carbon to form CO<sub>2</sub>, of which roughly half is absorbed by the oceans, ultimately forming submarine rocks that remove the oxygen more or less permanently from the atmosphere. In contrast, hydrogen derived from fossil hydrocarbons releases less or no net CO<sub>2</sub>.

Taking the opposite tack, one imaginative correspondent initially suggested a “fatal flaw in the hydrogen economy”: a *reduction* in the planet’s water inventory, because molecular hydrogen will inevitably be lost to outer space as hydrogen leaks (to an extent that he expects to exceed the claimed 5–10% loss of natural gas) or is incompletely combusted.<sup>140</sup> But this does not seem a realistic concern, because, as that author now accepts:

- Molecular hydrogen is reactive enough that all but about 0.04% of its current additions to the atmosphere (which total roughly 0.5% of the atmospheric inventory, or a million tons a year, nearly all from human activities) recombines chemically within the atmosphere, rather than escaping to outer space.<sup>141</sup>
- As is routinely done in today’s large hydrogen industry, hydrogen leaks will be kept very small for both economic and safety reasons — smaller than current natural-gas leaks, which worldwide are around 1% and falling, but in well-run systems in industrial countries are around 0.1–0.5%.<sup>142</sup> For example, in Germany in the mid-1990s, the natural-gas system leaked 0.7%, but the hydrogen system leaked only 0.1%:<sup>143</sup> precisely because hydrogen escapes more easily, the hydrogen industry avoids leak-prone compression and threaded fittings commonly used for natural gas.
- Switching from today’s fossil-fuel economy to an all-hydrogen economy with a 1% leakage rate would release about as much molecular hydrogen as is now released by fossil-fuel combustion, so as a first approximation, nothing would change.<sup>144</sup>
- For economic reasons, most hydrogen will long be made from fossil fuel, so all of it (or half of it if steam-reformed) will come out of the ground, not out of the contemporary atmosphere.
- Our planet’s water supply is also being continually topped up. Every few seconds, small comets drizzle a house-sized, ~20–40 ton lump of snow into the upper atmosphere.<sup>145</sup> This mechanism, adding about an inch of water to the Earth’s surface every 20,000 years, is enough to account for the planetary ocean. It would exceed by at least hundreds of times any plausible water loss from even a very large and leaky hydrogen economy.<sup>146</sup>

d. Using hydrogen would harm the ozone layer or the climate by leaking too much water-forming and chemically reactive molecular hydrogen into the upper atmosphere.

A final climate-/atmospheric-science myth was instantly created and intensively publicized worldwide after the respected journal *Science* embarrassingly published in June 2003 a paper that should not have passed peer review.<sup>147</sup> *CNN Headline News*, for example, aired half-hourly reports of the “dark cloud” of environmental risk just discovered to be hanging over those supposedly clean hydrogen fuel-cell cars. The *Science* paper projected that molecular hydrogen releases into the atmosphere could be ~4–8-fold higher in a hydrogen economy than in today’s fossil-fuel economy, and that this could cause a variety of problems with climatic stability and the protective ozone layer in the stratosphere, ranging from hydroxyl-radical chemistry to stratospheric cloud formation and disturbance of high-altitude photochemistry. Assuming that the

10–20% of today’s 50 MT/y hydrogen production, then the total hydrogen releases caused by human activity, which the authors say are  $15 \pm 10$  MT/y — all previously believed to come from incomplete combustion and methane emissions of fossil fuels and biomass — would instead be roughly one-third to two-thirds due to leaks of industrial hydrogen. No such source term has been observed, and any hydrogen industry that leaked so badly would have serious problems of both safety and profitability.

How did the CalTech authors arrive at their assumption of 10–20% hydrogen leakage? They simply misread both of their references. The first<sup>149</sup>, which clearly stated that the German hydrogen system loses 0.1% of its throughput, also offered as an example that a completely hydrogen-based global economy leaking 2–3% (and using no direct renewable energy) would emit about as much hydrogen as the fossil-fuel system emits now. A worst-case example was also presented that assumed 10% leakage for the sake of argument, although though it stated that 2–3% was more reasonable. The CalTech authors read all this to mean that the paper had “reasonably projected” a 10% leakage rate. They then claimed that “Losses during current commercial transport of H<sub>2</sub> are substantially greater than this, suggesting to us that a range of 10 to 20% should be expected.” Where did they get the idea that “current commercial H<sub>2</sub> transport” losses exceed 10%? Remarkably, from a paper that said nothing whatever about such losses.<sup>149</sup> Its only quantitative estimates were for the daily boiloff rates of *liquid* hydrogen in small shipping containers (cryogenic truck and rail tankers). In fact, liquid hydrogen is only 10<sup>-3</sup> of the world hydrogen market, boiloff is usually burned or otherwise reused rather than released, and any serious volumes of liquid hydrogen would be delivered via pipelines or large marine vessels<sup>150</sup> rather than small trucks; but apparently the CalTech authors overlooked all that. Due to the high cost of making and delivering liquid hydrogen, now used largely for space rockets, it will probably never compete economically in significant markets except aircraft, where hydrogen losses would be very low and hydrogen usage would be less than a tenth of the total market.<sup>151</sup>

Prior technology assessment is useful, indeed essential; this is simply not a good example of it. The CalTech authors concluded that, whatever its potential climate advantages from reduced CO<sub>2</sub> and other emissions, hydrogen leakage from a global hydrogen economy could considerably increase the risk to stratospheric dryness and photochemistry. This is incorrect because:

- They grossly overstated the hydrogen leak rates: instead of their assumed 10–20%, a more plausible estimate is at worst 1–2 percent, more likely a few *tenths* of a percent or less.<sup>152</sup> The authors do agree that hydrogen “emissions could be limited or made negligible, though at some cost,” and no doubt the furore over their paper will help to focus attention on this issue, but they seem unaware that the hydrogen industry already achieves extremely low leakage as part of its normal operating practice and at modest cost, simply as a prudent strategy for public and asset protection.
- They didn’t credit hydrogen for its greater end-use efficiency, enabling less hydrogen to deliver more service than can the fossil fuels it displaces.
- They didn’t credit a hydrogen economy for reducing or eliminating most of the present causes of hydrogen emissions, which originate in fossil fuel and biomass usage. (Direct

Altogether, these factors would make a soundly designed hydrogen economy *reduce* current releases of hydrogen by one or perhaps two orders of magnitude, to a level well below natural hydrogen releases.<sup>15</sup> Thanks to the authors' and journal's carelessness, much research will now be done to ensure this outcome, which was highly likely anyhow, and many hydrogen advocates will spend as much time debunking this new myth as they already spend rebutting older ones like the *Hindenburg* (Myth #2).

*Myth #15. There are more attractive ways to provide sustainable mobility than adopting hydrogen.*

In general, the best way to get access to where you want to be is to be there already, via sensible land-use (spatial planning or its market equivalent — American communities would have a lot less sprawl if their governments at all levels didn't mandate and subsidize it). The next best way is "virtual mobility" — move just the electrons and leave the heavy nuclei at home. The third best way is to have real competition, at honest prices, between all modes of travel and of not needing it. For physical mobility, hydrogen offers distinctive environmental, security, and (if done right) economic advantages, but these advantages should supplement, not supplant, an integrated policy framework for equitable access.

*a. We should run cars on natural gas, not hydrogen.*

Some authors say it's cheaper and better to fuel a car engine with compressed natural gas than to carry the natural gas aboard the car, reform it into hydrogen onboard, and feed it into a fuel cell. That may be true, at least until fuel cells become quite inexpensive. But it's generally not true when you take the reformer out of the car, where it has an asset utilization around 0.6%, and put it in a filling station where it can be highly utilized and needn't be carried around. In other words, if you're powering a car with fuel cells, you should carry only the hydrogen aboard, using safe modern tanks (Myth #7), not a hydrocarbon fuel and a reformer to process it into hydrogen.

Cars fueled with compressed natural gas or LPG have become quite popular in fleet markets and with some customers (especially government fleets, which must meet an alternative-fuels mandate) and in some countries (such as India and China, where conversions are cutting urban air pollution). They usually lower fuel and maintenance costs significantly and cut smog, but don't compromise safety. It's reasonable to suppose that hydrogen fuel cells, which provide all these advantages to an even greater degree, should win even more market support.

*b. We should convert existing cars to carry both gasoline and hydrogen, burning both in their existing internal-combustion engines, to create an early hydrogen market and reduce oil dependence and urban air pollution.*

A hydrogen-optimized internal-combustion engine can be ~30–50% more efficient than today's gasoline engines — *i.e.*, about as efficient as a diesel engine, but much cleaner. BMW even hopes to raise the peak fuel-to-output-shaft efficiency of new hydrogen internal-combustion en-



Without using such a big hydrogen tank as to leave insufficient space for people and cargo. If the idea is to use gasoline for range and hydrogen for city-center driving (where clean air is more valuable), it's probably cheaper and easier to scrap the dirty old cars and replace them with super-efficient ones, such as existing hybrids that also have ultra-low emissions running just on gasoline. The early hydrogen market can best be created not in dual-fueled cars, which could give hydrogen a reputation for short driving range, but rather in buildings. There, ultra-reliable and digital-quality fuel-cell power, the reuse of "waste" heat for heating and cooling, and competing with delivered electricity (a very costly form of energy<sup>154</sup>) can make even today's costly handmade fuel cells cost-effective today if properly sited and used.<sup>155</sup> Hydrogen will be better accepted if hydrogen vehicles are uncompromised from the start.

However, it may be possible to provide tolerable interim results with a hydrogen-fueled internal-combustion-engine *hybrid* car by combining the efficiency gains of the hydrogen fueling with those of the hybrid-electric powertrain, as in Ford's 2003 "Model U."<sup>156</sup> That concept car is nearly 1.7× more efficient than its gasoline-fueled base model, with less than half the improvement coming from greater engine efficiency. Its 700-bar H<sub>2</sub> tanks are >4× bulkier than a same-range gasoline tank.<sup>157</sup> Such a vehicle therefore can't be as spacious as an equivalent fuel-cell car, but it could be significantly cheaper. One estimate at 20,000-unit production volume suggests ~\$800–1,200 incremental cost for hydrogen-fueled internal-combustion-engine cars, or about \$1,000–1,200 less than for 300,000-unit fuel-cell car production<sup>158</sup> — a difference that the fuel-cell vehicle's hydrogen savings would repay in 3–4 years from. For the same (300,000-unit) initial production volumes, the fuel cell car's incremental cost would drop to ~\$480,<sup>159</sup> paying back in less than a year and a half. Such a first-cost advantage for the H<sub>2</sub>-fueled engine hybrid is hardly compelling, and its lower fuel economy would make its fuel cost per km comparable to that of U.S. gasoline (~\$0.36/L),<sup>160</sup> rather than less in the more efficient fuel-cell car. However, hydrogen-fueled engine-hybrid cars could temporarily help to hold a place for hydrogen in the market, and could achieve many of its major benefits to a large degree but sooner, while fuel cells are achieving mass production and low costs.<sup>161</sup> If such a car were also ultralight, that could help relieve its inherent design compromises, perhaps reducing the size penalty of the tanks from ~4× to ~2–3× (or taking part of the penalty in range), which may be acceptable for some markets. All these technologies should compete fairly, and big improvements may come in several successive steps. Even so, the ultralight-*plus*-fuel-cell platform's full benefits (Box 2, Myth #7), including the potential for such important value propositions as using parked cars as distributed electricity generators,<sup>162</sup> would certainly justify its relatively modest incremental cost.

*c. We should improve batteries and increase the required electricity storage capacity (battery-electric driving range) of hybrid cars.*

California has largely abandoned its mandate to introduce battery-electric cars because battery technology, as RMI predicted, was overtaken by hybrid technology, which will in turn be trumped by fuel cells. Battery-electric cars are a valid concept for niche markets, but (as Professor P.D. van der Koogh of the Delft University of Technology remarked) are "cars for carrying mainly batteries — but not very far and not very fast, or else they would have to carry even more

Regulators that, like the California Air Resources Board, have rewarded automakers for increasing the “zero-emission range” (battery capacity) of their hybrids are distorting car design in an undesirable direction, increasing the car’s weight and cost in a way that doesn’t well serve their strategic policy goals. However, such recent CARB concepts as requiring hybrids to have at least 8 kW of electric drive capacity and at least 60-volt traction motors are helpful, because they’ll force real hybrid technology, rather than rewarding just a routine shift to 42-volt electrical systems that permit the starter/alternator to provide a minor torque supplement.

*d. If we have superefficient vehicles, we should just run them on gasoline engines or engine-hybrids and not worry about hydrogen or fuel cells.*

It would indeed be feasible and attractive to put an internal-combustion engine or hybrid-electric powertrain, fueled by gasoline or compressed natural gas or LPG, into an ultralight, ultra-low-drag autobody. Transplanting a Honda *Insight*’s 1-liter gasoline engine and 10-kW electric “assist” motor into a 3 $\eta$  SUV (*i.e.*, one with tripled platform-physics efficiency like the *Revolution* concept car<sup>163</sup>) would make quite an attractive vehicle, getting perhaps ~70 mpg (author’s estimate, not a formal simulation result) instead of ~100. However, once we do have such vehicles — nominally 3 $\eta$  if engine-driven, 4 $\eta$  if engine-hybrid-driven, 5 $\eta$  if fuel-cell-powered — on the road, *whatever* their fuel and powertrain, they will make *all* powertrains far cheaper by making them three times smaller and probably simpler. Which powertrains will then compete best when all become smaller? I think such competition will ultimately tend to favor fuel cells, because they scale down better, being inherently modular and probably having less fixed-cost “overhead” than engine-driven powertrains, with or without hybrid drive. Fuel cells also undoubtedly have more potential for maturation and simplification, and lower asymptotic costs at very high volume, than the internal-combustion engine, now highly mature after about a century of volume production. In the short term, scaled-down hybrids can offer excellent solutions for efficient platforms. But hybrids are not merely competitors to fuel cells; they will also pave the way for them by bringing all the other elements of electric traction, such as motors, power electronics, and buffer storage devices, to mature, high-volume, low-cost production. This will enable fuel cells to compete on their own merits as they too become cheaper, without being held back by ancillary system costs; and they will not suffer from the duplicative and complex systems used by most hybrids.

To see how integrative, superefficient vehicle design can accelerate hydrogen deployment, just reverse the logic. If we *don’t* have 3–5 $\eta$  vehicles, we’ll need fuel cells three times as big per car, requiring many more years of selling large numbers of fuel cells at a loss (or into niche markets) before production volumes bring down the cost enough to compete in cars. If we *do* have 3 $\eta$  platforms (ultralight, ultra-low-drag, highly integrated design), they will greatly accelerate market capture by hydrogen fuel cells and hence displacement of oil, which more and more people think would be a good idea and may be very profitable.<sup>164</sup> Even if hydrogen and fuel cells *didn’t* prove attractive, therefore, 3 $\eta$  platforms could still yield enormous oil-saving benefits for national security, economic prosperity, and the environment. It appears, therefore, that the hydro-

*Myth #16. Because the U.S. car fleet takes roughly 14 years to turn over, little can be done to change car technology in the short term.*

Gasoline-engine hybrid-electric cars, with about 150,000 on the road worldwide, currently command less than 1% of the U.S. car market, though far more in some localities. A fuel-frugal car (the two-seat Honda *Insight* can drive from Washington DC to Chicago on one 11-gallon tank of gasoline) looks even better in troubled times with spiking gasoline prices. But we needn't wait for normal fleet turnover to bring in such innovations, let alone fuel-cell cars. There is a large portfolio of policy options to accelerate fleet turnover. Perhaps the most attractive approach would be "feebates": buying a new car incurs a fee or earns a rebate, depending on its efficiency. The fees pay for the rebates. Ideally, the rebate for buying an efficient new car depends on the *difference* in efficiency between the new car you buy and the old car you scrap. The bounty received for scrapping a clunker could be unbundled from the new-car purchase, rewarding also the car owners who scrap but don't replace; either way, the government would offer you more for your gas-guzzler than you'd get for a normal trade-in because the clunker is worth more to society dead than alive. Detroit could also sell more cars, replacing the least efficient (and often dirtiest) ones prematurely scrapped — and yielding disproportionately big and fast benefits for air, oil, climate, jobs, and national security.

Feebates are not a new concept — the California legislature approved such a "Drive+" system by 7:1 in 1990, only to see it pocket-vetoed by Governor Deukmejian. Scrapage isn't novel either: both Unocal and the California Air Resources Board pay to get the most polluting cars off the road. Combining these two options holds promise of a win-win political outcome while greatly accelerating the turnover of the car stock; likewise for heavy vehicles and even more so for aircraft. RMI is exploring ways to structure these transactions so that poor people, far from being deprived of affordable used cars, could afford to buy efficient new cars that they could then afford to run.

Oil productivity (dollars of real GDP per barrel of oil consumed) has doubled since 1975, yet that remarkable achievement has barely scratched the surface of how much efficiency is available and worth buying. The last time the U.S. paid attention to oil productivity, during 1977–85, Detroit improved new cars' efficiency by 7.6 miles per gallon in seven years. GDP rose 27%, oil use fell 17%, Persian Gulf oil imports fell 87–91%, and the halving of OPEC's exports broke its pricing power for a decade. Today we could do the same again, in spades.

A dozen years ago, the U.S. spent \$61 billion to eject Iraq from Kuwait. Allies repaid all but \$7 billion, equivalent to what a \$1-per-barrel price hike costs Americans in less than a year. But for less than that \$7 billion, Americans could have saved more oil than we import from the Persian Gulf. Similarly today, for enormously less investment than those lately committed in that region, the U.S. could switch to a combination of efficiency and non-oil fuels, chiefly hydrogen, that can rely on inexhaustible domestic resources and can make oil forever irrelevant to American mobility. (See Myth #19 below.)

Under development since 1991, 3–5η vehicles could, in principle, enter production ramp-up as soon as 2007 with aggressive investment and licensing to manufacturers. Although the press frequently reports very long transition times as inevitable, and many in the auto industry understandably share that view, many experts feel the transition could be rather rapid. Accelerated-scrappage feebates (Myth #16) could turn over most or all of the U.S. car fleet in less than a decade. The handful of hydrogen refueling stations in Japan, Germany, and the United States could grow rapidly: Deutsche Shell has said hydrogen could be dispensed from all its German stations within two years if desired. However long the transition takes — which is matter of choice, not fate — it's better to start than not to, and we need to start quickly. The stakes are too high to dawdle.

*Myth #18. The hydrogen transition requires a big (say, \$100–300 billion) Federal crash program, on the lines of the Apollo Program or the Manhattan Project.*

Many environmental and some political leaders are now proposing large, round numbers to symbolize the level of investment and commitment they consider appropriate. However, it's not at all clear that a Federal crash program is the right model when there's plenty of skill and motivation in the private sector to introduce hydrogen fuel-cell vehicles rapidly — if they can compete fairly. This is difficult when, for example, the latest tax law makes up to \$100,000 for buying a *Hummer* (ostensibly for business purposes) deductible in new tax breaks, federal funds for automotive innovation virtually exclude innovation-rich small businesses, global and state initiatives to make carbon costs visible are opposed by the federal government, and feebates aren't yet on the agenda (disadvantaging American businesses). Incoherence in automakers' strategy is also undercutting their impressive innovations — trumpeted in full-page ads about their hydrogen cars — with contradictory marketing or litigating messages that hydrogen is far off and impractical (as they must presumably claim in their suit to oppose California's proposed CO<sub>2</sub> regulations) or that efficient cars must be small and unsafe (as they did claim when lobbying against tighter car-efficiency standards).

Coherent private- and public-sector policy could go a long way toward a rapid and profitable hydrogen transition. There are signs of smarter policy emerging in the Department of Energy's recent restructuring to integrate hydrogen, vehicle, building, and utility programs. On the other hand, a senior DOE official, when told in January 2002 that the just-announced FreedomCAR program hoped to develop over the next 10–20 years a car that had already been designed in 2000, replied, "Well, then, we'd better not try to help you, because we'd just slow you down." That might be true, but it shouldn't be true, and if we want a vibrantly competitive rather than a failing automotive industry, we'd better make it as untrue as possible.

The total cost of a hydrogen transition is probably a lot more than the \$1.7 billion proposed by President Bush over the next five years, but it is probably far less than \$100–300 billion. It may not be much bigger than the billions of dollars that the private sector has already committed to pieces of the puzzle — if the money is intelligently spent on an integrated buildings-and-vehicles

Hydrogen can be a very important ingredient in getting off oil, but is less important than end-use efficiency and is best combined with it. Without efficient cars (ultralight, low-drag), fuel-cell adoption will be unnecessarily slow and costly. An RMI analysis for Royal Dutch/Shell Group Planning in 1987–88 found a technical potential to save four-fifths of U.S. oil through more efficient use (and direct substitution of saved natural gas) at an average cost below \$4/barrel in 2003 dollars. Today's potential is even larger and cheaper, and RMI is updating that analysis. Integrating potential substitutions by hydrogen and biofuels will probably yield a potential to save far more oil than we use, at lower cost than we pay, and sooner than almost anyone now thinks possible. Watch for RMI's major analysis *Out of the Oil Box: A Roadmap for U.S. Mobilization*, now underway for publication later in 2003. Its economic attractiveness is likely to be clear just from private internal cost, without counting the many large externalities of oil dependence.

*Myth #20. The Bush Administration's hydrogen program is just a smokescreen to stall adoption of the hybrid-electric and other efficient car designs available now, and wraps fossil and nuclear energy in a green disguise.*

Most environmentalists — perhaps resentful that President Bush has stolen some of their thunder — think FreedomCAR and the Hydrogen Fuel Initiative are a stall, not a leapfrog, and consider the President's hydrogen announcement mere greenwash for stealthy, rhetorically attractive, but generally anti-environmental substantive policies. (Conversely, *The Wall Street Journal's* editorial board — apparently as unwilling to credit any idea environmentalists agree with as environmentalists are to credit any idea the President agrees with — attacks the President's "reasons for funding hydrogen cars [as] neither smart nor honest."<sup>2</sup>) The White House's opposition to significant near-term gains in car efficiency unfortunately foments the doubtless unworthy suspicion that hydrogen is being wielded as a political weapon of mass distraction. That lingering odor would best be dispelled by developing and deploying hydrogen to displace most or all petroleum motor fuel in the long run while *also* saving a lot of oil in the short run by aggressively encouraging hybrid-electric powertrains and other straightforward, available technological improvements that cost less than today's gasoline. Policy and credibility would also be improved by adding hydrogen dollars to the energy R&D budget rather than appearing to take them out of efficiency and renewables accounts.

Both the long-term hydrogen goals and the short-term car-efficiency goals are worthy, in sequence and in coordination; they also support each other, so there's no reason not to do both. Let the short-term measures support the long-term ones (e.g., by making cars more efficient and electric traction cheaper), and let them both compete fairly. If we don't, the losers will be Detroit (as foreign competitors take more market share), the Earth, American customers and taxpayers, and their economy, public health, and global security. But if we do, then hydrogen advocates' utopian visions of a cleaner, safer, and more prosperous world may be right on the money.

available review was kindly provided by Ron Britton, Cameron Burns, Odd-Evnen Bustnes, Kyle Datta, Dr. Jonathan Fox-Rubin, Bill Leighty, Ken K. Robinson, Dr. Joel Swisher PE, and Dr. C.E. Thomas. Numerous industry colleagues generously reviewed specific sections and shared data and insights. Will Leighty correctly noted that "Myth" originally meant a legend or fable rather than a fiction or falsehood, but despite my background as a classicist (and a student of the great Harvard mythology scholar A.B. Lord), I think the latter sense, like "Urban Legend," is well accepted, and I trust readers will understand it in this context as a shorthand for "Popular Delusion" or "Widely Believed Fallacy." Any remaining errors, unclarities, or infelicities are my sole responsibility, and will be corrected in subsequent editions if readers would kindly notify me via [outreach@rmi.org](mailto:outreach@rmi.org).

— ABL

## Notes

<sup>1</sup> J. Ball, "Skeptics: Fuel Cells a Long Shot," *Wall St. J.*, 30 Jan. 2003.

<sup>2</sup> *Wall St. J.* editorial, "Hydrogen Car Hype," 30 Jan. 2003.

<sup>3</sup> J. Ball, "Hydrogen Fuel May Be Clean; Getting It Here Looks Messy," *Wall St. J.*, p. A1, 7 March 2003, [http://online.wsj.com/WSJgate?subl\\_RI=article\\_0\\_SB1046990147219522880\\_email\\_00.html&nonsubl\\_RI=article\\_email\\_0\\_SB1046990147219522880\\_00.html](http://online.wsj.com/WSJgate?subl_RI=article_0_SB1046990147219522880_email_00.html&nonsubl_RI=article_email_0_SB1046990147219522880_00.html).

<sup>4</sup> G. Easterbrook, "Car Talk: Why Bush's h-car is just hot air," *New Republic* 4597:13–15, 24 February 2003.

<sup>5</sup> B. Eliasson & U. Bossel, "The Future of the Hydrogen Economy: Bright or Bleak?," *Procs. Fuel Cell World* (Luzern), 1–5 July 2002, pp. 367–382, European Fuel Cell Forum (Morgenacherstr. 2F, CH-5452 Oberrohrdorf, Switzerland), posted at [www.methanol.org/pdf/frame.cfm?pdf=HydrogenEconomyFinalReport.pdf](http://www.methanol.org/pdf/frame.cfm?pdf=HydrogenEconomyFinalReport.pdf), [www.evworld.com/databases/storybuilder.cfm?storyid=471](http://www.evworld.com/databases/storybuilder.cfm?storyid=471), and [www.woodgas.com/hydrogen\\_economy.pdf](http://www.woodgas.com/hydrogen_economy.pdf).

<sup>6</sup> G. Gallon, "Hydrogen Energy Economy Wrong Path," *The Gallon Environmental Letter* 7(6), 14 February 2003, Montréal, [cibe@web.net](mailto:cibe@web.net).

<sup>7</sup> L. King, "Stealing the environmental Holy Grail," *Tallahassee Democrat*, 2 Feb. 2003, p. E1.

<sup>8</sup> D.E. Knoll, "Hydrogen Pipedreams," *Wall St. J.* letter, 13 March 2003.

<sup>9</sup> T. & R. Magliozzi (The Car Guys), "Hydrogen cars still way off," *The Denver Post*, p. 3F, 10 March 2003.

<sup>10</sup> D. Morris, "Second Thoughts on a Hydrogen Economy," *AlterNet*, 24 Feb. 2003, [www.ilsr.org/columns/2003/022403.html](http://www.ilsr.org/columns/2003/022403.html).

<sup>11</sup> P. Schwartz & D. Randal, "How Hydrogen Can Save America," *Wired* 11.04:5–13, April 2003, [www.wired.com/wired/archive/11\\_04/hydrogen.html](http://www.wired.com/wired/archive/11_04/hydrogen.html).

<sup>12</sup> United States Council for Automotive Research (U.S.CAR), "Hydrogen as a Fuel," [www.uscar.org/Media/2002issue2/hydrogen.htm](http://www.uscar.org/Media/2002issue2/hydrogen.htm), downloaded 14 March 2003.

<sup>13</sup> Many people who should know better get this wrong. Even ExxonMobil Chairman Lee Raymond, in a talk prepared for the World Gas Conference in Tokyo on 3 June 2003, reportedly called hydrogen an energy "source."

<sup>14</sup> A good lay summary of the alternative methods is at pp. 19–22 of B. Kruse *et al.*, *Hydrogen – Status and Possibilities*, Bellona Foundation report 6–2002, Oslo, 2002, [www.bellona.no/en/energy/hydrogen/report\\_6-2002/index.html](http://www.bellona.no/en/energy/hydrogen/report_6-2002/index.html). The theoretical energy needed to split water at 25°C is 1.23 eV, today's electrolyzers run at ~1.7–1.9 eV, and 1.9 eV corresponds to a visible red wavelength of 650 nm, so "the entire visible spectrum of light has sufficient energy to split water into H<sub>2</sub> and O<sub>2</sub>"; the key is finding an efficient and affordable catalyst. J.A. Turner, *Science* 285: 687–689 (30 July 1999), at n. 12.

<sup>15</sup> In Greek, "hydrogen" means "water creator."

<sup>16</sup> See ref. 3.

<sup>17</sup> The Lower Heating Value of 1 kg of hydrogen (the value appropriate for use in a fuel cell) is 98.6% of the corresponding LHV of gasoline (115,400 BTU/USgal), or 91% of the Higher Heating Value of gasoline (125,000 BTU/USgal). See note 18.

<sup>18</sup> The author often erroneously did the same for hydrogen in the 1970s and early 1980s, and many analysts still do. A smaller but also significant distinction must also be drawn in how energy content is measured for different fuels.

higher Heating Value or HHV (142 MJ/kg) because the difference — the latent heat of vaporizing the returning water into steam — can also be recovered. Natural-gas and gasoline energy content and prices, by convention and in this article, are normally expressed at HHV. At the point of end-use, however, HHV is usually applied only to condensing boilers and furnaces that can recover the energy of condensing steam back into water, while LHV is commonly used for engines, gas turbines, power stations, and fuel cells.

<sup>19</sup> Lower figures, around 50% or somewhat less, are sometimes quoted for suboptimally designed systems, particularly those crammed into small volumes and fed with air from inefficient blowers.

<sup>20</sup> The Otto (normal gasoline piston) engine is 30-odd percent efficient under ideal conditions, but having to operate over a wide range of speed and torque cuts its average as-used efficiency about in half.

<sup>21</sup> The Otto engine is most efficient under its highest loads, which very seldom occur: most of the time, the car uses only a small fraction of the engine's capacity (about a sixth in highway cruising or a few percent in city driving). In contrast, fuel cells are most efficient at the low loads that dominate automotive operation. Thus the fuel cell is inherently better matched than an Otto engine to the car's varying loads. Engine-hybrid drive reduces the fuel cell's advantage, although hybridizing the fuel cell too can partly recover that loss.

<sup>22</sup> J.N. Swisher, *Cleaner Energy, Greener Profits*, RMI, 2002, [www.rmi.org/images/other/E-Cleaner/greener.pdf](http://www.rmi.org/images/other/E-Cleaner/greener.pdf). A well-known example is a large Omaha credit-card processing center whose redundant fuel-cell power supply avoids costly power failures from the grid. Fuel cells also produce direct current, which can be used directly in digital equipment rather than converting it to alternating current and back: see the report of Rocky Mountain Institute's February 2003 San Jose charrette on super-efficient data-center design, [www.rmi.org/sitepages/pid626.php](http://www.rmi.org/sitepages/pid626.php).

<sup>23</sup> Hydrogen Information Network, [www.cere.energy.gov/hydrogenandfuelcells/hydrogen\\_faqs.html](http://www.cere.energy.gov/hydrogenandfuelcells/hydrogen_faqs.html).

<sup>24</sup> At the Lower Heating Value of gasoline (see note 18).

<sup>25</sup> Since the density of hydrogen gas at standard conditions is 0.090 kg/m<sup>3</sup>, a kilogram of H<sub>2</sub> occupies 11.1 m<sup>3</sup>. One cubic meter equals 35.3 cubic feet. Naturally, the amount of any gas in a cubic meter depends on its pressure, which is conventionally measured under "standard" or "normal" conditions — 100,000 Pa (0.987 bar) pressure and 273.15 K (0°C) — though slightly different conditions are sometimes assumed.

<sup>26</sup> See note 23.

<sup>27</sup> The best information RMI has so far found indicates ~2002-03 U.S. use of ~15 MT/y of hydrogen (note 29), equivalent to not one-fifth but one-third of the commonly quoted ~50 MT/y of global hydrogen use.

<sup>28</sup> The reformer's catalytic process heats the methane, partially oxidizes it to carbon monoxide, reacts that with steam to "shift" to a mixture of hydrogen and carbon dioxide, then separates them, typically using amines. It is often followed by a further cleanup stage, such as pressure-swing adsorption, depending on the hydrogen purity desired. The overall reforming/shift reaction turns one molecule of methane (CH<sub>4</sub>) and two of water (H<sub>2</sub>O) into four molecules of hydrogen (H<sub>2</sub>) and one of carbon dioxide (CO<sub>2</sub>). The hydrogen comes half from the methane and half from the water. Reformation is similar for larger hydrocarbon molecules, and is endothermic, requiring heat to be added. The shift reaction is exothermic, but at a lower temperature, so instead of directly reusing the heat, engineers normally use separated and cleaned-up shift-reactor tailgas to fuel the reformer.

<sup>29</sup> Published recent data on global hydrogen uses by sector or end-use are hard to find, there is no official data source or public hydrogen market, many data are proprietary, data differ markedly between leading hydrogen companies, firms' published data may differ from their internal "what-we-believe" data, many data are poorly specified, and many data sets are fuzzy or incomplete (so Air Products says total and refinery usage of hydrogen is uncertain to ±15%). Nonetheless, an approximate picture can be pieced together. **World:** The 37%-to-refineries fraction, apparently around the mid-1990s, is a low-end estimate from David Hart (Imperial College, London), *Hydrogen Power — The commercial future of 'the ultimate fuel'*. Financial Times Energy Publishing, 1997, p. 71, Table 5.3. Hydrogen consumption by industry (also showing 50% going to produce ammonia and 8% to produce methanol); it's also quoted by the IEA ([www.ieagreen.org/uk/h2ch2.htm](http://www.ieagreen.org/uk/h2ch2.htm)) in 1999 and as Fig. 7 of Kruse *et al.* (ref. 14) in 2002. In contrast, data presented at the Hannover Messe in 2003 by Air Liquide (kindly provided by Bjoern Kruse) states that world H<sub>2</sub> production in 2001 was 540 billion m<sup>3</sup> (equivalent to 48.6 MT/y), going 51% to ammonia, 45% to refining (including 6% "over-the-fence"), 3% to chemicals (3% OTF), and <1% to others (57% OTF). This 37-45% range is probably due partly to the different date and partly to different conventions for counting or excluding refineries' byproduct hydrogen as discussed below. **United States:** The *Chemical Economics Handbook* lists 1999 U.S. hydrogen consumption as 3.152 trillion standard cubic feet (Tscf), equivalent to 8 MT/y and reasonably consistent with the U.S. Department of Energy website's undated "9 million tons" per year

[www.eere.energy.gov/hydrogenandfuelcells/hydrogen/current\\_uses\\_nhm](http://www.eere.energy.gov/hydrogenandfuelcells/hydrogen/current_uses_nhm). *CEH* says the usage comprises 88% captive users (38% ammonia, 37% refineries, 10% methanol, 4% other) and 12% merchant users (11.2% pipeline or onsite, 0.8% cylinder/truck/rail). However, much of the merchant use goes to the same usage categories already separately listed in the "captive" category: Air Products data, for example, indicate that 1.1 Bscf/d, or 29% of "on-purpose" usage, by U.S. refineries in 2001 was outsourced, while a further 2.7 Bscf/d was insourced. In 1999, therefore, the *CEH* data indicate that U.S. refineries used 1.164 Tscf of captive-market hydrogen plus an unstated amount of merchant hydrogen. A separate recent estimate says 67% of U.S. merchant hydrogen went to refineries and another 26% to petrochemical plants (C.E. Thomas, pers. comm., 3 March 2003), implying total refinery usage of ~1.417 Tscf/y in 1999, or 45% of total U.S. hydrogen usage as given by *CEH*. For ~2002–03, Air Products puts refinery usage at ~47% of an 84% higher figure for total U.S. hydrogen consumption: 16 Bscf/d or ~5.8 Tscf/y (1.5 MT/y, 1.8 EJ/y). Fuller data kindly provided by Air Products — the world's biggest merchant hydrogen producer, at over 0.9 Bscf/d — suggest that the *CEH* data may be understating both refinery and total U.S. hydrogen usage by not fully reflecting refineries' onsite byproduct hydrogen production. (Such an omission would account for 55% of the discrepancy in total U.S. hydrogen usage; the rest could come from omitting similar internal and byproduct hydrogen streams in other industries.) The Air Products data show that U.S. refineries' 2001 production and consumption of hydrogen totaled ~7.5–8 BscfH<sub>2</sub>/d, with the range depending on purity (T.C. Golden, pers. comm. to Ken Robinson, 10 April 2003, and K.M. Campbell (Global Mktg. Mgr., Air Products), pers. comm., 20 June 2003). Of this total, ~3.8 Bscf/d is "on-purpose" hydrogen and the other ~4 Bscf/d is ~75–93% pure byproduct hydrogen produced by catalytic reformers used to make high-octane gasoline (via dehydrocyclization, which converts straight-chain paraffins to aromatics). This makes it appear that slightly over half of U.S. refinery hydrogen is absent from the *CEH* statistics because it's an internal process flow. Air Products estimates that some ~10–15% of the ~7.5–8 Bscf/d total ends up in refinery fuel rather than in products, but refinery H<sub>2</sub> is growing rapidly (by 32% during 1991–2001; 84% of that growth was outsourced, typically because demand for high-quality, low-sulfur fuels outran the aromatics-byproduct hydrogen made onsite). Roughly netting the growth and the usage as refinery fuel, we can therefore reasonably assume for ~2003 the lower end of the 2001 range, ~7.5 Bscf/d of U.S. refinery usage, equivalent at a nominal 100% duty factor to 2.74 Tscf/y — 2.35 times the apparently-low *CEH* captive-user figure for 1999. At a conventional LHV conversion of 35.3 scf/Nm<sup>3</sup> [N = normal], 10.8 MJ/Nm<sup>3</sup>, and 120 MJ/kg, 2.74 Tscf/y is equivalent to 7 MTH<sub>2</sub>/y of total refinery hydrogen with an energy content of 0.84 EJ/y. The continuing growth in refinery usage is due to higher light-product yields, more-sour crudes, and tighter desulfurization specifications: Air Products expects hydrogen usage to rise further, from 400–800 scf/bbl for typical U.S. refineries in the 1990s (to achieve <1,000 to <30 ppm S) to 800–1000<sup>+</sup> scf/bbl in ~2010<sup>+</sup> (to achieve <15 to <30 ppm S). (As a consistency check, U.S. refineries processed 16.31 Mbbbl/d of crude oil in 2001, so ~7.8 Bscf/d of H<sub>2</sub> would be equivalent to 478 scf/bbl, well within the 1990s range stated.) RMI's efforts to refine these data are continuing.

<sup>30</sup> "Hydrogen Pipelines," HyWeb, 18 Dec. 2002, Ludwig-Bölkow-Systemtechnik GmbH (LBST) / German Hydrogen Association, [www.hydrogen.org/News/arcv402e.html#LBST%20Analysis%2002-12-18](http://www.hydrogen.org/News/arcv402e.html#LBST%20Analysis%2002-12-18), updated by B. Kruse *et al.* (ref. 14), p. 28.

<sup>31</sup> W.C. Leighty, M. Hirata, K. O'Hashi, H. Asahi, J. Benoit, & G. Keith, "Large Renewables—Hydrogen Energy Systems: Gathering and Transmission Pipelines for Windpower and Other Diffuse, Dispersed Sources," World Gas Conf. 2003 (Tokyo), 1–5 June.

<sup>32</sup> Air Liquide, "Hydrogen Delivery Technologies and Systems," *Procs. Hydrogen Delivery Workshop*, [www.eere.energy.gov/hydrogenandfuelcells/hydrogen/wkshp\\_h2\\_delivery.html](http://www.eere.energy.gov/hydrogenandfuelcells/hydrogen/wkshp_h2_delivery.html), 7–8 May 2003, Sandia National Laboratories.

<sup>33</sup> "Hydrogen Liquefaction," HyWeb, 28 Feb. 2003, LBST/GHA,

[www.hydrogen.org/News/arcv103e.html#LBST%20Analysis%2003-02-28](http://www.hydrogen.org/News/arcv103e.html#LBST%20Analysis%2003-02-28).

<sup>34</sup> See [www.hydrogen.org/](http://www.hydrogen.org/), [www.eere.energy.gov/hydrogenandfuelcells/codes/](http://www.eere.energy.gov/hydrogenandfuelcells/codes/), and [www.eere.energy.gov/hydrogenandfuelcells/codes/pubs.html](http://www.eere.energy.gov/hydrogenandfuelcells/codes/pubs.html). It follows that the risks of wide public deployment are comparable to or less than those of the existing wide public deployment of other fuels, including gasoline. However, historic doctrines governing tort liability may not adequately recognize this: R. Moy, "Liability and the Hydrogen Economy," *Science* **301**:47 (4 July 2003), [www.sciencemag.org/cgi/reprint/301/5629-47a](http://www.sciencemag.org/cgi/reprint/301/5629-47a).

<sup>35</sup> This is true also for hydrogen evaporating from a spill of liquid hydrogen, which is not directly flammable. Thus a liquid spill of 3.3 m<sup>3</sup> in a 4 m/s wind has a danger zone of 1,000 m<sup>2</sup> for hydrogen, 5,000 m<sup>2</sup> for methane (LNG), and 13,500 m<sup>2</sup> for propane, and of those three gases, only hydrogen cannot form a "fire carpet." R. Faab, "Cryoplane:



[www.hydrogen.org/Knowledge/w-l-energieue-eng.html](http://www.hydrogen.org/Knowledge/w-l-energieue-eng.html).

<sup>37</sup> A.D. Robinson, "Hydrogen Hype," *Access to Energy* 30(9):1 (April 2003).

<sup>38</sup> A. Bain & W.D. Van Vorst, "The Hindenburg tragedy revisited: the fatal flaw found," *Intl. J. Hydr. En.*

24:399-403 (1999); A. Bain & U. Schmidchen, "Afterglow of a Myth: Why and how the 'Hindenburg' burnt,"

[www.dwv-info.de/pm/hindbg/hbc.htm](http://www.dwv-info.de/pm/hindbg/hbc.htm).

<sup>39</sup> See ref. 53.

<sup>40</sup> M.R. Swain, "Fuel Leak Simulation," [www.eren.doc.gov](http://www.eren.doc.gov).

<sup>41</sup> C.E. Thomas, personal communication, 4 June 2003.

<sup>42</sup> M.A. Weiss *et al.*, *On the Road in 2020: A life-cycle analysis of new automobile technologies*, MIT EL-00-003, 2000, at p. 2-5, <http://fcec.mit.edu/publications/PDF/el00-003.pdf>, updated in 2003 by M.A. Weiss *et al.*, *Comparative Assessment of Fuel Cell Cars*, [http://fcec.mit.edu/publications/PDF/LFEE\\_2003-001\\_RP.pdf](http://fcec.mit.edu/publications/PDF/LFEE_2003-001_RP.pdf).

<sup>43</sup> Thomas (*op. cit. infra*, ref. 53) uses a nominal value of 72% (LHV hydrogen produced / LHV natural gas input), not counting minor use of electricity by the miniature reformer.

<sup>44</sup> Boeing's exothermic One-Step Hydrogen (BOSH) process, now in testing, is predicted to be even more efficient, and to cost half as much as traditional reformers. Other developers are on similar trails.

<sup>45</sup> Or ~80-90+% for electrolyzers using hydrogen's Higher Heating Value. R. Wurster & W. Zittel (LBST), "Hydrogen Energy," *Procs. Workshop on Energy Technologies to Reduce CO<sub>2</sub> Emissions in Europe: Prospects, Competition, Synergy*, Energieonderzoek Centrum Nederland (ECN), Petten, 11-12 April 1994,

[www.hydrogen.org/Knowledge/ECN-h2a.html](http://www.hydrogen.org/Knowledge/ECN-h2a.html). At low load, which correspondingly decreases asset utilization, the HHV efficiency can be much higher yet: for example, Hans Hoffman of the German firm GHW (pers. comm., 17 March 2003) reports 82% (HHV) at full load, rising to 98% at 1/6 load, measured for the 450-kW, 30-bar alkaline electrolyzer at the Munich airport.

<sup>46</sup> See note 18.

<sup>47</sup> Toyota Motor Corporation, slide "Well to Wheel Efficiency," using Japanese 10-15 test mode (other countries' test procedures differ) and Toyota's fuel-cell vehicle target, presented to Shanghai Fuel Cell Vehicle Forum, 4-5 December 2002. Current fuel-cell cars are slightly less efficient than this target because many still have powertrain efficiencies (tank-to-wheels) nearer 50% than 60%. The U.S. version of the GM/Argonne well-to-wheels analysis is generally less sanguine than Toyota's expectations because of its unnecessarily conservative assumptions about vehicle design. The European variant (ref. 142) turned out somewhat better, partly due to a more advanced transmission and a more efficient natural-gas supply system. Both studies found that direct-hydrogen fuel-cell vehicles offered the greatest advances in fuel savings and climate safety.

<sup>48</sup> W. Zittel & R. Wurster (LBST), "The prospects for a hydrogen economy based on renewable energy," *Procs. Conf. Ireland's Transition to Renewable Energy*, 1 Nov. 2002, [www.hydrogen.org/Knowledge/Ireland2002.html](http://www.hydrogen.org/Knowledge/Ireland2002.html).

<sup>49</sup> However, well-designed big liquefaction plants could reduce the electricity input to as little as 21% of the liquid hydrogen's energy content (ref. 33). Some newer technologies such as magnetic or sonic cooling, or thermionic quantum tunneling diodes ([www.coolchips.com](http://www.coolchips.com)), may improve this further. The liquefaction energy can also be recovered to provide cooling at the site of regasification, as is sometimes done with liquefied natural gas, which is at about -161 °C (vs. liquid hydrogen's -253 °C).

<sup>50</sup> Liquid hydrogen contains one-fourth the energy of kerosene per gallon but is 2.8 times lighter per unit of energy, permitting ~20-25% higher payloads (ref. 48): aircraft designers care far more about weight than volume. It also burns far cleaner: instead of 1 kg of kerosene making 3.16 kg of CO<sub>2</sub> and 1.24 kg water plus CO, soot, NO<sub>x</sub>, SO<sub>2</sub>, and unburned hydrocarbons, 0.36 kg of hydrogen (with identical energy content) makes 3.21 kg of water, traces of NO<sub>x</sub> (if burned in a jet engine, not if used in a fuel cell), and nothing else. Actual LH<sub>2</sub> usage and emissions would be less because hydrogen's mass, drag, climb, cruise, and engine-efficiency effects (for a nominal 767 platform) yield a ~10-15% net gain in fuel economy: D. Daggett (Boeing), "Commercial Airplanes: Hydrogen Fueled Airplanes," *Hydr. Prod'n. & NW Transportation Conf.*, Seattle (PNL), 16 June 2003, and pers. comm., 16 June 2003. NASA, Boeing, and Tupolev have done liquid-hydrogen aircraft design studies; a Tu-154 flew on liquid hydrogen fuel in 1988. Airbus's 35-partner consortium ([www.diebrennstoffzelle.de/h2projekte/fahrzeuge/cryoptane.shtml](http://www.diebrennstoffzelle.de/h2projekte/fahrzeuge/cryoptane.shtml)), under EU funding, has already established the concept's basic feasibility and safety. (Kruse *et al.*, ref. 14, also cited at p. 48 a pair of U.S. studies showing that in a crash, a liquid-hydrogen passenger jet would be safer than a kerosene-fueled one.) Boeing has announced work on fuel-cell applications for both propulsion and auxiliary power, and expects in

<sup>51</sup> Assistant Secretary of Energy David Garman correctly, if somewhat conservatively, states that "a fuel-cell vehicle using hydrogen produced from natural gas uses 50% less energy and emits 60% fewer greenhouse gases compared to a gasoline vehicle" (assuming the vehicles are identical except in powertrain and fuel): "Freedom Car: 'Free Ride' or Fuel Economy Savior? An e-EFFICIENCY NEWS Point-Counterpoint," Alliance to Save Energy newsletter, 21 May 2003, [www.ase.org](http://www.ase.org). His source is a standard A.D. Little-DOE 2002 study summarized in DOE's Feb. 2003 fuel-cell report to Congress, ESECS EE-1973, at [www.eere.energy.gov/hydrogenandfuelcells](http://www.eere.energy.gov/hydrogenandfuelcells), p. 3.

<sup>52</sup> A.B. Lovins & B.T. Williams, "A Strategy for the Hydrogen Transition," *Procs. Natl. Hydr. Assn. Ann. Conf.*, April 1999, [www.nni.org/images/other/HC-Strategy/KCTrans.pdf](http://www.nni.org/images/other/HC-Strategy/KCTrans.pdf).

<sup>53</sup> C.E. Thomas, "Hydrogen and Fuel Cells: Pathway to a Sustainable Energy Future," 2 February 2002, [www.h2gen.com/main.php?page=why.html](http://www.h2gen.com/main.php?page=why.html).

<sup>54</sup> C.E. Thomas, personal communication, 4 June 2003.

<sup>55</sup> See ref. 52.

<sup>56</sup> This reduction, based on the actual car design described below, is larger than the official ~40-67% range normally cited, because it assumes a car whose lighter weight and lower drag greatly reduce the power needed to propel it.

<sup>57</sup> This is mainly an issue for coal because it is most of the global fossil-fuel resource and has the highest carbon-hydrogen ratio of all fossil fuels. Technologies now known or being explored for sequestering carbon do not look promising for decentralized use of coal, but some do show promise for centralized use of coal.

<sup>58</sup> However, *marine* transportation of liquid hydrogen, though not mentioned by the Swiss authors, may well make economic sense (just as liquefied natural gas is increasingly transported today), but would be safer than LNG. Large, perhaps fourfold, increases in the energy efficiency of conventional large-scale LNG production are feasible and probably profitable in new installations, and similar opportunities would apply to LH<sub>2</sub> plants.

<sup>59</sup> Some of the largest U.S. refineries today are earning more profit as merchant electricity producers than as refiners of petroleum products. The opportunity to earn more money by selling merchant hydrogen than hydrocarbons is analogous.

<sup>60</sup> See ref. 30.

<sup>61</sup> See ref. 32.

<sup>62</sup> *Id.*

<sup>63</sup> See refs. 31-32.

<sup>64</sup> "Hydrogen Distribution using Low-pressure Gas Pipelines," HyWeb, 25 Oct. 2002, LBST/GHA, [www.hydrogen.org/News/arcv402c.html#LBST\\_Analysis\\_02-12-18](http://www.hydrogen.org/News/arcv402c.html#LBST_Analysis_02-12-18).

<sup>65</sup> B.J. Feder, "For Far Smaller Fuel Cells, a Far Shorter Wait," *New York Times*, 16 March 2003, [www.nytimes.com/2003/03/16/business/yourmoney/16FUEL.html](http://www.nytimes.com/2003/03/16/business/yourmoney/16FUEL.html).

<sup>66</sup> J.N. Swisher, *op. cit. supra*, ref. 22.

<sup>67</sup> For example, properly arranged fuel cells can provide a microchip fabrication plant with seven benefits — ultra-reliable power, displacement of the capital and maintenance cost and the ~6-8% losses of the uninterruptible power supply, process heat, ultra-pure hot water (a costly process input), and onsite hydrogen production that can also displace process hydrogen currently imported in tube trucks. Together, these benefits usually justify a prompt retrofit. Similarly, Dow and GM plan to start testing in late 2003 and deploying in 2006 up to 3.5 MW of PEM fuel cells into Dow's biggest plant — the 30-square-mile, ~1,750-MW Freeport complex in Texas — to turn chloralkali-byproduct hydrogen into direct-current electricity (good for electrochemistry) and useful heat: Dow press release "Dow Plans to Use GM Fuel Cells in World's Largest Fuel Cell Transaction," 7 May 2003, [www.dow.com/dow\\_news/corporate/2003/20030507e.htm](http://www.dow.com/dow_news/corporate/2003/20030507e.htm).

<sup>68</sup> For this reason, no serious student of the subject expects any problem with availability of the platinum-group catalyst metals, whose requirements should be comparable to those of existing cars' catalytic converters if well-designed stacks use direct hydrogen. The value of even low catalyst concentrations, however, will probably encourage leasing, lifecycle responsibility, or other business models that encourage complete catalyst recovery at the end of the stack's working life.

<sup>69</sup> PEM, which can mean (identically) Proton Exchange Membrane or Polymer Electrolyte Membrane.

<sup>70</sup> L.D. Burns, J.B. McCormick, & C.E. Borroni-Bird, "Vehicle of Change," *Sci. Amer.*, pp. 64-73, Oct. 2002. The gain in power density since 1989 exceeds 20-fold: T. Lipman & D. Sperling, "Market concepts, competing tech-

Thomas (ref. 53) at p. 26) notes that gas-reformer PEM fuel-cell systems will be significantly more fuel-efficient than microturbines, but only slightly more fuel-efficient than engine-generators. Their advantage over the latter will come rather from lower noise, emissions, and maintenance.

<sup>72</sup> The normally assumed need for ~\$30–100/kW fuel cells to compete with internal-combustion engines can be relaxed by about threefold — probably more from a whole-platform perspective — through better platform physics, as described in Myth #7 and its sidebar.

<sup>73</sup> H. Tsuchiya & O. Kobayashi ("Fuel Cell Cost Study by Learning Curve," EMF/HASA International Energy workshop, Stanford University, 18–20 June 2002) predict a somewhat smaller range of 14–26% per doubling.

<sup>74</sup> T.E. Lipman & D. Sperling, "Forecasting the Costs of Automotive PEM Fuel Cell Systems Using Bounded Manufacturing Progress Functions," Intl. Workshop on Experience Curves for Policy Making: The Case of Energy Technologies, Stuttgart, 10–11 May 1999, International Energy Agency (Paris).

<sup>75</sup> See [www.hydrogen.org/h2ears/overview/main00.html](http://www.hydrogen.org/h2ears/overview/main00.html).

<sup>76</sup> J.M. Ogdan, R.H. Williams, & E.D. Larson, "Societal lifecycle costs of cars with alternative fuels/engines," *En. Pol.*, 2003, in press.

<sup>77</sup> Some, chiefly in the methanol industry, dispute claims of MTBE's toxicity and blame its California demise on the ethanol lobby. Whatever the scientific reality, wide retention and adoption of MTBE faces serious political hurdles.

<sup>78</sup> "Linde has created filling station using 700-bar technology for the Adam Opel AG," *HyWeb—Gazette*, 2Q2003, [www.hyweb.de/gazette-e/](http://www.hyweb.de/gazette-e/). According to G. Thomas & J. Keller, "Hydrogen Storage — Overview," *Procs. Hydrogen Delivery Workshop*, [www.eere.energy.gov/hydrogenandfuelcells/hydrogen/wkshp\\_h2\\_delivery.html](http://www.eere.energy.gov/hydrogenandfuelcells/hydrogen/wkshp_h2_delivery.html), 7–8 May 2003, Sandia National Laboratories, p. 6, such tanks raise the H<sub>2</sub> LHV energy density from 2.7 MJ/L at 350 bar to 4.7 MJ at 700 bar — less than a doubling because of departures from the Ideal Gas Law. The corresponding system densities, including tank and its immediate fittings, are about 1.95 and 3.4 MJ/L. For comparison, liquid hydrogen has an estimated storage density of 4.2–5.6 MJ/L (*id.*).

<sup>79</sup> Hypercar, Inc.'s AVACS™ (Automotive Volume Advanced Composites Solution) is described in D.R. Cramer & D.F. Taggart, "Design and Manufacture of an Affordable Advanced-Composite Automotive Body Structure," *Procs. 19th Intl. Battery, Hybrid & Fuel Cell El. Veh. Sympos. & Exh.*, Seoul, 2002 (EVS-19).

[www.hypercar.com/pdf/Hypercar\\_EVS19.pdf](http://www.hypercar.com/pdf/Hypercar_EVS19.pdf)

<sup>80</sup> The Revolution concept car by Hypercar, Inc., [www.hypercar.com/pages/casestudies.html](http://www.hypercar.com/pages/casestudies.html). See A.B. Lovins & D.R. Cramer, "Hypercars®, Hydrogen, and the Automotive Transition," *Intl. J. Veh. Design*, special future-vehicles issue, in press, 2003.

<sup>81</sup> For reasons obscure to other automakers, BMW has demonstrated both liquid-hydrogen fueling and its use only for auxiliary power, not for propulsion. On 9 April 2003, GM announced a joint development program with BMW for liquid hydrogen refueling devices, which have some adherents in Germany under draft specifications by the European Integrated Hydrogen Project. GM seeks global standardization on a LH<sub>2</sub> refueler coupling in case liquid hydrogen proves unexpectedly attractive, but its own development is strongly oriented toward gaseous hydrogen.

<sup>82</sup> N.L. Rossi *et al.*, "Hydrogen Storage in Microporous Metal-Organic Frameworks," *Science* **300**:1127–1129 (16 May 2003), summarized in M.D. Ward, "Molecular Fuel Tanks," *Science* **300**:1104–1105 (16 May 2003).

<sup>83</sup> L.C. Moulthrop, Jr., VP Product Development, Proton Energy Systems, personal communication, 12 May 2003.

<sup>84</sup> Bigger than home-scale, but far smaller than the currently prevalent industrial scale.

<sup>85</sup> An average U.S. gasoline filling station refuels ~175 cars/day, each at an average interval of ~8 days. An equivalent hydrogen station would support ~1,400 fuel-cell cars — or more if they're unusually efficient.

<sup>86</sup> Most gas experts agree that a commercial gas price of ~\$6/GJ should be ample to ensure supplies for a very long time, even in currently gas-short North America.

<sup>87</sup> C.E. Thomas, personal communication, 4 June 2003.

<sup>88</sup> Thomas (ref. 53). The 2.2η assumption is also from his extensive analyses with and for Ford, is empirically grounded in conventional fuel-cell technology, and assumes only modest reductions in mass and drag. The variable-cost economics are straightforward. An 85%-efficient reformer converts, say, \$4/GJ HHV or \$4 × 1.11 = \$4.44/GJ LHV natural gas into \$4.44/0.85 = \$5.22/GJ LHV hydrogen, or \$0.63/kg. With 75% (LHV) electrolyzer efficiency, since 1 kWh contains 3.6 MJ, \$0.02/kWh yields \$7.4/GJ or \$0.89/kg hydrogen — the equivalent of \$5.67/GJ (HHV) natural gas. The electrolyzer is also about twice as capital-intensive if both units are at industrial scale (Wurster & Zittel, *op. cit. supra*, ref. 45), and normally has costlier transmission and distribution infrastructure, although this can shift if the gas grid is full even at off-peak periods but the electric grid is not.

See ref. 53.

<sup>91</sup> Where off-peak electricity is cheap enough for electrolysis to compete with gas reformers, the price of off-peak electricity may come to be driven by the market for hydrogen, while the on-peak market would be driven by demand for electricity.

<sup>92</sup> However, electrolytic hydrogen may well compete with gasoline in countries like Iceland or Norway, where hydropower is cheap while gasoline is heavily taxed.

<sup>93</sup> See note 88.

<sup>94</sup> DOE, Office of Hydrogen, Fuel Cells, and Infrastructure Technologies, 3 June 2003 draft multi-year program plan, [www.ere.energy.gov/hydrogenandfuelcells/mypp/pdf/s3.1\\_production.pdf](http://www.ere.energy.gov/hydrogenandfuelcells/mypp/pdf/s3.1_production.pdf).

<sup>95</sup> E.g., Thomas & Keller, ref. 78. However, the nature of the impurity matters — sulfur, for example, can cumulatively poison the catalyst, while the effects of carbon monoxide are generally reversible — and there are complex tradeoffs between lifetime, efficiency, cost, and hydrogen purity.

<sup>96</sup> L.D. Burns, J.B. McCormick, & C.E. Borroni-Bird, "Vehicle of Change," *Sci. Amer.* **287**(4):67–73, Oct. 2002.

<sup>97</sup> "The Spirit of the Coming Age," in [www.shell.com/home/media-en/downloads/scenarios.pdf](http://www.shell.com/home/media-en/downloads/scenarios.pdf).

<sup>98</sup> Thomas (ref. 53) points out that a \$0.01/gallon gasoline tax, ideally as part of a fuels feebate, would suffice to install hydrogen infrastructure in more 5% of the nation's major gasoline filling stations per year. Meanwhile, investments to sustain the gasoline infrastructure would fall by even more, and so therefore, presumably, would gasoline prices.

<sup>99</sup> See ref. 11.

<sup>100</sup> See ref. 89.

<sup>101</sup> Fifty MT H<sub>2</sub>/y at LHV (120 MJ/kg) is 6 EJ/y. Used in quintupled-equivalent-efficiency vehicles, that would displace 30 EJ/y of gasoline-equivalent. World apparent consumption of gasoline in 2000 was 19.76 Mbbbl/d or ~42 EJ ([www.eia.doe.gov/emeu/iea/table35.html](http://www.eia.doe.gov/emeu/iea/table35.html)), and 30/42 is 0.71.

<sup>102</sup> See note 29.

<sup>103</sup> In 2000, all highway vehicles used 20.7 QBTU or 21.9 EJ of gasoline (77%) and diesel fuel (23%), 74% of it gasoline in light vehicles (ORNL *Transportation Energy Data Book*, [www.cta.ornl.gov/cta/data/index.html](http://www.cta.ornl.gov/cta/data/index.html), edn. 22, p. 2-6). With 5η light vehicles and 22η medium-and-heavy vehicles, that 22 EJ of highway-vehicle petroleum fuel could be displaced by ~5.5 EJ of H<sub>2</sub>, or ~6.5 times the estimated 0.84 EJ/y currently used by U.S. refineries (note 29). Displacing the gasoline alone would take ~4 times that refinery H<sub>2</sub> usage.

<sup>104</sup> The potential in class 3+ wind areas, net of environmental and land-use exclusions, is estimated at 1,210 TWh/y for North Dakota and 1,030 TWh/y for South Dakota (Pacific Northwest Laboratory, *An Assessment of the Available Windy Land Area and Wind Energy Potential in the Contiguous United States*, 1991, not adjusted for the potential effects of recently discovered larger-than-expected high-level wind: C.L. Archer & M.Z. Jacobson, "Spatial and temporal distribution of U.S. winds and wind power at 80 m derived from measurements," *J. Geophys. Res.*

**105**(D9):4289–4309 (2003)). At a nominal 75% electrolyzer efficiency, the total wind electricity from these two states could produce 50 MT/y of hydrogen, excluding electric and gas transmission losses and compressor energy. This illustrates the fallacy of claims that other than nuclear power, "there is no other place...to get the energy to make hydrogen in practical quantities": A.D. Robinson, ref. 37.

<sup>106</sup> A standard Linde natural-gas steam reformer releases 0.82 kg of CO<sub>2</sub> per standard m<sup>3</sup> of H<sub>2</sub> (Wurster & Zittel, *op. cit. supra*, ref. 45, Ch. 9), or 2.5 kgC/kg H<sub>2</sub>. For illustration, Hypercar, Inc.'s *Revolution* concept SUV would use 0.64 kgH<sub>2</sub>/100 km, so it would release 1.6 kgC/100 km if making its hydrogen from natural gas in this way, plus a small amount for the reformer's use and the retail compressor's net use of electricity. Its gasoline-engine equivalent (a Lexus RX300) is fivefold less efficient — 20 mi/gal or 0.12 kgC/mile or 7.4 kgC/100 km from the gasoline, plus roughly one-fourth for the related fuel cycle (ADL-DOE, *op. cit. supra*, ref. 51) — so, consistent with their efficiency ratio, it releases about five times more total carbon per mile than the *Revolution*.

<sup>107</sup> Based on note 88's operating costs alone, onsite electrolysis paying \$0.02/kWh can deliver hydrogen at the same cost as an onsite reformer paying \$5.67/GJ (HHV) for natural gas. Just the reported operating cost of existing U.S. nuclear plants (excluding major repairs, which are capitalized, and any increases beyond the currently socialized costs of waste disposal, security, third-party liability, etc.) averaged \$0.02053/kWh in 1996–2000 inclusive (mixed current \$), or \$0.0213/kWh (2000 \$), according to the consultant-edited data set presented by EIA, *Electric Power Annual 2000*, vol. 2, Table 13. Interestingly, the unedited data set for 1995–97 reported in *Nucleonics Week*, 18 June

lower figures for 1996–2000, typically much cheaper to deliver electricity through the existing grid (assuming it has spare capacity) than to deliver centrally produced hydrogen in a new distribution system, so let's assume that method. RMI's *Small Is Profitable* ([www.smallisprofitable.org](http://www.smallisprofitable.org)) shows at pp. 217–218 that in 2000 \$, the embedded average 1996 delivery cost for a U.S. kWh was  $-\$0.025/\text{kWh}$  (as a small business, a filling station is a good surrogate for the average customer). The short-run marginal cost of delivered U.S. nuclear electricity is thus  $-\$0.0463/\text{kWh}$  — competitive in hydrogen-producing operating cost with gas at  $\$16.8/\text{GJ}$ , equivalent to  $\$97/\text{bbl}$  oil. As stated earlier, only an extremely cheap source of delivered electricity can compete with onsite gas reformers as a source of hydrogen, and even existing nuclear plants, at operating cost only, clearly don't fit this description.

<sup>107</sup> Ref. 31 correctly notes that dedicated wind-to-hydrogen systems can considerably reduce the costs and losses of the wind turbines because they can provide variable-voltage DC rather than constant-frequency AC. To be sure, transporting energy from the Dakotas to Midwestern cities wouldn't be cheap; yet the U.S. Senate has little trouble voting as much as tens of billions of dollars in subsidies for a clearly uneconomic pipeline to transport 35 Tef of stranded gas from Alaska's North Slope. (Such a pipeline, especially via the Canadian route, might make considerably more economic sense if it carried hydrogen instead, reformed at the wellhead with  $\text{CO}_2$  reinjection.)

<sup>108</sup> Normally biomass is reformed by oxygen-blown partial oxidation, followed by  $\text{CO}$  shift and then purification of the hydrogen with standard amine scrubbing or pressure-swing adsorption. Air-blown gasification may suffice if the fuel cell will tolerate nitrogen impurity in the hydrogen. Reforming biomass may become cheaper with new non-platinum-group catalysts, e.g. G.W. Huber, J.W. Shabaker, & J.A. Dumesic, *Science* **300**:2075 (30 June 2003), [www.sciencemag.org/cgi/reprint/300/5628/2075](http://www.sciencemag.org/cgi/reprint/300/5628/2075).

<sup>109</sup> A normal module uses 5.5 MW of electricity and produces 40 million  $\text{m}^3/\text{y}$  of hydrogen, but presumably it could also be smaller. A US\$43-million, 50-million- $\text{m}^3/\text{H}_2/\text{y}$  Canadian plant announced in 1997 claimed 100% carbon utilization and zero pollution; Release, 15 Oct. 1997, "Kvaerner to build 'innovative' carbon black plant in Canada," [www.kvaerner.com/group/](http://www.kvaerner.com/group/).

<sup>110</sup> Opinions differ on whether windpower growth so far has merely "cherry-picked" unusual locations with surplus transmission already built and paid for, and hence whether the growth can continue as this resource is filled up. In some places, windpower may actually free up transmission capacity by supporting the grid at locations where power flow is in net deficit, avoiding the need to transmit power from central thermal generators farther away.

<sup>111</sup> Assuming equivalent marginal transmission investment requirements, if any, for both options.

<sup>112</sup> New nuclear plants, even without counting the marginal cost of electricity delivery, would incur a marginal cost many times (by most independent estimates,  $\sim 4\text{--}8$  times) the old plants' short-run operating cost, or about  $-\$0.08\text{--}0.15/\text{kWh}$  at the busbar, or about  $\$0.10\text{--}0.17/\text{kWh}$  delivered, conservatively assuming no need for grid expansion. This implies that new nuclear plants would need commercial retail gas prices on the order of  $\$36\text{--}62/\text{GJ}$  to compete in delivering electrolytic hydrogen. Those gas prices would be equivalent to oil prices around  $\$210\text{--}360/\text{bbl}$ ,  $\sim 4\text{--}7\times$  the highest world oil prices ever observed. Properly counting the capital costs of the reformer and electrolyzer would also make these nuclear results even more discouraging.

<sup>113</sup> A.B. Lovins *et al.*, *Small Is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size*, RMI, 2002, [www.smallisprofitable.org](http://www.smallisprofitable.org).

<sup>114</sup> A typical General Atomics summary is at [www.ch2bc.org/General%20Atomics/NuclearH2-27June02.pdf](http://www.ch2bc.org/General%20Atomics/NuclearH2-27June02.pdf).

<sup>115</sup> It failed to do so in two of the years 1996–2000, and barely did in the other three.

([www.era.doe.gov/eneaf/electricity/epav2/html\\_tables/epav213pt.html](http://www.era.doe.gov/eneaf/electricity/epav2/html_tables/epav213pt.html)), despite using an incomplete definition of operating costs (particularly by excluding major repairs) and a favorably edited subset of actual costs (note 106).

<sup>116</sup> Experimental thermochemical water-splitting processes driven by nuclear heat, such as the predicted 40–45%-efficient 500°C copper-silver-chlorine process being explored by Argonne National Laboratory, might be cheaper than electrolysis, though most experts expect practical processes, such as the more usual sulfur-iodine cycle, would need at least 700°C (DOE, *A Technology Roadmap for Generation IV Nuclear Energy Systems*, 2003, Findings, p. 17, [www.ne.doe.gov/geniv/Generation\\_IV\\_Roadmap\\_1-31-03.pdf?page=11](http://www.ne.doe.gov/geniv/Generation_IV_Roadmap_1-31-03.pdf?page=11)). However, either way, this looks uncompetitive with natural-gas reforming by a factor of severalfold, so thermochemical water-cracking too is very unlikely to provide an economic rationale for building more nuclear plants. The current Senate energy bill nonetheless includes  $\$1$  billion to build an experimental hydrogen-producing reactor at the Idaho National Engineering Laboratory. Nuclear fusion is even farther from reality and, like all fission fuel cycles, bears significant risks, including nuclear weapons proliferation, because its copious 14-MeV neutrons are effective for breeding fertile materials ( $^{238}\text{U}$  or  $^{232}\text{Th}$ ) into high-grade bomb materials ( $^{239}\text{Pu}$  or  $^{233}\text{U}$ , respectively).

- A.B. Lovins, FreeomCAR, Hypercars, and Hydrogen, invited lead testimony to Energy Subcommittee, U.S. House of Representatives Science Committee, June 26, 2002, [www.rmi.org/sites/pages/pid175.php](http://www.rmi.org/sites/pages/pid175.php).
- <sup>119</sup> R. Wurster & W. Zittel, *Hydrogen Energy*, LBST, Ottobrunn, Germany, 1994, [www.hydrogen.org/Knowledge/main.html](http://www.hydrogen.org/Knowledge/main.html); see also ref. 31.
- <sup>120</sup> See ref. 31.
- <sup>121</sup> See ref. 113.
- <sup>122</sup> Actually the 2004 budget appears to have slightly more R&D dollars for nuclear and fossil fuels than for renewables as hydrogen sources, but perhaps there's more than one way to keep score or he's assuming, in line with Administration policy, that nuclear power is "sustainable."
- <sup>123</sup> D. Garman, *op. cit. supra* (ref. 51).
- <sup>124</sup> A compressed-hydrogen fuel-cell car using steam-reformed natural gas releases only about half as much CO<sub>2</sub> per mile as a normal gasoline car — or as a liquid-hydrogen fuel-cell car using electricity from 60%-efficient gas-fired combined-cycle power stations. However, a compressed-hydrogen fuel-cell car using electrolysis powered by the average U.S. power station (51% of 2001 U.S. electricity was coal-fired) releases nearly four times as much CO<sub>2</sub> per mile as a typical gasoline car. See ref. 53.
- <sup>125</sup> S. Pacala & R. Socolow, "Carbon Mitigation Initiative: Second Year Annual Report," January 2003, [www.princeton.edu/~cmi/summary/Second annual report.pdf](http://www.princeton.edu/~cmi/summary/Second%20annual%20report.pdf), p. 4.
- <sup>126</sup> President's Committee of Advisors on Science and Technology, *Report to the President on Federal Energy Research and Development for the Challenges of the Twenty-First Century, 1997*, p. 6-35, [www.ostp.gov/Energy/index.html](http://www.ostp.gov/Energy/index.html).
- <sup>127</sup> See note 43. The equivalent efficiency at HHV gas input (conventional for purchase contracts and prices) is 80%.
- <sup>128</sup> The Oak Ridge National Laboratory *Transportation Energy Data Book*, 22<sup>nd</sup> edn., at p. 2-6 (ref. 103), states that U.S. domestic light vehicles in 2000 consumed 15,705 quadrillion BTU of gasoline and diesel fuel (HHV). Quintupled efficiency would reduce this to 3.14 QBTU (HHV). At the HHV reformer efficiency of 80%, this requires gas input of 3.83 QBTU (neglecting reformer electric input and net retail compression energy) — 20.2% of 2000 U.S. production of dry natural gas, or 16.3% of 2000 U.S. consumption of natural gas. This is consistent with Shell's scenario (ref. 97) in which a one-fourth-fuel-cell OECD vehicle fleet increases OECD gas demand by ≤5%.
- <sup>129</sup> Interlaboratory Working Group on Energy-Efficient and Clean-Energy Technologies, *Scenarios for a Clean Energy Future*, ORNL/CON-476 and LBNL-44029, 2000, [www.ornl.gov/ORNL/Energy\\_Eff/CEE.htm](http://www.ornl.gov/ORNL/Energy_Eff/CEE.htm), readily identified cost-effective opportunities to save 17% of U.S. 2000 natural-gas consumption by 2020 from a base case that already included significant efficiency gains.
- <sup>130</sup> J.B. McCormick, personal communications, 2002.
- <sup>131</sup> R.W. Jewell, "Natural Gas — What Is Going On?," 18 March 2003, Dow Chemical Company, notes that shaving 5% off the peak U.S. electric load would cut U.S. natural-gas consumption by 1.5 Tcf/y, or one-fifth of power-sector gas consumption, by 10%, 2.3 Tcf/y, or a tenth of the total gas market. This calculation appears to be conservative because it apparently uses average heat rates, whereas the peaking plants that are run least have the worst heat rates (although the fewer hours they run, the less gas they use). RMI is undertaking a more precise calculation.
- <sup>132</sup> Until the U.S. ratifies the Kyoto Protocol, which is expected to enter in force as soon as Russia ratifies it, U.S. industries will be at a competitive disadvantage because they cannot trade carbon reductions as their foreign competitors can. Some private traders are already making private carbon markets in the U.S., but Federal opposition to having any official rules is making the market thinner and less lucrative than it would otherwise be.
- <sup>133</sup> See ref. 53.
- <sup>134</sup> See the Princeton University/BP/Ford Carbon Mitigation Initiative's work at [www.princeton.edu/~cmi/](http://www.princeton.edu/~cmi/).
- <sup>135</sup> I.M. Held & B.J. Soden, "Water Vapor Feedback and Global Warming," *Ann. Rev. En. Env.* **25**:441-475 (2000).
- <sup>136</sup> European studies have shown the value of flying cryoplanes below the tropopause — typically below 28,000 ft (9 km) in summer and 21,000 ft (7 km) in winter — adding only modestly to flight time (because less ascent/descent is required) and ~1-4% to operating cost: W. Zittel & M. Altmann, "Molecular Hydrogen And Water Vapour Emissions In A Global Hydrogen Energy Economy," *Procs. 11<sup>th</sup> World Hydr. En. Conf.* (Stuttgart, 1996), [www.hydrogen.org/knowledge/vapor.html](http://www.hydrogen.org/knowledge/vapor.html), M. Gauss *et al.*, "Impact of H<sub>2</sub>O emissions from cryoplanes and kerone aircraft on the atmosphere," *J. Geophys. Res.* **108**(D10):4304 (21 May 2003), [www.agu.org/pubs/crossref/2003/2002JD002623.shtml](http://www.agu.org/pubs/crossref/2003/2002JD002623.shtml), found that 1 km increase in cruising altitude could double cumulative water vapor additions to the extremely dry air in the stratosphere. They analyzed completely replacing

contrail formation — D.S. Lee *et al.*, "Uncertainties in radiative forcing of climate from aviation contrails and contrail-induced cirrus," *DETRA/AS/PTD/CERAA00103, Defence Evaluation and Research Agency (UK), 2000*, and L. Ström & K. Gierens, *J. Geophys. Res.* **107**(D18):43-46 (2002) — and possibly different short- from long-term effects — [www.op.dlr.de/~pa3u/ast2001.html](http://www.op.dlr.de/~pa3u/ast2001.html). Some 2002 calculations cited by Gauss *et al.* even suggest that cryoplanes could have less contrail impact than kerosene aircraft, so water-vapor impact would dominate. Assuming an all-subsonic-cryoplane fleet so large that it burns twice the current world production of hydrogen, Gauss *et al.* found an increase in radiative forcing at the tropopause by a global average of zero to fivefold depending on season (0.0027–0.0135, averaging 0.0026,  $W/m^2$ ). That average is about 15 times smaller than the avoided  $CO_2$  effect of the same cryoplanes (assuming climate-safe hydrogen), and is about 5% of the 0.05  $W/m^2$  1992 radiative forcing by global subsonic aviation found by the Intergovernmental Panel on Climate Change's 1999 study *Aviation and the Global Atmosphere* ([www.grida.no/climate/ipcc/aviation/index.htm](http://www.grida.no/climate/ipcc/aviation/index.htm)), which in turn was about 3.5% of the total radiative forcing caused by human activities. The IPCC's 1999 (pre-slump) forecasts predicted total radiative forcing of about  $-0.1$ – $0.2$   $W/m^2$  in 2020 and  $0.13$ – $0.56$   $W/m^2$  in 2050. Thus subsonic cryoplanes would be very beneficial if they reduced this to only  $-0.0026$   $W/m^2$ . Gauss *et al.* caution, however, that supersonic cryoplanes could cause a radiative forcing of nearly  $0.05$   $W/m^2$ , comparable to the current subsonic kerosene fleet, and that even with a subsonic fleet, stratospheric and polar flight is to be discouraged.

<sup>137</sup> At [www.eere.energy.gov/hydrogenandfuelcells/codes/faqs.html#needs](http://www.eere.energy.gov/hydrogenandfuelcells/codes/faqs.html#needs).

<sup>138</sup> As an upper bound using extreme assumptions: if all the world's half-billion light vehicles were 5q vehicles as big and capable as the *Revolution* concept SUV, each driven the U.S. average of about 11,000 miles per year, they'd emit half a billion metric tons of water per year. If this water were all "new" (none from electrolysis or steam reforming), it would add 0.004% per year to the atmospheric water inventory. For comparison, the carbon dioxide concentration in the atmosphere rose in the 1990s by half a percent per year, or two orders of magnitude more.

<sup>139</sup> Zittel & Altmann, *op. cit. supra*, ref. 136.

<sup>140</sup> J. Bell, in Sierra Club Energy Forum, [www.sierraclub.org/powerlunch/topic13.asp](http://www.sierraclub.org/powerlunch/topic13.asp), with reply from Ned Ford, and "Is Hydrogen Risky Business?," *E Magazine*, May/June 2003, p. 8, with reply from D.J. Friedman, [www.emagazine.com/may-june\\_2003/0503advdis.html](http://www.emagazine.com/may-june_2003/0503advdis.html); also posted under "Using Hydrogen Gas to Store Intermittent Renewable Energy" at [www.jimbelle.com/theway.html#hydrogen](http://www.jimbelle.com/theway.html#hydrogen), 3 September 2002. Mr. Bell has since withdrawn his concerns on this issue, subject to any future discoveries (pers. comm., 28 May 2003).

<sup>141</sup> Only tiny traces of molecular hydrogen ( $\sim 0.51$  ppm or  $\sim 180$ – $200$  MT  $H_2$ ) are found in the Earth's atmosphere, often due to reactions related to automobile pollution: D.H. Barnes *et al.*, "Hydrogen in the atmosphere: Observations above a forest canopy in a polluted environment," *J. Geophys. Res.* **108**(D6):4197 (2003), [www.agu.org/pubs/crossref/2003/2001JD001199.shtml](http://www.agu.org/pubs/crossref/2003/2001JD001199.shtml), and for a broader survey, Zittel & Altmann, *op. cit. supra*, ref. 136.

<sup>142</sup> Total methane emissions from all fossil-fuel activities are estimated by the 2001 Intergovernmental Panel on Climate Change to be  $\sim 89$ – $110$  million T/y, equivalent to 6% of 2000 natural-gas production of 2.4 trillion  $m^3$  or 1.6 billion T, but most of that is gas leaking from coal beds; only about 1% of natural-gas throughput leaks from natural-gas wells, compressors, pipelines, retail distribution systems, and other facilities. Older figures for the former Soviet bloc cited gas losses around 7–20%, but most of that was theft, and the much smaller fraction that was actual leaks has been or is being fixed; e.g., total losses from a West Siberian field to Central Europe, over 6,000 km away, were measured at  $\sim 1\%$  in 1996–97 (*Annex "Full Background Report" to the GM Well-to-Wheel Analysis of Energy Use and Greenhouse Gas Emissions of Advanced Fuel/Vehicle Systems — A European Study*, L-B-Systemtechnik GmbH (OttoBrunn, Germany), [www.lbst.de/gm-wtw](http://www.lbst.de/gm-wtw), pp. 74–75). Total U.S. natural gas "leaks and flares," nearly all of it actually flares rather than leaks, totaled 1.1% of 1996 production and falling; the worldwide total is probably scarcely higher, and in industrial countries, it's probably down to only  $\sim 0.1$ – $0.5\%$ , with 0.05% possible in new distribution systems (M. van Walwijk, M. Bückmann, W.P. Troelstra, & P.A.J. Achten, *Automotive Fuels Survey: Part 2. Distribution and Use*, Dec. 1976, p. 176, International Energy Agency (IEA/AFIS), Paris, [www.iea.org/tech/infocentres/AFIS.htm](http://www.iea.org/tech/infocentres/AFIS.htm)). A 0.05% leakage rate is reported by the Italian pipeline system of SNAM Rete Gas, and 0.2% by the whole system of Gas Natural España. See M.Q. Wang & H.-S. Huang, *A Full Fuel-Cycle Analysis of Energy and Emissions Impacts of Transportation Fuels Produced from Natural Gas*, ANL/ESD-40, 1999, Argonne National Laboratory, [www.transportation.anl.gov/pdfs/TA/13.pdf](http://www.transportation.anl.gov/pdfs/TA/13.pdf), at p. 36; M.Q. Wang, *REET 1.5 — Transportation Fuel-Cycle Model*, Vol. 1, pp. 57–59, ANL/ESD-39, Vol. 1, August 1999, <http://www.ipcd.anl.gov/> [ANLpubs/1999/10/34035.pdf](http://www.ipcd.anl.gov/ANLpubs/1999/10/34035.pdf), and further GRI/EPA, EIA, Canadian, GM, and IEA data kindly provided by Dr. Wang

<sup>145</sup> *Id.*  
<sup>146</sup> See <http://smallemcomets.physics.uiowa.edu/>.

<sup>147</sup> The small comets add on the order of a million metric tons of water per day (*id.*). In contrast, rather high (1% leakage and 100% atmospheric escape (*vs.* ~0.04% actual) from a hydrogen economy relying solely on splitting surface water, and providing the same amount of delivered energy as today's global energy system does (hence delivering a lot more services than today's ~420 EJ/y does, since hydrogen's end-use is more efficient than that of fossil fuels), would lose ~90 kT/d of hydrogen, equivalent to about 0.8 MT/d of water — near the low end of the range for small-comet additions.

<sup>148</sup> T.K. Tromp, R.-L. Shia, M. Allen, J.M. Eiler, & Y.L. Yung, "Potential Environmental Impact of a Hydrogen Economy on the Stratosphere," *Science* **300**:1740–1742 (13 June 2003).

<sup>149</sup> Zittel & Altmann, ref. 136.

<sup>150</sup> S.A. Sherif, N. Zeytinoglu, & T.N. Veziroglu, "Liquid hydrogen: potential, problems, and a proposed research program," *Int'l. J. Hydr. En.* **22**, 683 (1997).

<sup>151</sup> Québec-to-Hamburg liquid-hydrogen barges could have zero boiloff if properly insulated: W. Zittel, Ludwig-Bölkow-Systemtechnik GmbH, [zittel@lbst.de](mailto:zittel@lbst.de), personal communications, 16 and 17 June 2003, [www.l-b-systemtechnik.com/e/Projekte/Euro\\_Quebec\\_Phase\\_II\\_82-90.htm](http://www.l-b-systemtechnik.com/e/Projekte/Euro_Quebec_Phase_II_82-90.htm) (summary), and J. Gretz, B. Drolet, D. Kluykens, F. Sandmann, & O. Ullmann, "Phase II and Phase III, 0 of the 100 MW Euro-Quebec Hydro-Hydrogen Pilot Project EQHHP, *Proc.*, 9<sup>th</sup> World Hydr. En. Conf., Paris, 22–25 June 1992, pp. 1821–1828.

<sup>152</sup> The fuel tanks of cryoplanes, unlike those of space rockets, would be kept cold continuously by refueling at each stop, would be depleted soon after each refueling, would use their boiloff for fuel, and would spend most of their time in the cold of the upper atmosphere rather than sitting at ground level. Major airports would use very large (hence low-boiloff) tanks fed by cryogenic pipelines, not by small truck- or railborne tanks, and could use boiloff to fuel stationary generators. A full 2015 global fleet of cryoplanes would use ~96 MT/y of LH<sub>2</sub> (S. Marquart, R. Sausen, M. Ponater, & V. Grewe, "Estimate of the Climate Impact of Cryoplanes," *Aerosp. Sci. Technol.* **5**, 73–84 (2001)) — 10<sup>-1</sup> of total H<sub>2</sub> usage in a global all-H<sub>2</sub> economy using no renewable energy directly. Actual cryoplane H<sub>2</sub> consumption should also be reduced by the greater efficiency of cryoplanes (see ref. 50).

<sup>153</sup> E.g., the current German industrial hydrogen system's 0.1% leak rate plus a bit more for retail distribution and some special but minor losses associated with fueling and operating fuel-cell vehicles. Prospective leak rates for entire hydrogen systems are being carefully assessed by Dr. Mark A. Delucchi at the University of California/Davis.

<sup>154</sup> A.B. Lovins, letter submitted 17 June 2003 to *Science*, to be posted at [www.rmi.org](http://www.rmi.org). Other authors have also pointed out additional problems with the CalTech authors' analysis.

<sup>155</sup> The 2001 U.S. average commercial-sector electricity tariff of \$0.0791/kWh is equivalent in heat content to crude oil at ~\$134/bbl or to gasoline at \$2.90/USgal (HHV), not counting relative end-use efficiencies.

<sup>156</sup> See ref. 22.

<sup>157</sup> This concept car was shown at the 2003 North American Auto Show in Detroit. Its mass, acceleration, drag, and cargo volume were not revealed. Based on the *Focus* small-SUV platform, it uses unusual materials, modularity, and other features officially summarized at [www.ford.com/en/vehicles/autoShows/detroit2003/ford\\_model1/default.htm](http://www.ford.com/en/vehicles/autoShows/detroit2003/ford_model1/default.htm). Its H<sub>2</sub>-optimized 2.3-L 4-cylinder engine, despite supercharging and two-stage intercooling, becomes about one-fourth more efficient but is derated 22%, requiring 3.6 kWh of storage and a 35-kW torque-boosting electric motor. For a 300-mile range, the 7 kg of 700-bar H<sub>2</sub> is stored in four tanks under a subfloor, making the vehicle quite high. Fuel economy is equivalent to 45 mpg (5.2 L/100 km), less than half that of the larger *Revolution* fuel-cell concept car but 69% better than the equivalent automatic-transmission 2003 *Focus* base model at 26.7 mpg (8.8 L/100 km).

<sup>158</sup> This assumes that the car is fueled only with hydrogen rather than with both hydrogen and gasoline, for three reasons: the nuisance of having to insert two fuels, the difficulty of optimizing one engine for two such different fuels (requiring, for example, different injectors), and gasoline's compromises in efficiency and emissions.

<sup>159</sup> C.E. Thomas, personal communication, 4 June 2003.

<sup>160</sup> C.E. Thomas, "Hydrogen-Fueled Vehicles: Hybrids vs. Fuel Cells," *Int'l. Veh. Technol. Sympos on Clim. Change*, Calif. Air Resources Board (Sacramento), 11–13 March 2003, [www.h2gen.com/PDF\\_Documents/GHG-HEV\\_vs\\_FCV\\_Rev\\_B.pdf](http://www.h2gen.com/PDF_Documents/GHG-HEV_vs_FCV_Rev_B.pdf).

<sup>161</sup> *Id.*

<sup>162</sup> *Id.*



<sup>163</sup> For example, Hypercar, Inc.'s 5-seat *Revolution* concept car has the same curb mass and drag coefficient as the *Insight* — albeit higher frontal area — mainly because carbon fiber is so much lighter than even aluminum.

<sup>164</sup> A.B. Lovins et al., *Out of the Oil Box: A Roadmap for U.S. Mobilization*, RMI, in preparation, 2003.

White paper published at [www.rmi.org](http://www.rmi.org) and summarized at [www.rmi.org/sitepages/art7516.php](http://www.rmi.org/sitepages/art7516.php)  
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### *Abstract*

Recent public interest in hydrogen has elicited a great deal of conflicting, confusing, and often ill-informed commentary. This peer-reviewed white paper offers both lay and technical readers, particularly in the United States, a documented primer on basic hydrogen facts, weighs competing opinions, and corrects twenty widespread misconceptions. It explains why the rapidly growing engagement of business, civil society, and government in devising and achieving a transition to a hydrogen economy is warranted and, if properly done, could yield important national and global benefits.

### *About the author*

Physicist Amory Lovins is cofounder and CEO of Rocky Mountain Institute ([www.rmi.org](http://www.rmi.org)) and Chairman of Hypercar, Inc. ([www.hypercar.com](http://www.hypercar.com)), RMI's fourth for-profit spinoff (in which, to declare an interest, he holds minor equity options). Published in 28 books and hundreds of papers, his work has been recognized by the "Alternative Nobel," Onassis, Nissan, Shingo, and Mitchell Prizes, a MacArthur Fellowship, the Happold Medal, eight honorary doctorates, and the Heinz, Lindbergh, World Technology, and "Hero for the Planet" Awards. He has advised industry and government worldwide on energy, resources, environment, development, and security for the past three decades.

### *About the publisher*

Rocky Mountain Institute is an independent, entrepreneurial, nonprofit applied research center founded in 1982. Its ~50 staff foster the efficient and restorative use of resources to make the world secure, just, prosperous, and life-sustaining. The majority of its ~\$7-million annual revenue is earned by consultancy, chiefly for the private sector; the rest comes from foundation grants and private gifts. Much of the context of its work is summarized in *Natural Capitalism* ([www.natcap.org](http://www.natcap.org)). Donations are welcome and tax-deductible (#74-2244146). RMI is at 1739 Snowmass Creek Road, Snowmass, CO 81654, phone + 1 970 927-3851, fax -4178.

## Twenty myths 8

- Myth #1. A whole hydrogen industry would need to be developed from scratch. 8*
- Myth #2. Hydrogen is too dangerous, explosive, or "volatile" for common use as a fuel. 9*
- Myth #3. Making hydrogen uses more energy than it yields, so it's prohibitively inefficient. 10*
- Myth #4. Delivering hydrogen to users would consume most of the energy it contains. 12*
- Myth #5. Hydrogen can't be distributed in existing pipelines, requiring costly new ones. 13*

### Box 1: RMI's hydrogen transition strategy 12

- Myth #6. We don't have practical ways to run cars on gaseous hydrogen, so cars must continue to use liquid fuels. 14*
- Myth #7. We lack a safe and affordable way to store hydrogen in cars. 16*

### Box 2: An example of a hydrogen-ready concept car 18

- Myth #8. Compressing hydrogen for automotive storage tanks takes too much energy. 19*
- Myth #9. Hydrogen is too expensive to compete with gasoline. 20*
- Hydrogen pure enough for fuel cells would cost ~\$15-22/kg. 21
- Myth #10. We'd need to lace the country with ubiquitous hydrogen production, distribution, and delivery infrastructure before we could sell the first hydrogen car, but that's impractical and far too costly — probably hundreds of billions of dollars. 21*
- Myth #11. Manufacturing enough hydrogen to run a car fleet is a gargantuan and hugely expensive task. 22*
- Myth #12. Since renewables are currently too costly, hydrogen would have to be made from fossil fuels or nuclear energy. 22*
- A hydrogen economy would require the construction of many new coal and nuclear power stations (or perhaps nuclear fusion stations). 24
  - A hydrogen economy would retard the adoption of renewable energy by competing for R&D budget, being misspent, and taking away future markets. 24
  - Switching from gasoline to hydrogen will worsen climate change unless we do a large amount of successful carbon sequestration. 26
  - Making hydrogen from natural gas would quickly deplete our gas reserves. 26
- Myth #13. Incumbent industries (e.g., oil and car companies) actually oppose hydrogen as a competitive threat, so their hydrogen development efforts are mere window-dressing. 27*
- Myth #14. A large-scale hydrogen economy would harm the Earth's climate, water balance, or atmospheric chemistry. 28*
- Using hydrogen would release or consume too much water. 28
  - Using hydrogen would consume too much oxygen. 29
  - Using hydrogen would dry out the Earth by leaking hydrogen to outer space. 30
  - Using hydrogen would harm the ozone layer or the climate by leaking too much water-forming and chemically reactive molecular hydrogen into the upper atmosphere. 30
- Myth #15. There are more attractive ways to provide sustainable mobility than adopting hydrogen. 32*
- We should run cars on natural gas, not hydrogen. 32
  - We should convert existing cars to carry both gasoline and hydrogen, burning both in their existing internal-combustion engines, to create an early hydrogen market and reduce oil dependence and urban air pollution. 32

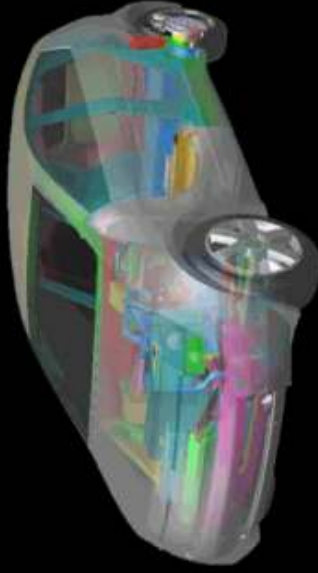
- Myth #16. Because the U.S. car fleet takes roughly 14 years to turn over, little can be done to change car technology in the short term. 35*
- Myth #17. A viable hydrogen transition would take 30–50 years or more to complete, and hardly anything worthwhile could be done sooner than 20 years. 36*
- Myth #18. The hydrogen transition requires a big (say, \$100–300 billion) Federal crash program, on the lines of the Apollo Program or the Manhattan Project. 36*
- Myth #19. A crash program to switch to hydrogen is the only realistic way to get off oil. 37*
- Myth #20. The Bush Administration's hydrogen program is just a smokescreen to stall adoption of the hybrid-electric and other efficient car designs available now, and wraps fossil and nuclear energy in a green disguise. 37*

*Acknowledgments 38*

*Notes 38–49*

*Rocky Mountain Institute Quest for Solutions (RMIQ) Public Lecture  
Given Institute, Aspen, Colorado, 6 August 2003*

## Hydrogen: The Future of Energy



### **Amory B. Lovins**

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## Why is hydrogen so important?

- ◇ New, highly versatile energy carrier
- ◇ Cleaner, safer *and* cheaper fuel choice
- ◇ When combined with super-efficient fuel cell vehicles, enables a profitable transition from oil — profitable even for oil companies
- ◇ In a hydrogen economy, U.S. energy needs can be met from North American energy sources (including local ones), providing real security
- ◇ Hydrogen can accelerate renewable energy sources, which also have stable prices
- ◇ Hydrogen-ready vehicles can revitalize Detroit





## The hydrogen cacophony (see "Twenty Hydrogen Myths," [www.rmi.org](http://www.rmi.org))

- ◇ Rapidly growing interest due to climate and security concerns
- ◇ Unfamiliar terms and concepts, many disciplines
- ◇ Speculation: winners, losers, hidden agendas?
  - Reinforce dominant incumbents, displace, or diversify?
  - Foolishness, panacea, or misleading and double-edged?
- ◇ Debate is overlaid on rancorous old debates
  - Oil, nuclear, renewables, climate, big business, right/left,...
- ◇ Unexpected realignments, strange bedfellows
  - Environmentalists: If President Bush, oil companies, and the nuclear industry like it, it must be bad
  - *Wall St. J.* editorial: If enviros like it, it must be bad
- ◇ Both advocates *and* opponents often poorly understand it!





## We already have, invisibly, a partly hydrogen economy

- ◇ Two-thirds of the fossil-fuel atoms being burned today are hydrogen...as a part of hydrocarbons
- ◇ A large hydrogen industry exists today: it produces 1/4 the annual volume of the natural-gas industry worldwide
- ◇ The debate is about:
  - Whether we also need to combust the last third (carbon)
  - Whether it might be cheaper and more attractive not to burn the carbon, but to use only the hydrogen
  - To what degree and at what speed the fossil-fuel hydrogen should be replaced by renewable hydrogen
  - How renewable hydrogen will compete with hydrogen produced by nuclear fission (or eventually fusion?) power
  - At what scale
  - Who does it
  - Who decides and how







## **I'll address pervasive myths with answers to eight questions:**

- ◇ What is hydrogen?
- ◇ Is hydrogen safe?
- ◇ Why is hydrogen cheaper to use for vehicles?
- ◇ How is hydrogen now produced and used?
- ◇ What is the least-cost way to make and deliver hydrogen?
- ◇ What technologies are needed to enable a hydrogen transition?
- ◇ How can the U.S. profitably transition from oil to hydrogen?
- ◇ Are there enough North American primary energy sources for this transition?





## What is it? Basic hydrogen facts

- ◇ Hydrogen is ~75% of the known universe
- ◇ On earth, it's not an energy source like oil or coal
  - Only an energy *carrier* like electricity or gasoline — a form of energy, derived from a source, that can be moved around
- ◇ The most versatile energy carrier
  - Can be made from any source and used for any service
  - Readily stored in large amounts
  - Fungible with the other highest-quality carrier, electricity
- ◇ Almost never found by itself; must be liberated
  - "Reform" HCs or CHs with heat and catalysts
  - "Electrolyze" water (split H<sub>2</sub>O with electricity)
  - Experimental methods: photolysis, plasma, microorganisms,...
- ◇ Can be made and used at any scale





## Physical attributes of hydrogen

- ◇ Transparent, colorless, odorless, nontoxic
- ◇ Molecular hydrogen ( $H_2$ ) is the lightest element and molecule
  - Per unit of energy contained,  $H_2$  is 64% lighter than natural gas or 61% lighter than gasoline
- ◇ 1 kg of  $H_2$  contains same energy as 1 U.S. gallon of gasoline, which weighs not 2.2 but 6.2 pounds
- ◇ The flip side of lightness is bulk
  - $H_2$  has 30% the energy of  $CH_4$ , both at atmospheric pressure
  - $H_2$  at 170 bar pressure has 6% the energy/volume of gasoline
- ◇  **$H_2$  is advantaged if lightness is worth more than compactness**



# Is it safe?: A primer on Hydrogen safety

- ◇ All fuels are hazardous, but...
- ◇ Hydrogen is comparably or less so, but different
  - Buoyant (8x CH<sub>4</sub>), diffusive (4xCH<sub>4</sub>, 12x gasoline)
  - Clear flame can't see you at a distance; no smoke
  - Hard to make explode; can't explode in free air; burns first
  - 4x gasoline-fume concentration required to burn; 22x less explosive power
  - Rises, doesn't puddle
  - *Hindenburg* myth (1937) — *nobody* was killed by hydrogen fire
  - Completely unrelated to hydrogen bombs



# Demonstrating hydrogen vs. gasoline safety

M.R. Swain, "Fuel Leak Simulation," [www.eren.doe.gov](http://www.eren.doe.gov), 2002.



0 s: Ignition.  $H_2$  @ 28 L/min, gasoline @ 0.68 L/min



60 s:  $H_2$  flow subsiding; max  $47^\circ C$  on rear window,  $19.4^\circ C$  on tray behind rear seat. Zooming in on gasoline car...



140 s:  $H_2$  plume nearly stopped.



140 s: Gasoline-car interior alight. Tires later burst.



## Why is it cheaper? Basic hydrogen economics

- ◇ The most common fallacy is comparing hydrogen to other fuels in cost per unit of energy contained
- ◇ What matters is cost per unit of service provided
- ◇ *E.g.*, a hydrogen fuel cell can propel a car 2–3x as efficiently as a gasoline engine car, so even if H<sub>2</sub> cost twice as much per unit of energy, it would cost the same or less *per mile driven*
- ◇ Recovered heat from the fuel cell (and reformer), clean and silent operation, high-quality and ultra-reliable power supply, and many other “distributed benefits” may also have a big value





# Hydrogen cars will be cheaper per mile driven

## ◇ Gasoline



- Gasoline
- Diesel

## ◇ Reformation



- Natural Gas
- Biofuel





# Well-designed hydrogen cars will be cheaper per mile driven

## Gasoline



- Gasoline
- Diesel

## Reformation



- Natural Gas 72% (LHV) conversion eff.
- Biofuel
- \$6/million Btu

## Electrolysis



- Hydro
- Offpeak wind 3¢/kWh del. 'd.



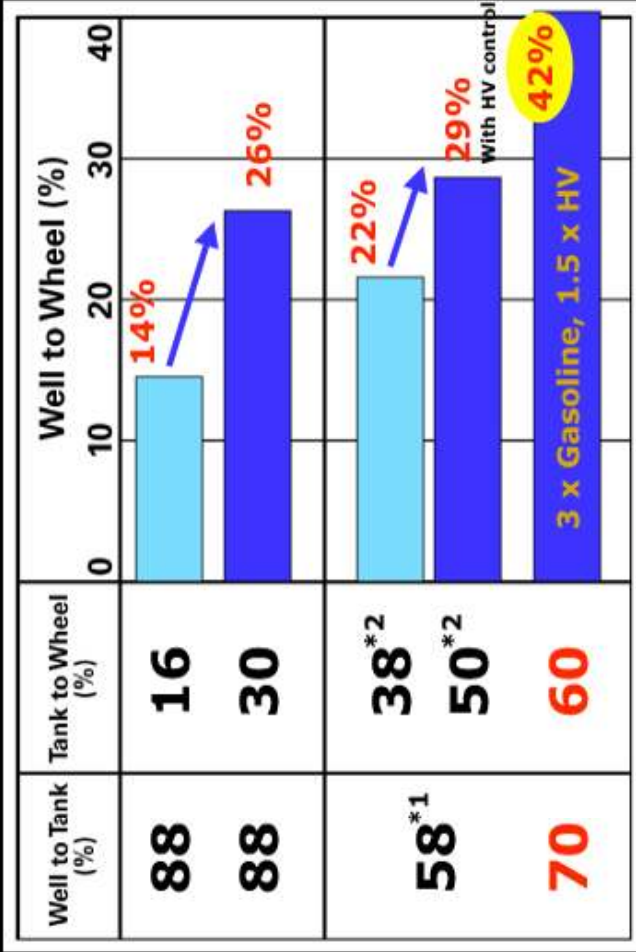


# Well-to-Wheels Efficiency

Gasoline Vehicle  
*Prius*  
(Gasoline HV)

Hydrogen FCV  
FCHV-4

FCHV  
(Target)



Japanese 10-15 Mode

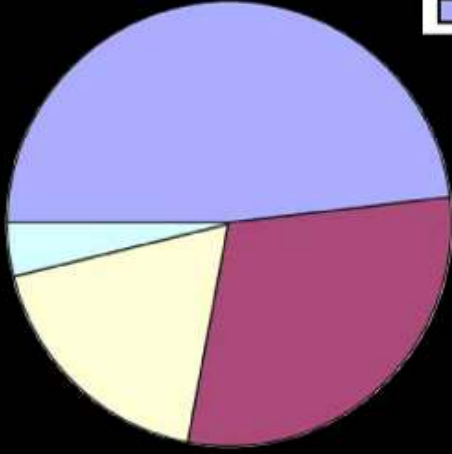
Toyota's estimation

\*1 Natural gas base \*2 Measurement from the electric current



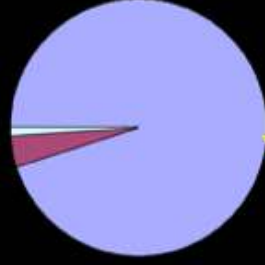
# How is hydrogen now produced?

## World



~50 million tonnes/  
y global H<sub>2</sub> output,  
growing ~6-7%/y

## U.S.



8% of U.S.

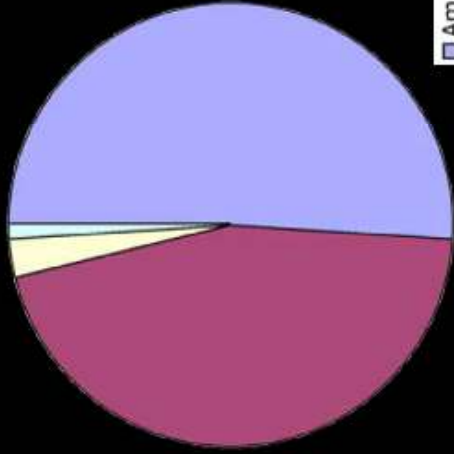
natural gas is  
used to make H<sub>2</sub>





# How is hydrogen now used?

## World



## U.S.



~7 million tonnes/y used to make gasoline and diesel fuel

■ Ammonia fertilizer

■ Oil refining

■ Chemicals

■ Food, microchips, metals, etc.





## “Making hydrogen uses more energy than it yields”

- ◇ Of course! The laws of physics require that *any* conversion from one form of energy to another yield less useful energy than you start with — otherwise it'd be a perpetual-motion machine
  - Making gasoline from crude oil is ~73–91% efficient
  - Making coal into delivered electricity is ~29–35% efficient
  - We make these energy carriers because they're worthwhile
- ◇ Hydrogen production is quite efficient
  - ~70–82% efficient from natural gas, 75–80+% from electricity (but  $\times 1.15$  to measure the same way as for fossil fuels)
  - The rest is heat that may also be recaptured and reused
  - Conversion efficiencies continue to rise; losses may be halved
- ◇ H<sub>2</sub>'s 2–3 $\times$  greater end-use efficiency in fuel cells richly justifies the costs and losses of producing it



## How to make least-cost H<sub>2</sub>

- ◇ Proven, cost-effective, climate-safe methods already exist
- 1. Reform natural gas at the wellhead and reinject the CO<sub>2</sub>
  - Reforming (~8% of U.S. gas now) & reinjection (32 MT/y) are mature
    - > Potentially three profit streams: H<sub>2</sub>, +CH<sub>x</sub>, -C
- 2. Electrolyze with climate-safe electricity (hydropower, offpeak windpower)
  - Greatly improves renewable economics if electricity is converted to H<sub>2</sub> and sold as motor fuel
    - > U.S. gasoline at \$1.25/gallon is equivalent at the wheels to \$0.09–0.14/kWh electricity with a proton attached to each electron — so run dams in “Hydro-Gen” mode, shipping compressed hydrogen (a value-added product) instead of kWh (a raw commodity)
    - > H<sub>2</sub> storage makes wind/PV power firm and dispatchable
- 3. In the future, hydrogen from coal, oil, and biomass (and perhaps experimental solar methods) will further hone competition...but we need only one solution and have at least two





## “Hydrogen takes too much energy to deliver”

- ◇ The Myth: since  $H_2$  is so light, “its physical properties are incompatible with the requirements of the energy market...because production, packaging, storage, transfer and delivery...are so energy consuming....” — Bossel & Eliasson
  - They catalogued the delivery methods that the industry has already rejected for this reason (outside special niche markets) — very long pipelines, liquid  $H_2$ , steel tube trucks,...
  - They considered only the costliest production method (electrolysis, which has 4% of the world market)
  - They considered only centralized production, incurring its high distribution costs
  - Their assessment is useful for helping others to understand (as hydrogen experts already do) how *not* to design a hydrogen economy, but gives no reasons not to design one correctly



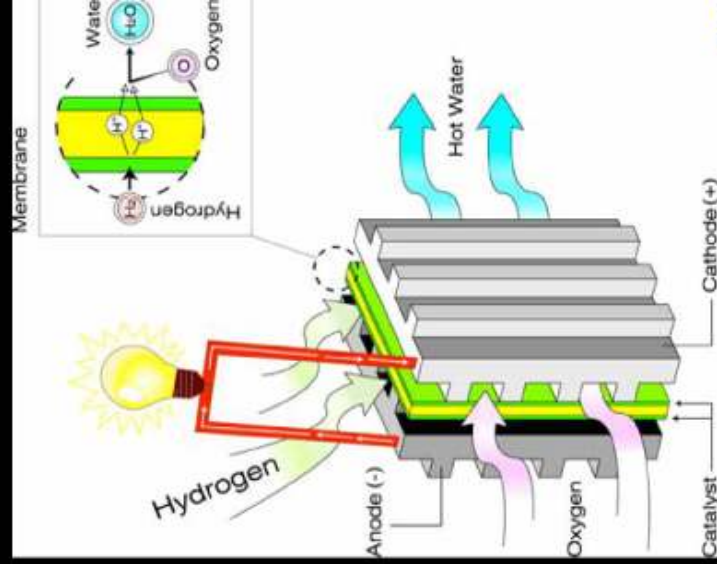
## How should we deliver hydrogen?

- ◇ Use the cheapest method by fully utilizing the existing, paid-for gas and electricity infrastructure
- ◇ Both centralized and distributed architectures
  - Centralized natural-gas reformers may or may not ultimately prove cheaper and more efficient than miniature ones
  - Distributed solution: small-scale reformers and electrolyzers
  - Cost <10% of a gas station's capital cost, or  $\sim 2^{1/2}\%$  of the investment in the station *plus* its upstream oil supply
  - As with diesel fuel, fewer than one-third of filling stations need conversion
  - Deutsche Shell said it could install hydrogen in all German stations in two years
  - Integrate with deployment of fuel cells in buildings
- ◇ Central solution: merchant hydrogen production at refineries near urban centers with pipelines



## Fuel cells — key to the hydrogen transition

- The most efficient way to make electricity; ~50–70% efficient (the rest is recoverable heat)
- Extremely reliable, virtually silent, few or no moving parts, no combustion
- Fully scaleable

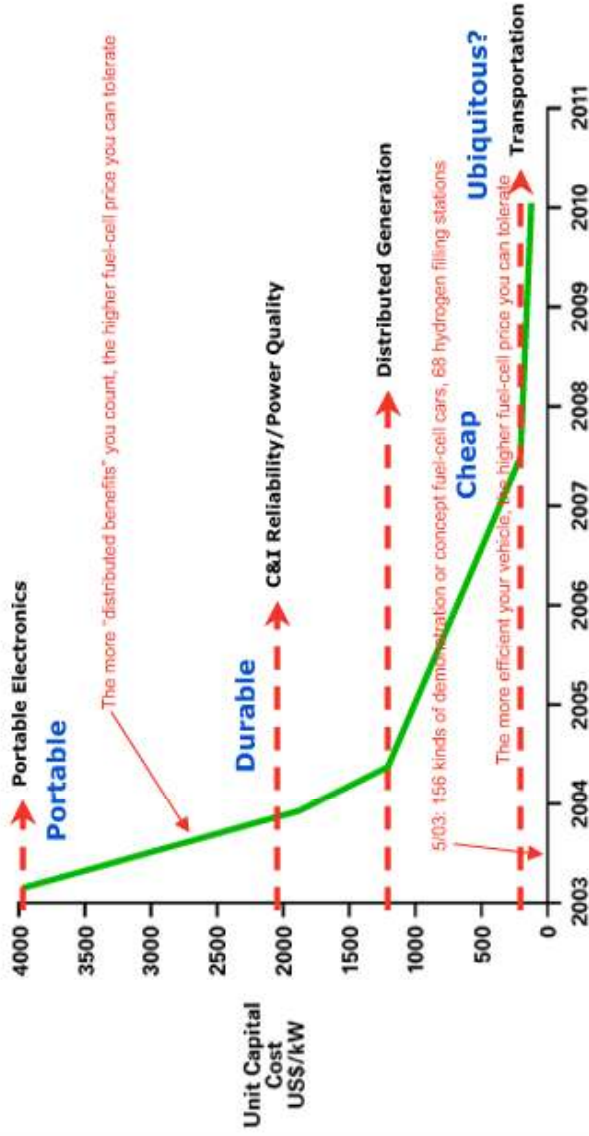




# Fuel cells are already viable

## Fuel Cell Competitive Price Points

(1993–2003 Cost Reduction: % catalyst ÷ 20, cost ÷ 10, vol./kW ÷ 10)



We can make the price drop happen faster and more surely...

## Making cars ready for hydrogen

- ◇ **Standard fuel-cell car:** insert fuel cell in near-normal, high-tractive-load platform
- ◇ Fuel cell is too big and costly, so must sell many units at a loss (or wait a long time) to bring cost down
- ◇ H<sub>2</sub> tanks are too big to package, so need onboard methanol or gasoline reformer
- ◇ Reformer hell

- ◇ **Direct-hydrogen fuel-cell car:** ultralight, ultra-low-drag platform can use any driveline and fuel, but is peculiarly well suited to direct-hydrogen fuel cell
- ◇ Fuel cell is small enough to afford, even at early prices
- ◇ Now-commercial H<sub>2</sub>-gas tanks for normal range are small enough to package — **no storage problem**
- ◇ No reformer, high efficiency
- ◇ Can produce cars as soon as fuel cells are ready



## **an uncompromised, same-cost, 5x-efficiency midsize SUV**

- ◇ 5 adults in comfort, up to 69 ft<sup>3</sup> of cargo
- ◇ hauls 1,012 lb up a 44% grade
- ◇ 1,889 lb (47% mass of Lexus RX300)
- ◇ sim. head-on wall crash @ 35 mph does not damage passenger compartment
- ◇ sim. head-on collision with car 2x its mass each @ 30 mph, prevents serious injury
- ◇ 0-60 mph in 8.2 seconds
- ◇ 99mpg (2.38L/100 km, 42km/L, 5xRX300)
- ◇ 330 mi on 7.5 lb safely stored 5-kpsi H<sub>2</sub>
- ◇ 55 mph on just normal a/c energy
- ◇ zero-emission (hot water)
- ◇ sporty, all-wheel digital traction
- ◇ ultra-reliable, software-rich, flexible
- ◇ wireless diagnostics/upgrades/tuneups
- ◇ 200k-mi warranty; no fatigue, dent, rust
- ◇ competitive manufacturing cost expected
- ◇ decisive mfg. advantages—≤90% less capital, space, assembly, parts count
- ◇ initial production could ramp up ~2007



© 2000 Hypercar, Inc.

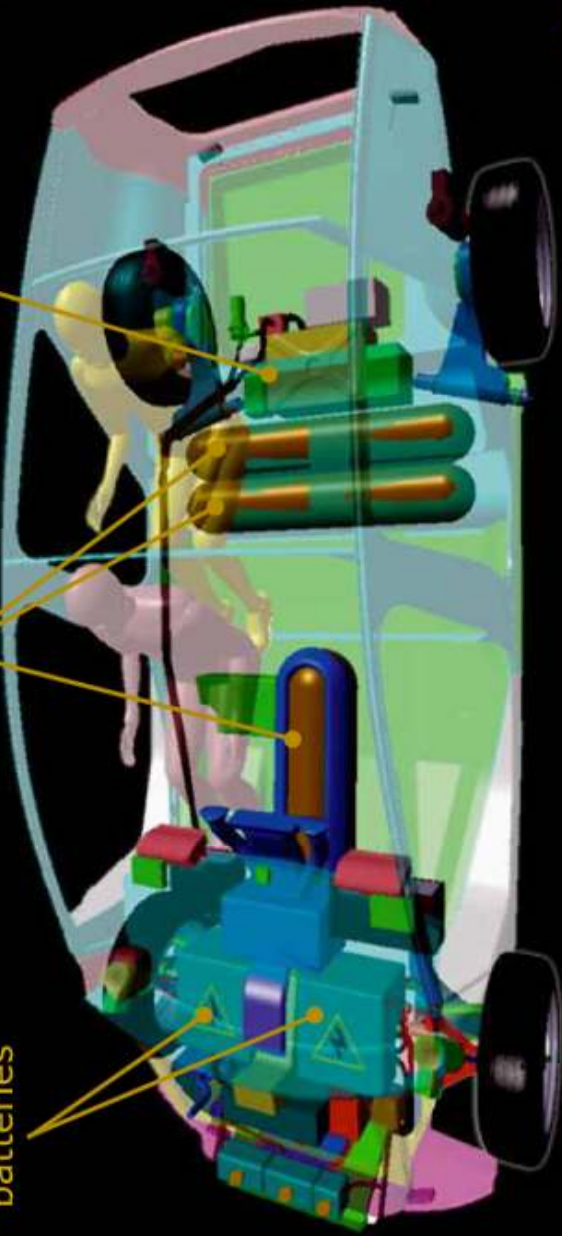
***illustrative, production-  
tested, manufacturable  
concept car developed for  
few million dollars in  
eight months in 2000 by  
Hypercar, Inc. (www.  
hypercar.com) — on time,  
budget, with attributes  
never before combined  
in a single vehicle***

**55 mph on same power as normal a/c, so ready now for direct hydrogen fuel cells**

137-liter 5-ksi H<sub>2</sub> storage  
(small enough to package)

35-kW fuel cell (small enough to afford early)

35-kW load-leveling batteries





## Ready or not, here it comes

---

- ◇ The chairs of four major oil companies and several major car companies have said we're entering the oil endgame and starting the hydrogen era
- ◇ Royal Dutch/Shell Group Planning scenario in 2001 envisaged a China-led hydrogen leapfrog
  - H<sub>2</sub> would fuel 1/4 of the industrialized world's vehicles in 2025
  - World oil remains stagnant to 2025, then falls
  - China is already on this path, for compelling strategic reasons
- ◇ U.S. & E.U. committed >\$3b to H<sub>2</sub> R&D in 2003
- ◇ Private sector has committed far more





## “Insoluble chicken-and-egg problem” to get to H<sub>2</sub> cars

- ◇ Nobody would want a H<sub>2</sub> car with nowhere to fuel it, nor invest to make H<sub>2</sub> with nobody to buy it
- ◇ It's normally assumed to be too costly to cover the country with H<sub>2</sub> infrastructure before selling H<sub>2</sub> cars — probably hundreds of billions of dollars
- ◇ This actually costs less than normal investments in oil-based infrastructure — and can be self-financing
- ◇ Key to transition: *integrate* deployment of fuel cells in buildings and in vehicles



# How a rapid, profitable H<sub>2</sub> transition would work

H<sub>2</sub> ready  
Hypercars

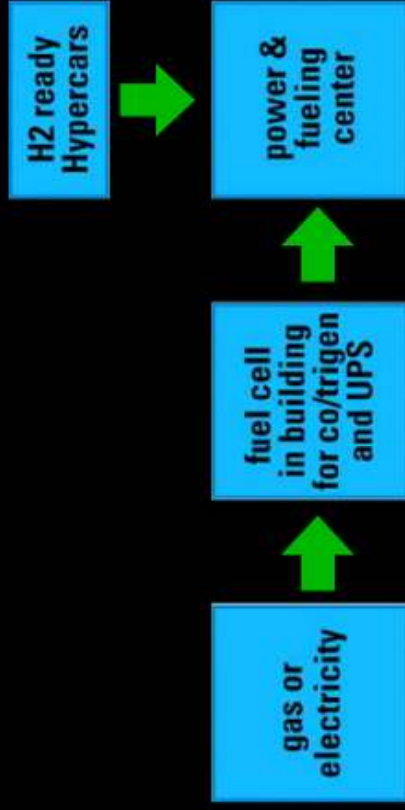
gas or  
electricity

fuel cell  
in building  
for co/trigen  
and UPS

Buildings use 2/3  
of US electricity



# How a rapid, profitable H<sub>2</sub> transition would work



First fleets, then drivers who work in or near buildings that have fuel cells

Buildings use 2/3 of US electricity

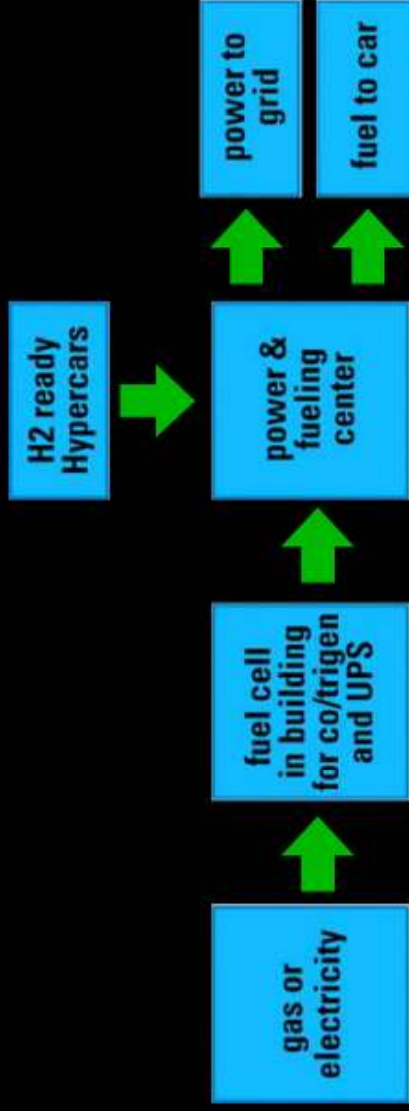
Hydrogen appliance is sized for peak building loads that seldom occur

Marginal investment in H<sub>2</sub> compression, storage, and fueling, car-to-grid connection, and more durable fuel cell US fleet has potential of 5-10 TW (6-12x US capacity)





# How a rapid, profitable H<sub>2</sub> transition would work

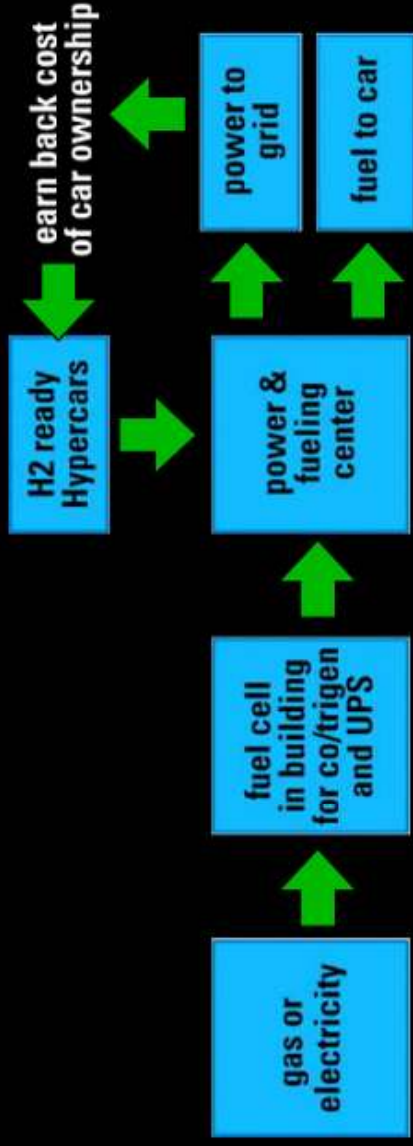


Buildings use 2/3 of US electricity

Marginal investment in H<sub>2</sub> compression, storage, and fueling, car-to-grid connection, and more durable fuel cell  
US fleet has potential of 5-10 TW (6-12x US capacity)



# How a rapid, profitable H<sub>2</sub> transition would work

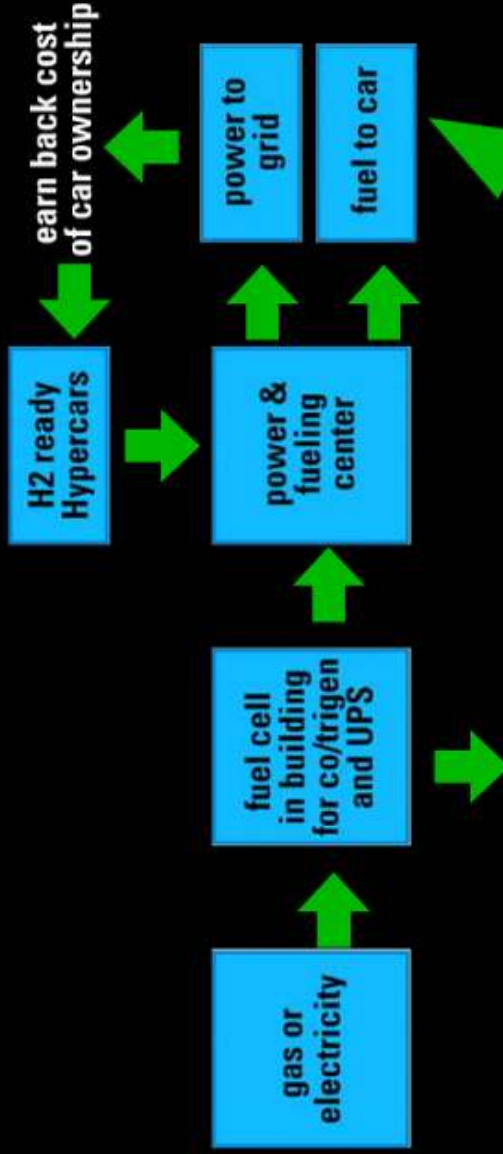


Buildings use 2/3 of US electricity

Marginal investment in H<sub>2</sub> compression, H<sub>2</sub> fueling and grid connection US fleet has potential of 5-10TW (6-12x US capacity)



# How a rapid, profitable H<sub>2</sub> transition would work



As H<sub>2</sub> appliances get cheaper with mass production, put them elsewhere too, outside buildings ...*e.g.*, at filling stations



## Hydrogen-ready cars + integrated with buildings = hydrogen transition

- ◇ No technological breakthroughs required (e.g., onboard reformers) — just durable and cheaper fuel cells
- ◇ Can market fuel-cell cars as soon as durable fuel cells become available, and can do so profitably many years earlier than inefficient vehicles would allow
- ◇ Meanwhile, engine or engine-hybrid Hypercar vehicles would impress (e.g., ~70+ mpg for a midsize SUV)
- ◇ No need for new liquid-fuel infrastructure (methanol, ultrapure gasoline,...) nor for liquid hydrogen
- ◇ Integrating mobile and stationary deployment makes the transition profitable at each step (>10%/y real return)
- ◇ It doesn't matter whether durable stacks come first (favoring buildings) or cheap stacks (favoring cars); whichever comes first accelerates both markets





## Do we have enough primary energy to make the hydrogen we need?

( $\eta$  = efficiency)

- › If fueling  $5\eta$  light and  $2\eta$  heavy vehicles,  $\sim 50$  MT/y  $H_2$  could displace all U.S. highway-vehicle fuel
- › U.S. refineries use  $\sim 7$  MT/y  $H_2$  — enough to displace 1/4 of U.S. gasoline (2x Gulf share)
- ›  $\sim 10$  MT/y  $H_2$  could be made from 2.0 TCF of natural gas freed up by efficient end-use of gas and electricity and by electric load management
- › Alternatively, 50 MT/y  $H_2$  could be made by the Dakotas' cost-effective windpower potential, with turbines on a few percent of the windiest available lands, leaving the rest for farming/ranching/wildlife



## “Won’t we just run out of natural gas even faster? Or of capital?”

- ◇ GM thinks U.S. use of natural gas would be *lower* with a miniature-gas-reformer H<sub>2</sub> transition
- ◇ RMI is checking, but can see how any net increase in natural-gas use could at worst be very small
  - Natural gas used to make H<sub>2</sub> could be approximately offset by gas saved in power plants, in boilers and furnaces, and in making H<sub>2</sub> for gasoline
  - Peak electricity demand is served by extremely inefficient gas-fired turbines...so shaving peak electric loads by 5% would save around 9% of the total U.S. use of natural gas
- ◇ Sandy Thomas ([www.h2gen.com](http://www.h2gen.com)) argues that global capital investment in a gas-based H<sub>2</sub> hydrogen fueling infrastructure over the next 40 y would be ~\$1 trillion /less than for gasoline, saving ~\$600 of investment per car served; RMI is refining this estimate too





## “Hydrogen is just a shill for nuclear power and fossil fuels”

- ◇ Even if electrolysis were a competitive way to make  $H_2$ , new nuclear plants are a hopelessly uncompetitive way to make electricity — forget it
  - Delivered cost of new nuclear el. would be  $\sim 2\text{--}3\times$  new wind-power,  $5\text{--}10\times$  gas cogen/trigen,  $10\text{--}30^{+}\times$  end-use efficiency — so nuclear-el.  $H_2$  would cost  $2\text{--}3\times$  more/mi than record oil price
  - Far from saving nuclear power,  $H_2$  will hasten its extinction
- ◇ It's OK to use responsibly extracted fossil fuels to make hydrogen...
  - Temporarily to make  $H_2$  from natural gas without carbon sequestration, because  $CO_2$  released per mile would fall by  $\sim 2\text{--}5\times$  (DOE:  $2.5\times$ )...
  - And long-run to make  $H_2$  *with* carbon sequestration (at large or probably, with emerging methods, small scale) — or its backstop technologies, which don't require geological success





## Renewables will compete well too — even better with hydrogen

- ◇ As already noted, H<sub>2</sub> boosts renewables' economics
- ◇ Fuel cells' distributed benefits are synergistic with those of renewables such as photovoltaics
- ◇ Reversible fuel cells go especially well with PVs
- ◇ DOE should fully fund both H<sub>2</sub> *and* renewables — not swipe H<sub>2</sub> funding from renewables as now
- ◇ Huge stranded renewables, such as Dakotas wind, will require substantial delivery investments (but will still be very worthwhile)
- ◇ Synergies from combining H<sub>2</sub> with renewables
  - *All Danish energy* — not just el. — could be cost-effectively, reliably obtained from windpower with two weeks' H<sub>2</sub> storage





## The Oil Endgame Is Here

- ◇ The chairs of 4 oil majors and 3 car majors have said so
- ◇ The cost of securing and protecting oil supply lines raises national security concerns
- ◇ Oil will probably become uncompetitive even at low prices before it becomes unavailable even at high prices
- ◇ Like uranium already and coal increasingly, oil will become not worth extracting — good mainly for holding up the ground — because other ways to do the same tasks are better and cheaper





**More profitable for hydrocarbon owners too? Just try this quiz...**

- ◇  $(H - C) > (H + C)$ ?
- ◇ Is the hydrogen worth more without the carbon than with the carbon?
- ◇ Is hydrogen plus negacarbon (which someone may pay you *not* to put into the air) worth more than hydrocarbon? What if carbon is worth zero?
- ◇ Is a hydrocarbon worth more feeding a refinery or a reformer?
- ◇ Should refineries become merchant  $H_2$  plants?

(Left as an exercise for the reader. Then run, do not walk, to the hydrogen economy.)



The image features a futuristic car wheel on the left side, partially cut off. The background is a vibrant sunset or sunrise over a landscape, with a gradient of colors from blue to orange and red. The text is overlaid on this background.

## The dawn of the hydrogen era has begun

- ◇ Hydrogen-fueled superefficient vehicles will be safer and cleaner, cost less to drive, cost about the same to buy, and offer the potential to repay most or all of their cost from power sell-backs
- ◇ Fuel cell and vehicle technology enablers are within reach
- ◇ Enough hydrogen can be made cost-effectively from North American energy sources (even from just regional renewables) to eliminate gasoline and diesel use — creating real security
- ◇ A fast transition to a hydrogen economy is already starting and can be profitable at each step

## **It's time — we just need leadership**

"People and nations behave wisely — once they have exhausted all other alternatives."  
— Churchill

"Sometimes one must do what is necessary."  
— Churchill

"We are the people we have been waiting for."  
— Hopi Elders

[www.rmi.org](http://www.rmi.org)

[www.hypercar.com](http://www.hypercar.com)





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## **ENERGY AND ENVIRONMENT UPDATE**

**March 11, 2012**

### **Energy and Climate Debate**

The energy debate continued this week, with a number of high profile issues making headlines in the Senate, reviews and critiques of the president's budget request occupying significant committee hearing time, and the administration repeating its call for an all of the above energy strategy.

As debate over the Senate's \$109 billion highway and transit reauthorization bill (S. 1813) continues, Senate leadership agreed to a deal late March 7 to consider 30 amendments to the measure including amendments related to high-stakes energy issues such as the Keystone XL pipeline, the Environmental Protection Agency's Boiler MACT rule, offshore drilling, the NAT GAS Act, and renewable energy and energy efficiency tax extenders. The House will be in recess, returning the week of March 19.

An amendment from Senator Debbie Stabenow (D-MI) would extend 16 energy-related tax incentives for an additional year, including the wind production tax credit, which is scheduled to expire at the end of the year, the plug-in electric vehicle tax credit, and a credit for producers of cellulosic biofuels that expired at the end of 2011. Additionally, the amendment would provide an additional \$2.3 billion for the 48C advanced energy manufacturing tax credit, would extend the section 1603 Treasury Department grants in lieu of tax credits program. A very close vote is expected this week, though the amendment is ultimately unlikely to pass.

Senator Stabenow's amendment was one of five amendments Democrats were allowed to offer under the agreement on nongermane amendments. Others included one from Senators Robert Menendez (D-NJ) and Richard Burr (R-NC) providing tax incentives for natural gas vehicles and infrastructure, and measures to assist in Gulf Coast oil spill clean up and restoration efforts, to provide an alternative to a Republican Keystone XL pipeline amendment.

The Senate rejected, 56-42, a Republican plan March 8 to approve construction of the Keystone XL oil pipeline after President Obama made calls to Democrats urging them to oppose it. The amendment from Senator John Hoeven (R-NV) would approve the Keystone XL pipeline. Sen. Susan Collins' (R-ME) amendment delaying EPA's Boiler MACT rule failed on a 52-46 vote the same day. The House is expected to take up a version of the Senate legislation if the Senate passes its measure.



**FINAL  
ENVIRONMENTAL  
ASSESSMENT**

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**ENVIRONMENTAL ASSESSMENT FOR DEPARTMENT OF ENERGY LOAN TO  
NISSAN NORTH AMERICA, INC., FOR ADVANCED TECHNOLOGY  
ELECTRIC VEHICLE MANUFACTURING PROJECT IN  
SMYRNA, TENNESSEE**

U.S. Department of Energy  
Advanced Technology Vehicles Manufacturing Loan Program  
Washington, DC 20585

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# SUMMARY

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## Introduction

The U.S. Department of Energy (DOE) is proposing to issue a loan to Nissan North America, Inc., (Nissan) for the production of advanced technology electric vehicles (EVs). Nissan's Electric Vehicle Production Project (EV Project) would include the expansion of the Smyrna, Tennessee Manufacturing Plant through the construction of an approximately 1.3 million square foot lithium-ion (Li-ion) battery plant (EV Battery Plant) to produce the batteries that would power the new EVs. The EV Project would also include reequipping and expanding the existing automobile manufacturing operations at the Smyrna Plant.

DOE has prepared this environmental assessment (EA) to comply with the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500-1508) and DOE National Environmental Policy Act Implementing Procedures (10 CFR 1021). The EA examines the potential environmental impacts associated with the proposed action and No Action Alternative to determine whether the proposed action has the potential for significant environmental impacts.

## Purpose and Need

The Energy Independence and Security Act of 2007 (EISA) (P.L. 110-140) authorized several new grant, loan, and aid programs to stimulate the transformation of local communities, states, and industries adopting and adapting to renewable energy and energy conservation programs. The Advanced Technology Vehicles Manufacturing Loan Program (ATVM) was authorized under Section 136 of EISA to facilitate the development of energy-efficient vehicles. On September 30, 2008, the ATVM program was funded and up to \$25 billion in direct loans were authorized to eligible applicants for the costs of reequipping, expanding, and establishing manufacturing facilities in the U.S. to produce advanced technology vehicles that provide meaningful improvements in fuel economy performance and components for such vehicles. The purpose and need for agency action is to comply with DOE's mandate under Section 136 of the EISA by selecting eligible projects that meet the goals of the Act. DOE is using the NEPA process to assist in determining whether to issue a loan to Nissan to support the proposed project. Nissan's EV Project would manufacture zero-emission, fully electric vehicles. If these EVs displace vehicles powered by fossil fuels, their use could reduce mobile greenhouse gas emissions (carbon dioxide) by approximately 1 million metric tons each year they remain in service.

**FINDING OF NO SIGNIFICANT IMPACT**  
**DEPARTMENT OF ENERGY LOAN TO NISSAN NORTH AMERICA, INC., FOR THE**  
**ELECTRIC VEHICLE PRODUCTION PROJECT IN SMYRNA, TN**

**AGENCY:** U.S. Department of Energy, Advanced Technology Vehicles Manufacturing Loan Program

**ACTION:** Finding of No Significant Impact

**SUMMARY:** The U.S. Department of Energy (DOE) conducted an environmental assessment (EA) that analyzed the potential environmental impacts associated with the Nissan North America Inc., (Nissan) Electric Vehicle Production Project (EV Project), which would include construction of an approximately 1.3 million square foot lithium-ion battery plant and reequipping and expanding the existing automobile manufacturing operations at Nissan's Smyrna Manufacturing Plant located in Smyrna, Tennessee. DOE, through its Advanced Technology Vehicles Manufacturing Loan Program, proposes to provide a Federal loan in the amount of \$1.6 billion pursuant to Section 136 of The Energy Independence and Security Act of 2007 (P.L. 110-140) to Nissan to support the proposed EV Project. The purpose and need for agency action is to comply with DOE's mandate under Section 136 of the EISA by selecting eligible projects that meet the goals of the Act. DOE is using the NEPA process to assist in determining whether to issue a loan to Nissan to support the proposed EV Project.

The goal of Nissan's EV Project is the manufacturing of zero-emission, fully electric vehicles (EV) in the United States. Fully electric vehicles do not produce emissions, nor do they consume petroleum products. If these electric vehicles displace vehicles powered by fossil fuels, their use could reduce mobile greenhouse gas emissions (carbon dioxide) by approximately 1 million metric tons each year they remain in service, assuming a production rate of 150,000 EVs per year.

In addition to manufacturing the EVs, the proposed EV Project would also involve the manufacture of laminated lithium-ion batteries that would be used to power the EVs. Lithium-ion batteries generate higher electric voltage than either lead-acid batteries or nickel-metal hydride batteries, allowing for higher power output. The proposed EV Project would maximize the performance and safety of lithium-ion batteries by employing a highly efficient laminated battery cell. As opposed to older and less efficient cylindrical-type cells, the laminated structure is expected to provide superior cooling efficiency, keep temperatures from rising even with twice the energy density, and prevent uncontrolled discharge.

All discussion and analysis related to the potential impacts of construction and operation of the proposed EV Project are contained in the Final EA (DOE/EA-1678), which is incorporated by reference. DOE examined potential impacts on the following resources and found none to be significant: land use; visual resources; air quality; noise; geology and soils; water resources; biological resources; cultural resources; socioeconomics and environmental justice; utilities;



machines, he said. The company will start shipping replacement battery packs to five customers later this week, he said. It estimated that the replacement effort will cost about \$55 million and that it will take a charge to its earnings over the next several quarters.

A123 shares fell 13% to \$1.22. Since Friday, the stock has lost 29% of its value.

The New York law firm of Bronstein, Gwirtz & Grossman, which bills itself as a "corporate litigation boutique," issued a news release saying it was "investigating potential claims" of shareholders concerning whether the company and certain of its officers and directors have violated federal securities laws.

A123 spokesman Dan Borgasano declined to comment on the law firm's statement.

Earlier this month, Consumer Reports disclosed that a \$108,000 Fisker Karma flashed an error message and locked in gear with just 180 miles on the odometer while being driven at the magazine's Connecticut testing center. The cause of that shutdown was associated with A123's defective batteries, said Vieau, who declined to identify other customers who received defective battery packs.

## **Toyota to invest \$80M in Canadian factory**

Toyota says it will invest \$80 million in a Canadian factory to build more RAV4 small SUVs

	Waste Management		
FOIA-2009-000201	Consultant-performed Operational Efficiency and Cost Reduction Evaluation for the H-Canyon and K Area facilities at the Savannah River Site	3/18/2009	Closed at HQ and transferred to the Savannah River Operations Office on 3/18/2009
FOIA-2009-000203	Documents related to the DOE's 16 federally funded research and development centers	3/19/2009	Closed at HQ and transferred to the Chicago Operations Office on 4/1/2009
FOIA-2009-000204	Copies of all congressional correspondence from February 17, 2009, that relate to the American Recovery and Reinvestment Act	3/23/2009	Closed on 7/22/2009
FOIA-2009-000205	Information related to the permitting process and any public hearings involving a nuclear reactor plant project in Southwestern Idaho by Alternative Energy Holdings Incorporated	3/23/2009	Closed on 3/25/2009 as duplicate of FOIA-2009-000173
FOIA-2009-000207	Documents related to the eligibility of Tronox for Title X funds	3/24/2009	Closed on 4/27/2009
FOIA-2009-000208	List of individuals in the Office of Energy Efficiency and Renewable Energy that were or are on TDY from March 2008 to March 2009	3/24/2009	Closed on 8/3/2009
FOIA-2009-000209	Copy of a letter dated January 30, 2009, from Joel Van Winkle, Senior Counsel at the Whirlpool Corporation to Michael McCabe, Senior Engineer in the Building Technologies Program at the DOE	3/24/2009	6/26/2009
FOIA-2009-000210	Contract awarded to Information Incorporated in December 2008 under the Management Support Services for Fossil Energy Headquarters	3/24/2009	Closed on 5/21/2009
FOIA-2009-000211	Correspondence between DOE, NNSA, Los Alamos National	3/25/2009	Closed at HQ and transferred to the

Is the battery maker A123 Systems' electric-car play starting to stall?

The Waltham company recently cut its revenue forecast for 2011 by about 20 percent and laid off a few hundred employees at its Michigan factory after one of its biggest customers, electric-car maker Fisker Automotive, unexpectedly reduced the number of batteries it had ordered from the company.

Fisker was recently cut off from hundreds of millions in federal funds because it failed to meet the terms of its government loan.

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While company officials say A123 is already diversifying its business, it remains dependent on the electric-car business; sales to the transportation sector accounted for nearly 60 percent of its revenue in the first nine months of 2011, according to A123 financial statements.

A123's troubles are emblematic of the struggle of the nascent clean-technology industry, which currently relies on government subsidies as it labors away at developing commercially viable products.

In addition to Fisker's misfortune, at least two other alternative energy companies that received hefty financial backing from the Energy Department are in bankruptcy: Beacon Power Corp., a Tyngsborough energy storage company that sold its factory to repay the government \$39 million; and Solyndra, a California solar panel manufacturer that is under investigation and owes the United States more than \$500 million.

For now, the Obama administration remains a strong proponent of clean-technology companies. In the budget plan he released Monday, the president requested \$588 million to help the industry fulfill his goal of having 1 million electric cars in use by 2015.

Moreover, a recent outside review of the two main Department of Energy loan programs to clean-energy companies found that the government's potential losses, while still hefty, have lessened over time to \$2.68 billion. (A123 received substantial public aid, but the company

Four times, the U.S. Energy Department offered terms to Bright Automotive Inc. for a loan the startup company was seeking to finance production of electric commercial vans.

Each successive, conditional offer arrived with stiffer terms, Chief Operating Officer Mike Donoughe said in an interview. He likened the experience to offering to buy a car for \$20,000 and having the dealer try to bargain up to \$40,000. Chrysler Group LLC Chief Executive Officer [Sergio Marchionne](#) made similar comments before the company last month withdrew its application to the same program.

Enlarge Image



Bright Automotive said last week it's shuttering the company because it can't wait any longer to receive money from the Advanced Technology Vehicles Manufacturing Program. Source: Bright Automotive

Chart: Automakers Get Energy Dept Loans for Clean Energy

While Energy Secretary Steven Chu says the vehicle program is evaluating applications, it hasn't awarded new money since the bankruptcy of solar-panel maker Solyndra LLC, which won a \$535 million loan guarantee through another department program.

"In an election year, there will be more caution and delay as a result," said [Julian Zelizer](#), a political historian at [Princeton University](#). Solyndra's bankruptcy filing put a damper on all Energy Department loans, Zelizer said in an e-mail.

"Inevitably it will slow down the program the closer we get to the election," he said.

The \$25 billion vehicle-loan program, created in 2008, last made an award in March 2011.

Republicans subpoenaed documents about the Solyndra loan from President Barack Obama's administration, questioning whether campaign fundraiser [George Kaiser](#), whose family foundation was the company's biggest investor, pressed for the loan guarantee.

...mass plug-in electric vehicles. It accused that the Energy Department had blocked access to most of its loan money since May because of unmet milestones.

## Taxpayer Interests

Aptera Motors Inc., a California electric-car company supported by Representative [Darrell Issa](#), chairman of the U.S. House committee leading a probe of the department's loan programs, closed in December after it couldn't get private financing to match a \$150 million conditional loan commitment from the Energy Department.

The department is proceeding with loan application reviews carefully even as markets for private capital improve, Chu said.

"We're continuing to look at the loans and process the loans," Chu told reporters on March 1. "In all the loans, we are certainly committed to looking out after the taxpayer money. This is a very fundamental part of this. While we were asked through the Congress to invest in innovative new technologies, we also have to balance that with looking out after the taxpayer money."

## Ford, Nissan

The Energy Department has awarded \$8.4 billion from the vehicle-manufacturing loan program since 2009 to companies including [Nissan Motor Co. \(7201\)](#), which sells the Leaf plug-in car; [Tesla Motors Inc. \(TSLA\)](#), maker of the electric Roadster; and [Ford Motor Co. \(F\)](#), which last week said its plug-in Focus was certified by the U.S. Environmental Protection Agency to offer the equivalent of 105 miles (169 kilometers) per gallon of gasoline.

Bright wanted to benefit from Obama's push to buy more energy-efficient vehicles for the U.S. government fleet, Donoughe said. The company planned to manufacture vehicles at a closed AM General LLC plant in Indiana and had the support of Senator [Debbie Stabenow](#), a Michigan Democrat, and Democratic and Republican Congress members from Indiana, according to letters provided by the Energy Department.

"It's unfortunate that more companies have not been approved, but we are looking at options to ensure that the initiative will continue to help manufacturers create American jobs,"

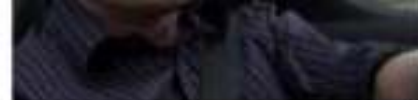
Stabenow, who helped create the program, said in an e-mailed statement.

er, the ban terms "were so one-sided to make the application we'll go away," Donoughe said. "They kept ratcheting up the pressure just couldn't abide by them."

Donoughe is scheduled to deliver the keynote address at a conference on autonomous commercial vehicles. The speech will be in Indianapolis, Indiana, where Bright plans to wind down operations at the end of the year.

"If they only should they close the program, they should take the wheel off the table and disband it," Donoughe said.

Reporter on this story: Ansel Greiling Keane in Washington



Tesla Motors CEO Elon Musk at the wheel of a Tesla Roadster

got the credit from the DoE's Manufacturing program. In fact, Musk says, it was Daimler – not the DoE – which saved Tesla from bankruptcy.

Never shy of saying interesting things, Musk made the debatable revelation at *The Wall Street Journal's* ECEconomics conference in Santa Barbara yesterday.

"We were saved by Daimler," Musk said, adding that Daimler's \$50 million, 9 percent ownership of Tesla was enough to help the company stage a successful initial public offering without the DoE's help.

Technically, Musk is correct. Without the investment from Daimler, the DoE [loan](#) guarantees would never have been given to Tesla. In reality however, the DoE [loans](#) enabled Tesla to do much more than the Daimler investment did.

Not to be ungrateful for the \$465 million of tax-payers' money, Musk was sure to add "The DOE was a helpful catalyst," and that without it, Tesla's IPO "wouldn't have been as good."

With the 2012 Tesla Model S Luxury Sedan set to enter production this year and the 2013 Tesla Model X Crossover [SUV](#) already unveiled, it isn't difficult to see why Musk is keen to bask in Tesla's less-grim prospects. After all, history tends to be written by the victors.

But while we understand Musk's keenness to distance Tesla from [other, less-successful](#) DoE ATVM loan recipients, his next move baffled us.

"Musk said that generally he doesn't believe government subsidies are good, but in some cases they do help," [reports The Wall Street Journal](#).

Instead of offering federal loans which artificially pick and choose winners and losers in the marketplace, he opined, companies should be allowed to survive on their own merits. The implication, of course, was that startups should rely on private investment, not

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# The Washington Times

## Energy department probes delay of layoff news at Solyndra

By [Jim McElhatton](#)

The Washington Times

Thursday, March 8, 2012

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The [Energy Department's Office of Inspector General\(/topics/energy-departments-office-of-inspector-general/\)](#) is investigating who pushed to delay bad news about federally backed [Solyndra LLC\(/topics/solyndra-llc/\)](#) until after the November 2010 midterm elections.

Energy Secretary [Steven Chu\(/topics/steven-chu/\)](#), who nearly four months ago pledged to find out if anyone in his department was involved, told a [House Committee\(/topics/house-committee/\)](#) on Thursday he's turned the matter over to the department's [Office of Inspector General\(/topics/energy-departments-office-of-inspector-general/\)](#).

[Mr. Chu\(/topics/steven-chu/\)](#)'s comments came in response to questions from Rep. Michael C. Burgess, Texas Republican, during a hearing by the [House Energy and Commerce Committee's subcommittee\(/topics/house-energy-and-commerce-committees-subcommittee/\)](#) on energy and power. The [House Energy Committee\(/topics/house-energy-committee/\)](#)'s investigations panel has been investigating the [Energy Department\(/topics/united-states-department-of-energy/\)](#)'s 2009 loan guarantee to [Solyndra\(/topics/solyndra-llc/\)](#) for \$535 million for more than a year. The company went bankrupt last year.

Last year, a Republican staff memo from the [committee\(/topics/house-energy-committee/\)](#) showed that an official at one of the major investors in [Solyndra\(/topics/solyndra-llc/\)](#) said the [Energy Department\(/topics/united-states-department-of-energy/\)](#) "did push very hard for us to hold our announcement of the consolidation to employees and vendors to Nov. 3 — oddly they didn't give a reason for that date."

The date was one day after the midterm elections. The disclosure fueled talk by Republicans that politics were involved in the Obama administration's handling of the [Solyndra\(/topics/solyndra-llc/\)](#) loan. The company was a high-profile beneficiary of President Obama's stimulus program. Mr. Obama toured the company in 2010, and Vice President Joseph R. Biden made remarks at a company groundbreaking



[topics/steven-chu/](#) was questioned about the layoff timeline at a hearing last year. He said he had not approved of the delay, adding that “we do have an interest in finding out” who approved the announcement.

Primarily our general counsel’s office will look at who is doing these things,” he said at the hearing. In his testimony Thursday, [Mr. Chu/topics/steven-chu/](#) said he later turned the matter over to the inspector general because doing so would provide “an independent look at what happened and that I had not been interviewed by the inspector general about the layoff announcement, but I had been interviewed separately.

[topics/steven-chu/](#) was also pressed on whether any other loan recipients were headed for similar treatment. He said the department closely monitors companies’ financial health and market conditions and intended to discuss any individual recipients because of what he said were confidentiality concerns.

While there are questions about the involvement of the inspector general, an independent agency that investigates government waste, in the [Solyndra/topics/solyndra-llc/](#) layoff inquiry came during a hearing covering other issues, including rising gas prices.

[topics/steven-chu/](#) said the Obama administration was concerned about the increasing price of gas, but that there was “no magic bullet.”

# Energy Department rejects another auto loan request

BY DAVID SHEPARDSON | DETROIT NEWS WASHINGTON BUREAU | 1 COMMENT

Washington -Carbon Motors Corp., a startup aiming to build fuel-efficient diesel police cars and take on Detroit's automakers, is the latest company to be rejected by the Energy Department for loans under the struggling \$25 billion auto retooling program.

The privately held Connersville, Ind., company said the Energy Department informed the company it will not approve its request for \$310 million under the Advanced Technology Vehicle Manufacturing that was created in 2007 and funded by Congress in 2008 with \$7.5 billion to cover taxpayer losses.

Several startup automakers say they have spent millions of dollars, and in some cases, years, trying to win government loans. They accuse the Obama administration of refusing to approve any new loans because of concerns about political fallout from awarding loans to a company that could struggle — especially in a presidential election year.

"We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly charged, election year environment. Since Solyndra became politicized last fall, the DOE has failed to make any other loans under the ATVM program, has pulled back one loan that it previously committed and, as of this month, the DOE has pushed aside the three remaining viable loans under active consideration," said William Santana Li, chairman and chief executive officer of Carbon Motors. "Each of these applicants has been caught for several years in a costly and extensive DOE due diligence process. Carbon Motors simply appears to be the last victim of this political gamesmanship."

The company said the failure to approve any new loans in two years "represents a glaring failure of the Obama Administration to create jobs that are clearly within its power to create."

The company had struck a deal to buy diesel engines from BMW AG in 2010, purchased a 1.8-million-square-foot factory in Connersville formerly owned by Visteon Corp., once a Ford Motor Co. subsidiary, and planned to add 1,550 jobs.

The government has awarded four loans totaling \$6.4 billion to Ford Motor Co., Nissan Motor Co. and startups Fisker Automotive and Tesla Motors.

An Energy spokesman, Damien LaVera, said the government "is committed to balancing our goal of supporting innovative projects that can promote the development of clean vehicles in the United States with our responsibility to be good stewards of the taxpayer's money."

LaVera noted that the government has been in talks with Carbon Motors for two and a half years "to try to negotiate a deal that supported their business while protecting the taxpayers."

Energy Secretary Steven Chu told a congressional committee Thursday that his staff would brief Congress next week on the status of its green loans. But Chu would not commit to disclosing to Congress the names of companies that have received loans on an internal "watch list" for potential problems.

Last month, Rochester Hills auto startup Bright Automotive said it was closing operations after it failed to receive a federal retooling loan.

The company, backed with \$5 million in funding by General Motors Co., had about 60 employees in Michigan and Indiana.

"We have been forced to say uncle. As a result, we are winding down our

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# Issues in Midterm Analysis and Forecasting 1999

August 1999

**Energy Information Administration**  
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This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should be attributed to the Energy Information Administration and should not be construed as advocating or reflecting any policy position of the Department of Energy or of any other organization.

*Issues in Midterm Analysis and Forecasting 1999 (Issues)* presents a series of eight papers, which cover topics in analysis and modeling that underlie the *Annual Energy Outlook 1999 (AEO99)*, as well as other significant issues in midterm energy markets. *AEO99*, DOE/EIA-0383(99), published in December 1998, presents national forecasts of energy production, demand, imports, and prices through the year 2020 for five cases—a reference case and four additional cases that assume higher and lower economic growth and higher and lower world oil prices than in the reference case. The forecasts were generated using the Energy Information Administration's (EIA) National Energy Modeling System (NEMS).

The papers included in *Issues* describe underlying analyses for the projections in *AEO99* and the forthcoming *Annual Energy Outlook 2000* and other analytical products of EIA's Office of Integrated Analysis and Forecasting. Their purpose is to provide public access to analytical work done in preparation for the midterm projections and to other unpublished analyses. Specific topics were chosen for their relevance to current energy issues or to highlight modeling activities in NEMS.

The *AEO99* projections are used by Federal, State, and local governments, trade associations, and other planners and decisionmakers in the public and private sectors. They are published in accordance with Section 205(c) of the Department of Energy Organization Act of 1977 (Public Law 95-91), which requires the Administrator of EIA to prepare an annual report that contains trends and projections of energy consumption and supply.

*Issues* was prepared under the direction of Mary J. Hutzler (mhutzler@eia.doe.gov, 202/586-2222), Director of the Office of Integrated Analysis and Forecasting; Susan H. Holte (sholte@eia.doe.gov, 202/586-4838), Director of the Demand and Integration Division; James M. Kendell (jkendell@eia.doe.gov, 202/586-9646), Director of the Oil and Gas Division; Scott B. Sitzer (ssitzer@eia.doe.gov, 202/586-2308), Director of the Coal and Electric Power Division; and Andy S. Kydes (akydes@eia.doe.gov, 202/586-2222), Senior Modeling Analyst. Specific questions about the papers in *Issues* may be addressed to the following authors:

#### **Trends in Power Plant Operating Costs**

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Susan H. Holte (sholte@eia.doe.gov, 202/586-4838)

# Energy Secretary Chu on not seat today over gas prices statement

Published: Thursday, March 08, 2012, 8:18 AM

Updated: Thursday, March 08, 2012, 8:18 AM



By Bruce Alpert, Times-Picayune

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WASHINGTON -- This might be a multiple aspirin day for **Energy** Secretary Steven Chu. He is testifying this morning before the House Energy and Power Subcommittee.



Alex Brandon, The Associated Press

Energy Secretary Steven Chu is testifying this morning before the House Energy and Power Subcommittee Thursday morning. High gas prices will be a major topic of discussion.

The announced topic is President **Barack Obama's** proposed energy budget for 2013, but you can bet that Republicans on the panel will be asking him about his comments at another hearing when asked if the administration's goal was to lower gasoline prices.

He responded no. The major goal is to reduce foreign oil dependency, Chu said.

Republicans on the panel, including Rep. **Steve Scalise**, R-Jefferson, are likely to ask Chu about that statement, which has already led to a demand

from GOP Presidential candidate **Newt Gingrich** that the president fire him.

He's also likely to be asked again about the failed loan guarantee for solar panel manufacturer Solyndra, though questioning on that topic may be tempered by release this week of letters from GOP lawmakers asking Chu for approval of loan guarantees for energy projects in their states.

During a news conference on Tuesday, President Barack Obama strongly denied that his administration doesn't want lower gas prices, though he said Republican arguments that the U.S. could drill itself to lower prices just isn't true.

\*Just from a political perspective, do you think the president of the United States going into

## Energy Secretary Chu Testifies on Loan Guarantees



**WASHINGTON, DC**  
**Tuesday, March 13, 2012**

The Senate Energy and Natural Resources Committee holds a full committee hearing on Energy Department loan guarantees.

The hearing focuses on the "Report of the Independent Consultant's Review with Respect to the Department of Energy Loan and Loan Guarantee Portfolio," but will likely also examine Solyndra, which received more than half a billion dollars in federal loan guarantees before it filed for bankruptcy last year.

House Republicans opened their investigation into Solyndra nearly 13 months ago, but this is the first time Democratic-controlled Senate will examine the program since Solyndra went under.

Herbert Allison, author of the report and former Treasury assistant secretary, will testify along with Energy Secretary Steven Chu.

The White House commissioned the report last year at the height of the Solyndra scandal and it was released on Feb. 10 of this year.

It covers the current status of loans and loan guarantees administered by the Energy Department to support alternative energy projects, as well as recommendations for managing and monitoring the programs and for identifying and fixing potential problems with individual loans and loan guarantees.

It reviews the Energy Department's portfolio of 30 loans, worth just under \$24 billion, and shows potential losses from the program will likely be less than Congress and the White House projected, according to the White House.

The report includes recommendations on how to improve the programs by filling key positions in management, clarifying authorities and accountabilities of managers and the establishing of a comprehensive information management system to inform the early warning system for troubled loans.

The report was limited to companies still in operation and did not include Solyndra.

Updated Monday at 7:09pm (ET)

### RELATED EVENTS

#### **Energy Secretary Testifies on Budget, Energy Loans, Gas Prices**

Thursday Washington, DC



Energy Secretary Steven Chu testified before the House Subcommittee on Energy and Power on the department's FY2013 Budget Request. The administration is seeking \$27.2 billion, a 3.2 percent increase over 2012.

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# Energy Secretary Chu's Hopeless Clean Energy Crush

By Rep. Marsha Blackburn (R-TN)

Energy Secretary Steven Chu is on a mission to proliferate the use of clean energy no matter the cost to American taxpayers. In 2008, Secretary Chu told the *Wall Street Journal*, "Somehow we have to figure out how to boost the price of gasoline to the levels in Europe." Even worse, according to White House Press Secretary Jay Carney, President Obama never asked Secretary Chu to walk back his comments. Today, the average gallon of gas in Europe costs more than \$8.

With gas prices just over \$4 per gallon in the U.S., and projected by *Barron's* to hit \$4.50 this spring, Secretary Chu and the Administration are less than \$1 away before electric vehicles become a reasonable price option for the average American family.

When President Obama was inaugurated the price of a gallon of gas was \$1.84. In less than 4 years under this Administration, the price of gas has more than doubled. Not to mention, this has all occurred at a time when unemployment is at its longest streak above 8.0% since the Great Depression. Once you factor in the U-6 measure of unemployment, which includes discouraged workers and part-time workers seeking full time employment, the real unemployment rate is at a sky high 14.9%.

Unfortunately, the price of gas is not the only area in which Secretary Chu is putting a dent in American taxpayers' wallets. He is also responsible for the

**WASHINGTON (CNN)** -- A committee hearing Tuesday on the Department of Energy's use of stimulus funding kept returning to rising gas prices as Republicans hammered Secretary Steven Chu over the pain at the pump.

The partisan divide of Washington was on full display at the House Oversight Committee hearing.

Democrats on the panel repeatedly asked Chu leading questions that provided him the chance to defend administration policies, while Republicans confronted him with allegations of cronyism in Department of Energy loan programs or complaints that he and President Barack Obama don't understand what consumers face from higher gas prices.

Republican Rep. Ann Marie Buerkle of New York asked Chu to "go to the administration and say, 'The American people are hurting. They need you to do something now.' "

She and fellow Republican Rep. Patrick McHenry of North Carolina pushed Chu on what steps he has taken in his three years on the job to bring down gas prices.

When Chu noted investments to boost the use of electric cars and increase fuel efficiency standards, McHenry said those mean nothing to his constituents who have long commutes by car every day.

"I have heard nothing of a policy that will meaningfully impact the price at the pump, other than driving it up," McHenry complained. To tell people in his district facing 10% unemployment to buy a new electric vehicle "is absolutely ridiculous," he said.

Buerkle also challenged the Obama administration's contention that America has 2% of the world's known oil reserves, saying the actual amount is much greater and that expanded exploitation could reduce gas prices in the long term.

Obama has argued there is no single step or "silver bullet" to lower gas prices in the short term, saying oil costs are set by an international



he has pushed the right ones in a time of changing energy needs and opportunities.

"America has reached a crossroads and members of Congress have a big decision to make: We can play to win in the clean-energy race --- investing in America's workers, industries, and innovations --- or we can wave the white flag and cede leadership to other countries that are investing in these industries," Chu said."

Asked about his previous comment that he deserved an A-minus grade for his performance so far, Chu stuck to it, adding it should be "a little higher" for efforts to reduce oil imports by steps such as developing electric and natural gas-powered vehicles.

When Rep. Trey Gowdy, R-South Carolina, repeatedly tried to get Chu to discuss his oft-quoted 2008 comment in favor of higher gas prices in America, the secretary refused to engage, responding several times that he had "nothing more to add to that quote."

"I'm not trying to boost the price of gasoline" as energy secretary, Chu told Gowdy. "Quite the opposite. I'm trying, as a scientist, to diversify the use of gasoline" to bring down fuel costs.

Other Republicans repeatedly asked Chu about loans made under a Department of Energy program intended to promote innovation, such as \$500 million for the California solar panel manufacturer Solyndra that later went bankrupt.

Rep. Jim Jordan, R-Ohio, listed a series of loans approved for companies that had investors with ties to Obama administration officials or campaign fundraisers. Jordan asked Chu if he detected a pattern of cronyism, calling it the kind of government behavior that Americans despise.

Chu responded he didn't, and repeatedly answered "no" when asked if any of the administration officials ever lobbied him on the loan program.

Jordan then said that many of the companies involved had poor credit ratings, adding that if there was no political motivation for approving the loan guarantees, the only other explanation would be incompetence by Department of Energy officials.

"That's what the American people find so frustrating with the situation," Jordan said.

Chu responded that such a loan program involved high risk investments. Under questioning from committee Chairman Rep. Darrell Issa,

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Obama has argued there is no single step or "silver bullet" to lower gas prices in the short term, saying oil costs are set by an international market influenced by rising demand in China and India as well as jitters over Middle East instability, particularly involving Iran.

With a presidential election looming, Republican leaders including the presidential hopefuls in the midst of a nomination battle have targeted Obama's energy policies. They seek to blame Obama for high energy costs, saying a failure to greatly expand U.S. oil production is a cause.

Chu repeated administration talking points that the United States is producing more oil and natural gas now than any time in recent years, and that a balanced approach that invests in innovation such as alternative energy sources is needed to remain competitive in global markets.



Lucy Nicholson/Reuters

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Energy Secretary Steven Chu and former Treasury official Herbert M. Allison Jr. take center stage at a Senate Energy and Natural Resources Committee hearing on loan guarantees on March 13.

Potential losses from the Energy Department's loan programs will probably be less than both Congress and the White House projected, according to a Jan. 31 report by Allison, who was recruited by the White House for the review. Republicans, primarily in the House, have attacked the program as a wasteful attempt to pick "winners and losers."

Enlarge image



The Energy and Commerce Committee has conducted a year-long investigation into the loan guarantee for Solyndra LLC, a solar panel maker that filed for bankruptcy protection, two years after winning a \$535 million loan guarantee. Photo: David Paul Morris/Globe.org

The House Energy and Commerce Committee has conducted a yearlong investigation into the loan guarantee for Solyndra LLC, a Fremont, California-based solar panel maker that filed for [bankruptcy protection](#) in September, two years after winning a \$535 million loan guarantee.

Expect the Senate panel's grilling of Allison and Chu to be gentler than what the House committee would dole out. Allison's report "gives reassurance" that Energy officials correctly assessed the risks of the loan program, Senator [Jeff Bingaman](#), a New Mexico Democrat and the committee's chairman, said in a Feb. 22 [statement](#).

The program provides federal backing of loans for clean-energy projects for power generation, cellulosic-ethanol production and advanced vehicle technologies, according to

the Energy Department.

The Allison Report reviewed 30 loans in a portfolio worth \$23.87 billion. It estimated the long-term projected loss to the government at \$2.7 billion, about \$200 million less than the Energy Department's latest estimate and considerably less than the \$10 billion Congress established for losses to clean-energy and auto loan programs, according to [Eric Schütz](#), a



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Draper Fisher Jurvetson	3 energy investments; tech focus; CalCEF partner	<a href="http://www.dfj.com/">www.dfj.com/</a>
Easenergy (part of EDF)	Makes non-cash energy investments	<a href="http://www.easenergy.com/">www.easenergy.com/</a>
EnerTech Capital	20 energy investments; clean tech	<a href="http://www.enertechcapital.com">www.enertechcapital.com</a>
Expansion Capital Partners	1 energy investment; clean tech	<a href="http://www.expansioncapital.com">www.expansioncapital.com</a>
Firelake Capital Management	3 energy investments; energy & water focus	<a href="http://www.firelakecapital.com">www.firelakecapital.com</a>
Fort Washington	Manages state-owned New Mexico Co-Investment Partners	<a href="http://www.fortwashington.com">www.fortwashington.com</a>

Inverness Capital Partners	1 energy investment; industrial	<a href="http://www.invernesscap.com">www.invernesscap.com</a>
Mohr Davidow Ventures	3 energy investments; materials, internet; life sciences, semiconductors	<a href="http://www.mdv.com">www.mdv.com</a>
NGEN Partners	4 energy investments; materials, infotech	<a href="http://www.ngenpartners.com">www.ngenpartners.com</a>
Nth Power	20 energy investments; CalCEF partner	<a href="http://www.nthpower.com">www.nthpower.com</a>
OPG Ventures (Ontario)	10 energy investments	<a href="http://www.opg.com">www.opg.com</a>
Odyssey Venture Partners	1 energy investment; software	<a href="http://www.2odyssey.com">www.2odyssey.com</a>
Pangaea Ventures	cleantech	<a href="http://pangaeaventures.com">pangaeaventures.com</a>
RBC Technology Ventures	science, biotech	<a href="http://www.rbcroyalbank.com">www.rbcroyalbank.com</a>
RockPort Capital Partners	4 energy investments; materials	<a href="http://www.rockportcap.com">www.rockportcap.com</a>
Rustic Canyon Ventures	software	<a href="http://www.rusticcanyon.com">www.rusticcanyon.com</a>
SJF Ventures	1 energy investment; cleantech	<a href="http://www.sjfund.com">www.sjfund.com</a>
Sound Point Ventures	4 energy investments; sustainability	<a href="http://soundpointventures.com">soundpointventures.com</a>
Taproot Ventures	industrial, materials	<a href="http://www.taprootventures.com">www.taprootventures.com</a>
Technology Partners	4 energy investments; life sciences, infotech	<a href="http://technologypartners.com">technologypartners.com</a>
VantagePoint Venture Partners	IT & healthcare; CalCEF partner	<a href="http://www.vpvp.com">www.vpvp.com</a>
Yaletown Venture Partners	software, materials	<a href="http://www.yaletown.com">www.yaletown.com</a>

ARTICLES GRANTED PREFERENTIAL TARIFF UNDER  
THE APPROVED TOYOTA AICO SCHEME

(1) HS CODE	(2) MODEL / TYPE	(3) PRODUCT /PART NAME	(4) PART NO.	(5) SOURCE COUNTRY COMPANY	(6) APPLICABLE AICO PREFERENTIAL TARIFF (%)
8703.90 10	Corolla Passenger Car	Various Components/ Parts:		Indonesia (P.T. Toyota Astra Motor [TAM])	5
		Cover Assy, Clutch	31210		
		Disc Assy, Clutch	31250		
		Body Assy, Throttle	22210		
		Body Assy, Throttle	22210		
		Canister Assy, Charcoal	77740		
		Flywheel	13405		
		Belt, V-Ribbed	90080		
		Plug, Spark	90080		
		Horn Assy, Low Pitched	86520		
		Lamp Assy, courtesy	81230		
		Adjuster Sub-Assy, Fr Seat, Outer Rh	72011		
		Adjuster Sub-Assy, Fr Seat, Outer Lh	72012		
		Adjuster Sub-Assy, Fr Seat, Outer Lh	72012		
		Adjuster Sub-Assy, Fr Seat, Inner Rh	72021		
		Adjuster Sub-Assy, Fr Seat, Inner Lh	72022		
		Adjuster Sub-Assy, Fr Seat, Inner Lh	72022		
		Handle, Seat Track Adjusting	72211		
		Pipe Sub-Assy, Reclining Connecting	72501		
		Reinforce Sub-Assy, Fr Body Plr Ctr	61037		
		Reinforce Sub-Assy, Ctr Body Plr Inn Lh	61038		
		Reinforcement, Roof Side Rail, Outer Rh	61245		
		Reinforcement, Roof Side Rail, Outer Lh	61246		
		Reinforce Sub-Assy, Rocker, Outer Rh	61403		
		Reinforce Sub-Assy, Rocker, Outer Lh	61404		
		Shield, Fr Seat Cushion, Lwr Rh	71873		
		Shield, Fr Seat Cushion, Lwr Lh	71874		
		Cover, Seat Track Bracket, Inner Fr	72127		
		Cover, Seat Track Bracket, Inner Rh	72157		
		Cover, Seat Track Bracket, Inner Lh	72158		
		Louver Sub-Assy, Cowl Top Ventilator, Rh	55708		
		Shield, Cowl Vent Splash, Rh	55751		

**"SEC. 737. FELLOWSHIP AND EXCHANGE PROGRAMS.**

22 USC 7907.

"The Secretary of State, in coordination with the Secretary of Energy, the Secretary of Commerce, and the Administrator of the Environmental Protection Agency, shall carry out fellowship and exchange programs under which officials from developing countries visit the United States to acquire expertise and knowledge of best practices to reduce greenhouse gas intensity in their countries.

**"SEC. 738. AUTHORIZATION OF APPROPRIATIONS.**

22 USC 7908.

"There are authorized to be appropriated such sums as are necessary to carry out this part.

**"SEC. 739. EFFECTIVE DATE.**

22 USC 7901  
note.

"Except as otherwise provided in this part, this part takes effect on October 1, 2005."

## **TITLE XVII—INCENTIVES FOR INNOVATIVE TECHNOLOGIES**

**SEC. 1701. DEFINITIONS.**

22 USC 16511.

In this title:

(1) **COMMERCIAL TECHNOLOGY.**—

(A) **IN GENERAL.**—The term "commercial technology" means a technology in general use in the commercial marketplace.

(B) **INCLUSIONS.**—The term "commercial technology" does not include a technology solely by use of the technology in a demonstration project funded by the Department.

(2) **COST.**—The term "cost" has the meaning given the term "cost of a loan guarantee" within the meaning of section 502(5)(C) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(C)).

(3) **ELIGIBLE PROJECT.**—The term "eligible project" means a project described in section 1703.

(4) **GUARANTEE.**—

(A) **IN GENERAL.**—The term "guarantee" has the meaning given the term "loan guarantee" in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

(B) **INCLUSION.**—The term "guarantee" includes a loan guarantee commitment (as defined in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a)).

(5) **OBLIGATION.**—The term "obligation" means the loan or other debt obligation that is guaranteed under this section.

**SEC. 1702. TERMS AND CONDITIONS.**

22 USC 16512.

(a) **IN GENERAL.**—Except for division C of Public Law 108–324, the Secretary shall make guarantees under this or any other Act for projects on such terms and conditions as the Secretary determines, after consultation with the Secretary of the Treasury, only in accordance with this section.

(b) **SPECIFIC APPROPRIATION OR CONTRIBUTION.**—No guarantee shall be made unless—

(1) an appropriation for the cost has been made; or



Public Law 109–58  
109th Congress

An Act

Aug. 8, 2005

(H.R. 6)

Energy Policy Act  
of 2005,  
42 USC 15801  
note.

To ensure jobs for our future with secure, affordable, and reliable energy.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

(a) **SHORT TITLE.**—This Act may be cited as the “Energy Policy Act of 2005”.

(b) **TABLE OF CONTENTS.**—The table of contents for this Act is as follows:

Sec. 1. Short title; table of contents.

**TITLE I—ENERGY EFFICIENCY**

**Subtitle A—Federal Programs**

- §§ 101. Energy and water saving measures in congressional buildings.
- §§ 102. Energy management requirements.
- §§ 103. Energy use measurement and accountability.
- §§ 104. Procurement of energy efficient products.
- §§ 105. Energy savings performance contracts.
- §§ 106. Voluntary commitments to reduce industrial energy intensity.
- §§ 107. Advanced Building Efficiency Testbed.
- §§ 108. Increased use of recovered mineral component in federally funded projects involving procurement of cement or concrete.
- §§ 109. Federal building performance standards.
- §§ 110. Daylight savings.
- §§ 111. Enhancing energy efficiency in management of Federal lands.

**Subtitle B—Energy Assistance and State Programs**

- §§ 121. Low-income home energy assistance program.
- §§ 122. Weatherization assistance.
- §§ 123. State energy programs.
- §§ 124. Energy efficient appliance rebate programs.
- §§ 125. Energy efficient public buildings.
- §§ 126. Low income community energy efficiency pilot program.
- §§ 127. State Technologies Advancement Collaborative.
- §§ 128. State building energy efficiency codes incentives.

**Subtitle C—Energy Efficient Products**

- §§ 131. Energy Star program.
- §§ 132. HVAC maintenance consumer education program.
- §§ 133. Public energy education program.
- §§ 134. Energy efficiency public information initiative.
- §§ 135. Energy conservation standards for additional products.
- §§ 136. Energy conservation standards for commercial equipment.
- §§ 137. Energy labeling.
- §§ 138. Intermittent escalator study.
- §§ 139. Energy efficient electric and natural gas utilities study.
- §§ 140. Energy efficiency pilot program.
- §§ 141. Report on failure to comply with deadlines for new or revised energy conservation standards.

**Subtitle D—Public Housing**

- Sec. 151. Public housing capital fund.

## [Maker Bright Auto goes dark, blasts stalled DOE loan](#)

March 3, 2012, in *Uncategorized*, by *cradmin*

Bright Automotive was counting on a U.S. government loan to build a factory for its hybrid utility van, but after three years of waiting, it's forced to shut down.



The idea van used lightweight materials, an aerodynamic design, and plug-in hybrid power to achieve a big jump in fuel efficiency.

Profile:  
Martin LaMonica/CNET)

Bright Automotive designed a unique plug-in electric vehicle, but failure of a government loan to come through has forced it to shut down.

The CEO and chief operation officer of Bright Automotive earlier this week sent a [letter](#) to Energy Secretary Steven Chu saying the company has withdrawn its loan application. Without financing to build a factory, the company cannot build its product and so it is shutting down.

Bright Automotive made one prototype utility van, which used lightweight materials and a hybrid electric power train to achieve up to 100 miles per gallon. With the vehicle designed specifically for commercial-delivery workers or trades people, the company had hoped government agencies, such as the U.S. Postal Service, would be customers.

The company had lined up more than \$200 million in private capital commitments, including an investment from General Motors, but was never able to close a loan from the DOE's Advanced Technology Vehicles Manufacturing (ATVM) program to start production. It was requesting \$314 million.

In the letter, CEO Reuben Manger and COO Mike Donoughe said the company had been told in August 2010 that loan approval was expected within weeks. But after three years of due diligence, the loan was never approved.

"We're not giving up, but we're not giving in either," Manger said, having in hand a tremendous tool for progress in this critically strategic battle (of reducing dependence on oil)—a tool that drew the country's best to your or you failed not only in the deployment of funds from ATVM but in disputing these efforts against not just false hope, but false words," Manger wrote.

Other electric-vehicle startups—Tesla Motors and Fisker Automotive—received loan guarantees from the ATVM program to build factories for their

vehicles. Fisker is now the process of negotiating terms of its DOE loan because it did not meet certain milestones. Nissan, Ford, and the Vehicle Production Group are also recipients.

Getting the large amounts of money required to start manufacturing is a common challenge for young energy companies. The DOE provided loans to three solar companies for manufacturing, including Solyndra, which went bankrupt and became a hot political issue.

Another route to financing some companies have taken is to partner and take an investment with large corporations which have manufacturing expertise. Solar startup Solyndra and Sion, for example, brought in investments from Korean manufacturers.

Because of the stock market meltdown in 2008, Bright Automotive was not able to use the public market to raise money and it did not pursue funding from China until it was well into the DOE loan process. "The only opportunities for 100 percent private equity markets are abroad. We made it clear we were an American company, with American workers developing advanced, deliverable and clean American technology," Manger and Donoughe wrote.

There are more than 100 applications for the ATVM program but only one relatively small \$50 million loan since December 2008, according to Joann Muller, the Detroit bureau chief for Forbes. Because of the political fall out around Solyndra's bankruptcy, no loans are expected to be approved before the November election is noted.

"If we had known three years ago what we know now, we'd be a Chinese company—and we'd still be in business," Donoughe told Forbes.

Article source:

# EV maker Bright Auto goes dark, blasts stalled DOE loan

by **Martin LaMonica** | March 2, 2012 6:51 AM PST

**Summary:** Bright Automotive was counting on a U.S. government loan to build a factory for its hybrid utility van, but after three years of waiting, it's forced to shut down.



The Idea van used lightweight materials, an aerodynamic design, and plug-in hybrid power to achieve a big jump in fuel efficiency.

(Credit: Martin LaMonica/CNET)

Bright Automotive designed a unique plug-in electric vehicle, but failure of a government loan to come through has forced it to shut down.

The CEO and chief operation officer of Bright Automotive earlier this week sent a **letter** [<http://download.gannett.edgesuite.net/detnews/2012/pdf/0228brightauto.pdf>] to Energy Secretary Steven Chu saying the company has withdrawn its loan application. Without financing to build a factory, the company cannot build its product and so it is shutting down.

designed specifically for commercial delivery workers or truckers, the company had hoped government agencies, such as the U.S. Postal Service, would be customers.

The company had lined up more than \$200 million in private capital commitments, including an investment from General Motors, but was never able to close a loan from the DOE's Advanced Technology Vehicles Manufacturing (ATVM) program to start production. It was requesting \$314 million.

In the letter, CEO Reuben Munger and COO Mike Donoughe said the company had been told in August 2010 that loan approval was expected within weeks. But after over three years of due diligence, the loan was never approved.

## Related stories

- **Bright Automotive to enter electric-car derby** [[http://www.cnet.com/8301-11128\\_3-10165562-54.html](http://www.cnet.com/8301-11128_3-10165562-54.html)]
- **GM invests in electric vehicle startup Bright** [[http://www.cnet.com/8301-11128\\_3-20012483-54.html](http://www.cnet.com/8301-11128_3-20012483-54.html)]
- **Five things we learned at the ARPA-E Summit** [[http://www.cnet.com/8301-11386\\_3-57387461-76/five-things-we-learned-at-the-arpa-e-summit/](http://www.cnet.com/8301-11386_3-57387461-76/five-things-we-learned-at-the-arpa-e-summit/)]

"Yet, having in hand a tremendous tool for progress in this critically strategic battle (of reducing dependence on oil)--a tool that drew the country's best to your door--you failed not only in the deployment of funds from ATVM but in dissipating these efforts against not just false hope, but false words," Munger wrote.

Two other electric-vehicle startups--Tesla Motors and Fisker Automotive--received loan guarantees from the ATVM program to build factories for their **cars** [<http://reviews.cnet.com/car-tech/>]. Fisker is now the process of negotiating terms of its DOE loan because it did not meet certain milestones. Nissan, Ford, and the Vehicle Production Group are also recipients.

Getting the large amounts of money required to start manufacturing is a common challenge for young energy companies. The DOE provided loans to **three solar companies for manufacturing** [[http://www.cnet.com/8301-11386\\_3-57388792-76/doe-backed-abound-solar-cuts-factory-line/](http://www.cnet.com/8301-11386_3-57388792-76/doe-backed-abound-solar-cuts-factory-line/)], including Solyndra, which went bankrupt and become a hot political issue.

Another route to financing some companies have taken is to partner and take an investment with large corporations which have manufacturing expertise. Solar startups HeliVolt and Stion, for example, brought in investments from Korean manufacturers.

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**United States Department of Energy**  
**Office of Public Affairs**  
*Washington, D.C. 20585*

**FOR MEDIA CONTACT:**  
Aly Baumgardner, (202) 586-4940

**FOR IMMEDIATE RELEASE**  
**Thursday, November 6, 2008**

**FACT SHEET: ADVANCED TECHNOLOGY VEHICLES MANUFACTURING  
LOAN PROGRAM**

On November 5, 2008, the Department of Energy issued the Interim Final Rule and accomplished writing the rule for Section 136 of EISA 2007 in approximately half of the 60-day expedited timeframe mandated by Congress. Historically, rulemaking at DOE takes 18 months.

The Advanced Technology Vehicles Manufacturing Loan Program (ATVMLP) was authorized under Section 136 of the Energy Independence and Security Act of 2007 (P.L. 110-140). Section 136 is under the sole management and responsibility of the Department of Energy.

The FY09 Continuing Resolution authorized up to \$25 billion in direct loans to eligible applicants for the costs of reequipping, expanding, and establishing manufacturing facilities in the U.S. to produce advanced technology vehicles, and components for such vehicles. These vehicles must provide meaningful improvements in fuel economy performance.

The Interim Final Rule is effective immediately and allows DOE to begin accepting applications.

Upon publication of the rule in the Federal Register, the Department will open the window to receive applications for the loan program. Evaluation of substantially complete applications can begin as soon as those applications are received.

The rule protects the taxpayers and provides specific loan parameters for automobile manufacturers to develop advanced vehicle technologies – a win, win for all parties.

As demonstrated by the early issuance of this Interim Final Rule, DOE is committed to moving expeditiously to implement this important rulemaking. DOE

- The timing for the issuance of funds will depend on when applications are submitted, application thoroughness, and attainment of any required permits or approvals.
- This program was created by Congress to help automakers get the financing needed to retool older plants and equipment to produce energy-efficient vehicles – DOE is doing everything Congress has authorized it to do.
- DOE encourages the automakers and other eligible companies to apply for these loans so that qualifying projects can produce more fuel-efficient vehicles which consumers are demanding.
- The law that Congress passed had many restrictions that would have prevented financing from flowing quickly to the auto companies. DOE has done its best to accelerate funding within the confines of the law Congress passed.
- The Department's job is to implement the legislation that Congress passed. DOE is acting consistent with the purposes and with the amount of flexibility provided for in the legislation.

#### Applications:

- In accordance with the statutory language, the Interim Final Rule identifies qualifying elements for the loan program and application requirements.
- Applicants will be allowed to make multiple loan requests in a single application.
- Applications will be reviewed as they are submitted and considered in tranches. The deadline for the first tranche is December 31, 2008.
- Following a 30 day public comment period on the Interim Final Rule, DOE will evaluate the program and determine when to issue a Final Rule.

#### Eligibility:

- Congress set forth the criteria for projects and costs eligible to receive direct loans. The key criteria for qualified advanced technology vehicles or qualified components require:
  - Manufacturing facilities be located in the U.S.;
  - Engineering integration be performed in the U.S.;
  - Costs be reasonably related to the reequipping, expanding, or establishing a manufacturing facility in the U.S.; and
  - Costs of engineering integration be performed in the U.S.

baseline:

The Interim Final Rule established the "base year" to be vehicle model year 2005.

To identify vehicles with substantially similar attributes, DOE grouped vehicles by classes previously defined by EPA for the purpose of fuel economy ratings as well as additional subclasses created by DOE for performance vehicles (e.g., sports cars).

In accordance with the statute, in order to qualify as an advanced technology vehicle under the Interim Final Rule, an applicant must demonstrate that a vehicle's fuel economy performance is at least 125% of the average MY 2005 fuel economy for the appropriate class.

For more information visit DOE's Advanced Technology Vehicles Manufacturing Loan Guarantee program website: <http://www.atvloan.energy.gov/>

**-DOE-**

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###

The Honorable Charles H. Taylor  
Chairman  
Subcommittee on Interior  
and Related Agencies  
Committee on Appropriations  
U.S. House of Representatives  
Washington, DC 20515

Dear Mr. Chairman:

Enclosed is the *Fuel Cell Report to Congress*. The Conference Report (House Report 107-234, page 120) accompanying Public Law 107-63, enacted November 2001, making appropriations for the Department of the Interior and Related Agencies, requests the Department of Energy to report to the House and Senate Committees on Appropriations, on the technical and economic barriers to the use of fuel cells in transportation, potable power, stationary, and distributed generation applications. The Conference Report also requested that the Department provide an interim assessment that describes preliminary findings about the need for public and private cooperative programs to demonstrate the use of fuel cells in commercial-scale applications.

The enclosed report combines our response for both the interim assessment and the final report. This comprehensive report on fuel cell technology stresses the importance of hydrogen and establishes timeframes consistent with the President's newly announced Hydrogen Fuel Initiative. The enclosed report describes the following findings:

- § Fuel cell technologies offer the Nation unique opportunities for unprecedented reductions in both energy use and emissions for transportation and stationary power applications.
- § Public and private cooperative programs are needed to overcome major technical, institutional, and economic barriers to realize potential fuel cell benefits of reducing dependence on imported oil, improving air quality, and reducing greenhouse gas emissions.
- § Cost and durability are the primary technical barriers to commercializing fuel cells. Considerably more government and industry cooperative



resources.

- § A new hydrogen production, delivery, and refueling infrastructure is necessary for transportation fuel cell technology to achieve its potential energy and environmental benefits. Because of the large economic implications of a change in motor fuel infrastructure, a cooperative approach that includes energy and auto industries, as well as the United States and other government organizations, is essential.

Based on these findings, the Department recommends the following:

- § Core Technology Development should focus more attention on advanced materials, manufacturing techniques, and other advancements to lower cost, increase durability, and improve reliability of fuel cell systems.
- § More emphasis must be placed on hydrogen production and delivery infrastructure, storage, codes and standards development, and education.

In response to the need for public and private cooperative partnerships, the Department recommends the following cost-shared partnerships:

- § Stationary and Distributed Generation Partnership to continue robust research activities to lower costs and improve durability, and to establish necessary field evaluations leading to commercialization.
- § Transportation and Infrastructure Partnership to test fuel cell vehicles and evaluate critical cost, performance, and reliability information; and to address safety, cost, and standardization issues associated with a hydrogen infrastructure for fuel cell vehicles.

Government and private sector commitment of resources is necessary due to the large capital investment required to achieve increased energy security and dramatically reduced emissions; to provide an independent assessment of technological progress; and to manage the risks and expectations on behalf of taxpayers and investors. Government commitment is critical to assure private industry investment over the long term.

For any questions concerning the report, please feel free to contact  
Michael Bloomer, Office of Management, Budget and Evaluation, at  
8526.

Sincerely,

A handwritten signature in black ink, appearing to read "D. K. Garman", enclosed within a large, hand-drawn oval. The signature is written in a cursive style.

David K. Garman  
Assistant Secretary  
Energy Efficiency and Renewable Energy

**LOAN GUARANTEE  
SOLICITATION ANNOUNCEMENT**



**U.S. Department of Energy  
Loan Guarantee Program Office**

**FEDERAL LOAN GUARANTEES FOR COAL-BASED POWER  
GENERATION AND INDUSTRIAL GASIFICATION  
FACILITIES THAT INCORPORATE CARBON CAPTURE AND  
SEQUESTRATION OR OTHER BENEFICIAL USES OF  
CARBON AND FOR ADVANCED COAL GASIFICATION  
FACILITIES**

**Solicitation Number: DE-FOA-0000008**

**Announcement Type: Initial**

<b>Issue Date:</b>	<b>September 22, 2008</b>
<b>Part I Application Due Date:</b>	<b>December 22, 2008</b>
<b>Part II Application Due Date:</b>	<b>March 23, 2009</b>

In March 2009, President Obama pledged to have 1 million plug-in hybrid electric vehicles (PHEVs) on the road by 2015. While the penetration of electric drive vehicles in the American automobile market could significantly reduce petroleum use, vehicle emissions, and fuel expenditures countrywide, there are several challenges to implementing the President's 2015 goal.

Barriers to implementation include the current cost of batteries for electric vehicles (which reflects the limited availability of raw materials, technical limitations, and low production volumes), as well as the lack of supporting infrastructure and technical standards necessary for mass penetration of these vehicles into the market. Furthermore, for electric vehicles to become a viable option for the driving public, their potential impacts on the electricity grid must be well understood.

The federal government promotes electric vehicles through policies supporting research and development, manufacturing, and deployment and integration. While several of these programs are already underway, legislation before Congress proposes new policies related to electric drive vehicles. Existing and proposed programs are outlined in the table below. These are in addition to the research and development and deployment programs at the Department of Energy funded through the annual appropriations process.

	Existing Programs	H.R. 3454 Advanced Technology Vehicle Manufacturing Loan Program Authorization Increase	Proposed Programs S. 1462	S. 1733
<b>Manufacturing Assistance</b>	<p><b>Advanced Technology Vehicle Manufacturing Loan Program:</b></p> <p>This program provides loans to companies producing vehicles or components that improve fuel economy at least 25% above 2005 levels. Congress authorized this program through the Energy Efficiency and Security Act (EISA) of 2007 and appropriated \$25 billion in the fall of 2008. In June 2009, DOE granted the first \$8 billion in loans to Ford, Nissan, and Tesla. According to DOE, this program seeks to improve fuel economy through several pathways (rather than by focusing on a single technology). All three of the first grant recipients, however, will work on vehicle electrification. Ford will also apply funds to improve advanced internal combustion engine technologies.</p> <p><b>Electric Drive Vehicle Battery and Component Manufacturing Initiative:</b></p> <p>The American Recovery and Reinvestment Act of 2009 provides \$4 billion for the manufacturing of batteries and electric drive components. In August 2009, DOE awarded grants to 30 recipients. 75% of the investment will support the production of batteries and battery components by U.S. manufacturers as well as a lithium ion battery recycling project. U.S. manufacturers of electric drive train components, including motors and power electronics, will receive the remaining funds. The program will lead to at least \$4 billion in investments because grant recipients must match the government's contribution.</p>	<p>This bill would increase the authorization for the program from \$25 billion to \$50 billion. While these funds may be spent on any advanced technology, it is likely that a significant portion will be spent on plug-in vehicle technologies.</p> <p><b>DOE Vehicle Manufacturing Assistance Program:</b></p> <p>The bill would create a program within DOE to provide funding for the reconstruction or rebuilding of U.S. vehicle and battery manufacturing facilities in order to produce plug-in electric drive vehicles. DOE would determine the appropriate financing mechanism; funds to be provided through allowances from the cap-and-trade program.</p>	<p>This bill would not expand or create any financial assistance programs.</p> <p>The bill would create an EERE research program focused on battery manufacturing and battery systems for electric drive vehicles; this program would be authorized to receive appropriations from 2009 through 2015. S. 1462 does not indicate how this research program would relate to other established and planned DOE activities.</p>	<p>This bill would not expand or create any financial assistance programs for manufacturers.</p>
<b>Vehicle Electrification</b>	<p><b>Plug-in Hybrid Credits</b></p> <p>The Emergency Economic Stabilization Act of 2008 added to the tax credits introduced in EPCA 2005 a credit for plug-in vehicles, both hybrid- and battery-electric. The American Recovery and Reinvestment Tax Act of 2009 (the stimulus package) expanded that credit. The credit is now available for a new plug-in electric drive vehicle having a battery capacity of at least 4 kilowatt-hours, which brings a credit of \$2,500. Each kilowatt-hour of battery added to the credit, up to a maximum of 37,500 for vehicles up to 14,000 lbs gross vehicle weight. As in EPCA 2005, the amount of the credits begins a phase-out after a manufacturer exceeds a vehicle sales limit; in this case 200,000 vehicles.</p> <p>Also, a credit for plug-in conversion kits, allowing the conversion of hybrid-electrics to plug-in hybrids, in the amount of 10% of the cost of the kit is available.</p>	<p><b>DOE Vehicle Electrification Program:</b></p> <p>Both the H.R. 3454 and S. 1462 call for the creation of a vehicle electrification program within DOE. The program would expand upon the Recovery Act efforts to provide financial assistance to deployment and integration projects in multiple regions of the country. In contrast with the Recovery Act initiative, state, local, or tribal governments (rather than companies) must apply for funding, although projects may be jointly sponsored by utilities or private entities. Neither bill specifies a funding mechanism for the awards. Funds may be used to offset the incremental cost of plug-in vehicles, to purchase electric charging infrastructure, or to purchase smart grid equipment. S. 1462 also allows the purchase of advanced batteries with government funds. Both the House and Senate bills require that DOE make data from projects available to the public.</p>	<p><b>DOE Clean Vehicle Technology Fund</b></p> <p>This bill would create the Clean Vehicle Technology Fund to provide financial assistance for the deployment of electric vehicle technology. 5% of total funds must be used to create a clean national transportation low emissions plan, which would establish an electric vehicle strategic deployment goal for 2020 and project the near- and long-term infrastructure and standardization needs for EVs, electricity providers, vehicle manufacturers, and electricity purchasers.</p> <p>The remaining monies in the Clean Vehicle Technology Fund must be used to support the development and demonstration of light- and heavy-duty plug-in electric vehicles. DOE would establish pilot projects to determine regions in the U.S. most ready to deploy electric vehicle infrastructure.</p>	
	<p><b>Vehicle Electrification Initiative:</b></p> <p>The Recovery Act provides \$400 million in funding for vehicle electrification activities. DOE awarded approximately 95% of this funding to 11 grant recipients for deployment and integration projects. Dozens of locations around the country will host test demonstrations of plug-in hybrid and all-electric vehicles. Grant funds will help cover the cost of purchasing thousands of vehicles for these projects and the cost of installing charging infrastructure. The project proposals involve a variety of vehicle types, including pick-up trucks, mini-vans, delivery trucks, and shuttle buses. DOE has distributed the remaining funds to seven educational and workforce training programs in order to facilitate the transition to electric transportation systems.</p>	<p><b>Federal Fleet Pilot Program:</b></p> <p>The Senate bill would encourage the penetration of plug-in vehicles in the federal fleet by creating a pilot deployment project housed within the Federal Energy Management Program. The program is authorized to provide grants to offset the incremental cost of pre-commercial plug-in vehicles and the cost of installing recharging infrastructure at federal facilities between 2010 and 2015.</p>		

# Feeling a chill from Solyndra

By [Bill Vlasic and Matthew L. Wald](#) / *New York Times News Service*

Published: March 13, 2012 4:00AM PST

More than \$16 billion in loans authorized five years ago by Congress to develop fuel-efficient vehicles has yet to be disbursed, with applicants for the money complaining that the Energy Department is crippling plans for greener cars and trucks at a time of rising gas prices.

Some companies contend that the loans, administered by energy officials, have dried up because of a political firestorm that followed the bankruptcy last year of the solar panel company Solyndra, which had received a federal loan from a related program. The bankruptcy fed Republican criticism of the Obama administration's handling of clean energy loans because one of the investors in Solyndra was a major fundraiser for the president.

"Since Solyndra became politicized last fall, the Department of Energy has failed to make any other loans," said William Santana Li, chief executive of Carbon Motors, which on Wednesday dropped its \$310 million application to build police cars with diesel engines that use 40 percent less fuel than current models.

Echoing other companies that were denied loans or have withdrawn their applications, Li said that in recent months federal officials had repeatedly altered the terms of the possible loans. Last month, Chrysler withdrew its application for \$3.5 billion in loans — after three years of negotiations — because the government kept raising the amount of collateral required, company officials said.

"I don't want any favors," Sergio Marchionne, the Chrysler chief executive, said before the withdrawal. "I just don't want to be mistreated."

Energy Department officials declined to discuss specific loan requests because of confidentiality agreements, but they denied that the political fallout of Solyndra's bankruptcy was an issue.

"It's not unusual for terms to continually shift and change and evolve as a negotiation moves forward," said Damien LaVera, a department spokesman. "It's a constantly evolving process from the day they apply to the day they close their loans."

Supporters of the program have expressed disappointment with the rash of withdrawals.

"It's unfortunate that more companies have not been approved recently," said Sen. Debbie Stabenow, D-Mich. "We are looking at options to ensure that the initiative will continue to help manufacturers create advanced technology jobs in America."

Applicants for the loans, big and small, said the department had inexplicably altered financial terms of pending loans with no earlier hint that the applications might be in jeopardy.

The consequences have been dire for Bright Automotive, a startup in Michigan that withdrew its application last month. It is shutting down operations to produce a plug-in hybrid delivery van after energy officials suddenly demanded that the company raise \$345 million in private funds for a project that needed a \$314 million loan.

Company executives said that federal officials told them that they were impressed with the Bright van, but often talked about how the Energy Department could not risk "another Solyndra situation."

ceased operations last August but it was evident to the Energy Department some months earlier that the company was in trouble; in May, 2010, some White House officials were concerned that the company might be unable to raise the \$1.5 billion loan fund, known as the Advanced Technology Vehicle Manufacturing program, or ATVM, was created in conjunction with new federal fuel economy requirements. The intent was for loans to spur development of vehicles that would get 20 percent improvements in gas mileage over models they replaced. When the program has become all the more relevant because fuel-efficiency rules were increased even more in 2011 to a target of 54 miles per gallon by 2025.

With President Barack Obama's emphasis on promoting cleaner cars, only \$8.4 billion of the \$25 billion authorized by Congress for the ATVM program has been allocated, with just one small project of \$50 million approved in the last two years. With the recent withdrawals of applications, it is unclear whether any other applications are still being considered.

Biggest loans so far went to Ford and Nissan for electric-car projects. When Chrysler tried to tap into the same money, the delays became so frustrating that its chief executive, Marchionne, went to Washington for an unusual one-on-one meeting with the energy secretary, Steven Chu.

"Can you just give us a decision, yes or no?" he asked Chu, according to company officials who spoke on condition of anonymity because they were not authorized to comment on the talks.

Chu refused to be pinned down, these people said, and last month, Chrysler withdrew its application. The Senate Finance Committee on Energy and Natural Resources is expected today to discuss the clean energy loan program, including both the auto loan program and the related renewable energy loan program, which provides financing for Solyndra.



# Setting the Context:

## Creating Value from Sustainability Investments

Sheila Bonini  
McKinsey & Company

June 2010

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[6450-01-P]

**DEPARTMENT OF ENERGY**

**10 CFR Part 609**

**RIN 1901-AB27**

**Loan Guarantees for Projects that Employ Innovative Technologies**

**AGENCY:** Office of the Chief Financial Officer, Department of Energy.

**ACTION:** Proposed rule.

**SUMMARY:** On October 23, 2007, the Department of Energy (DOE or the Department) published a final rule establishing regulations for the loan guarantee program authorized by Section 1703 of Title XVII of the Energy Policy Act of 2005 (Title XVII or the Act). Section 1703 of Title XVII authorizes the Secretary of Energy (Secretary) to make loan guarantees for projects that “avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued.” Section 1703 of Title XVII also identifies ten categories of technologies and projects that are potentially eligible for loan guarantees. The two principal goals of section 1703 of Title XVII are to encourage commercial use in the United States of new or significantly improved energy-related technologies and to achieve substantial environmental benefits. DOE believes that commercial use of these technologies will help sustain and promote economic growth, produce a more stable and secure energy supply and economy for the United States, and improve the environment.





## Department of Energy

Washington, DC 20585

### RECORD OF CATEGORICAL EXCLUSION FOR

#### AES ES Westover LLC, Project Dyno Electric Grid Stability Advanced Battery Systems

##### Description of Proposed Action:

The Department of Energy's (DOE) proposed action is to issue a loan guarantee to AES ES Westover LLC for the proposed Project Dyno (the Project), pursuant to Title XVII of the Energy Policy Act of 2005. The Project is an advanced lithium ion battery and power control system used to store power to help maintain the stability of the electric power grid. The Project would be located at the site of an operating coal-fired power generating station immediately adjacent to an existing electrical substation. It would be composed of ten, 2 megawatt (MW) metal containers consisting of six 330 kVA (Kilovolt Ampere) inverters and racks with lithium ion batteries. These units would be connected through isolation transformers, switchgear, and step-up transformers to the high voltage system. The project would be able to charge or discharge at up to 20MW in each instant up to a maximum of 5MW/h of energy in or out of the system.

The project area is a previously disturbed parking lot measuring approximately 0.57 acres (25,200 square feet) and the total area taken up by the above-grade, concrete column foundations would be approximately 800 square feet. The site development work would consist of demolition of the existing parking area, initial grading and earthwork, construction of asphalt paved access road to the facility, construction of aggregate shoulder for access road, construction of permanent drainage facilities, construction of perimeter retaining walls (as required), followed by installation of the units.

The proposed Project is located at Westover Station, 720 Riverside Drive, Village of Town of Union and Johnson City, New York.

##### Number and Title of Categorical Exclusion:

The proposed action as described in the above action description falls within the bounds of categorical exclusion B2.5. The full text of the categorical exclusion is provided below.

B2.5 as provided in 10 CFR § 1021, Appendix B to Subpart D, Safety and environmental improvements of a facility, including replacement and upgrade of facility components, that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements may include, but are not limited to: Replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground or belowground tanks and related piping if there is no evidence of leakage, based on testing that meets performance requirements



U.S. House of Representatives

**Committee on Oversight and Government Reform**

**Darrell Issa (CA-49), Chairman**



**The Department of Energy's Disastrous Management of Loan Guarantee Programs**

STAFF REPORT  
U.S. HOUSE OF REPRESENTATIVES  
112<sup>TH</sup> CONGRESS  
March 20, 2012

After conducting a substantial review of the Department of Energy's (DOE) loan guarantee program, it is clear that the significant losses absorbed by taxpayers as a result of Solyndra's collapse is just the beginning. The investigation conducted by the House Committee on Oversight and Government Reform has uncovered numerous examples of dysfunction, negligence and mismanagement by DOE officials, raising troubling questions about the leadership at DOE and how it has administered its loan guarantee programs.

By the expiration of § 1705 program in September 2011, the DOE had approved 27 projects totaling more than \$14.5 billion in guaranteed loans. Inexplicably, DOE management has turned a blind eye to the risks that have been glaringly apparent since the inception of the program.

This report will demonstrate how DOE loan commitments exposed taxpayer funds to excessive risk as a result of DOE's bias toward approving loans without regard to warning signs. The Committee identified many cases where the DOE disregarded their own taxpayer protections, ignored lending standards and eligibility requirements and, as a result, amassed an excessively risky loan portfolio. After review of internal emails, staff have identified instances demonstrating that when DOE faced barriers that placed loan approvals at risk, DOE staff simply sought to justify and overcome the barriers, rather than giving the barriers due consideration.

DOE has overseen a process wrought with misdirection, changing and expanding requirements, unexplained delays, gross mischaracterizations, and a never-ending cycle of excuses. Not only does it appear that DOE purposely directed taxpayer funds at a failing enterprise, DOE's action robbed taxpayers of genuine investment toward renewable energy.

- The Committee has identified a pattern indicative of poor management and a bias toward unconstrained lending that resulted in the creation of a high risk, speculative and undiversified loan portfolio that could ultimately result in substantial loss of taxpayer dollars. (pg. 3)
- From the very inception of the program, warnings signs existed pointing to a likely loss of taxpayer dollars that went ignored by Administration officials. (pg. 7)
- DOE invested a disproportionate amount of its funds into solar technology leaving taxpayers vulnerable by overemphasizing a single technology. 16 of the 27 1705-backed projects employed solar technology – that represented 80 percent of DOE’s funds. (pg. 7)
- The billions of dollars in loan guarantees and cash grants directed at a Spanish firm, Abengoa, reveal the excessive risks associated with directing that volume of subsidy to a single firm. Abengoa managed to obtain a DOE loan commitment for the lowest rated project across the entire DOE Junk portfolio – which received an extraordinarily low CCC rating and was still approved by DOE for a direct loan to the project. This overinvestment in this single firm will likely cause substantial harm to the taxpayer. (pg. 12)
- DOE’s failure to diligently oversee costs and set prudent limitations on executive compensation while it distributed billions of dollars in loan commitments has created a significant moral hazard that has created enormous risks for DOE and taxpayer funds. (pg. 14)
- Beacon Power Corp, the second recipient of a § 1705 loan guarantee, paid three executives more than a quarter million dollars in bonuses in March 2010. Eighteen months later, Beacon declared bankruptcy – leaving taxpayers to repay the loan. (pg. 13)
- BrightSource Energy, recipient of a \$1.6 billion loan guarantee to build a solar generation facility, has spent more than \$56 million on a desert tortoise relocation program. BrightSource has indicated that the exploding cost of tortoise relocation program threatens to derail the entire \$1.6 billion project – leaving taxpayers on the hook for the enormous sums on money spent on construction thus far. (pg. 14)
- DOE has engaged in a disturbing pattern of suspending the approval of a credible project that adheres to all stated standards, only to later approve massive funding for a project proven to be nowhere nearly as far along in the process as DOE purported. DOE’s favoritism significantly harmed numerous companies that had relied on the promise of 1705 financing. The perception is that DOE actively misleads applicants about the status of their loan application, thereby encouraging these firms to misallocate capital, which has led to financial harm. (pg. 17-19)

due to ward approving loans without regard to warning signs. The Committee identified many cases where the DOE disregarded their own taxpayer protections, ignored lending standards and eligibility requirements and, as a result, amassed an excessively risky loan portfolio. After review of internal emails, staff have identified instances showing that when DOE faced barriers that placed loan approvals at risk, DOE staff simply sought to justify and overcome the barriers, rather than giving the barriers due consideration. (pg. 22)

- Substantial evidence indicates that in two cases officials in the Loan Programs Office deliberately mischaracterized substantively identical technologies as dissimilar. Additionally, there is evidence that applicants, with the encouragement of department officials, intentionally mischaracterized their projects as “innovative” in an effort to access the Federal Financing Bank and defeat these prudential requirements. (pg. 23-28)
- There appears to be a significant amount of evidence indicating that DOE manipulated analysis and strategically modified evaluations in order to issue loans to First Solar that would qualify under the statutory guidelines. An application that should otherwise fail, but instead passes under improper influence and through manipulation of analysis, results in the defrauding of taxpayers and misappropriation of assets. (pg. 32)
- DOE Violated the Statutory Requirement that Projects Commence Construction by September 30, 2011. (pg. 32)
- In almost every public statement about its loan guarantee program, DOE touts job creation. DOE’s Loan Programs Office webpage proudly proclaims that DOE expects the loans and loan guarantees to “employ” over 60,000 people. The site also breaks down the number of jobs created or saved by each loan or loan guarantee, and issues press releases for specific projects discussing job creation. These figures are misleading and attempt to pass off jobs that already existed as new jobs. (pg. 37-40)
- Solopower accepted \$40 million of Oregon taxpayer money in addition to DOE’s approval of a \$197 million loan via the Federal Financing Bank (FFB). They received this federal assistance despite a rather dire prediction of Solopower’s prospects by Standard & Poor’s (S&P) which predicted that Solopower will fail to meet its debt obligations. (pg. 47)
- Despite warnings from both S&P and its own internal analysis regarding risky business models, DOE proceeded with a \$25 million grant for Beacon Power. In April 2010, S&P evaluated the loan guarantee project and assigned it a dismal CCC+ credit rating noting that “Beacon is currently an unprofitable start-up” and that “significant exposure to commodity price volatility” could significantly hurt the company. S&P ran two default scenarios, both of which demonstrated that taxpayers would lose millions. (pg. 49)

conditional loan guarantee, and assigned it a junk credit rating. Fitch gave the project a credit rating of "B" (worse than Solyndra's) with a recovery estimate of only 45%. Fitch labeled the project "highly speculative" and described Abound as lagging in technology relative to its competitors, failing to achieve stated efficiency targets, and expecting that Abound Solar will suffer from increasing commoditization and pricing pressures. Abound Solar announced on March 1<sup>st</sup> that it would stop producing solar panels and would fire 180 employees, even though it has already received \$70 million from DOE. (pg. 50-51)

- On June 15, 2010, DOE announced that it would conditionally issue a \$98.5 million partial loan guarantee to Nevada Geothermal Power Company. The loan did not finance any new construction and therefore did not help to create a single new job. Yet, in the press release for the project, Secretary Chu and Senate Majority Leader Harry Reid touted Blue Mountain's potential, with Senator Reid stating, "I am glad to see economic recovery funding being used to put Nevadans to work on a project that will help us achieve energy independence..." DOE's awarding of this loan guarantee raises questions about why DOE was investing significant taxpayer resources in an entity with well-established financial difficulties. Nevada Geothermal has a well documented history of major financial problems. By the time DOE conditionally approved the loan guarantee, Nevada Geothermal had already violated contract terms and debt covenants relating to financing from its primary lender, TCW. According to Nevada Geothermal's financial statements, the firm would not avoid default without the benefit of a loan guarantee. (pg. 53-54)

## A. A History of Federal Government Loan Guarantees

For decades federal loan guarantees supported a variety of policy objectives, “including home ownership, university education, small business growth, international development, and others.”<sup>1</sup> In 1976, the Congressional Budget Office (CBO) defined loan guarantees as “a loan or security on which the federal government has removed or reduced a lender’s risk by pledging to repay principal and interest in case of default by the borrower.”<sup>2</sup> Loan guarantees supporting “clean” energy-related projects began in the 1970s as a response to the perception of record high oil prices for the foreseeable future and the notion that the country was in the midst of an “energy crisis.”<sup>3</sup>

The Energy Security Act of 1980 authorized \$20 billion for the development of a synthetic fuels industry via a new government enterprise, the U.S. Synthetic Fuels Corporation (SFC).<sup>4</sup> Loan guarantees were among the public finance tools available to SFC. The Great Plains coal gasification project was the only one of the five SFC projects to utilize a loan guarantee. The Great Plains project (located in Beulah, ND), “which converts lignite coal into pipeline-quality methane (the primary component of natural gas), received a \$2 billion federal loan guarantee (approximately \$1.5 billion of the loan guarantee was actually used) to construct the plant.”<sup>5</sup> Because the value proposition of the project hinged on gas prices remaining high for a long period of time, in 1985, when gas prices dropped below the level at which Great Plains was cost competitive, the project “was not able to meet debt service requirements and subsequently defaulted on its loan obligations.”<sup>6</sup>

The Office of Alcohol Fuels at DOE, created by the Energy Security Act of 1980, had the authority to issue \$265 million in loan guarantees for projects related to alcohol fuels.<sup>7</sup> Three projects received loan guarantees. Of them, “one had to refinance its loan, one experienced technology performance complications, and one ceased operations.”<sup>8</sup> After the failures of loan guarantees via the Energy Security Act of 1980, clean energy loan guarantees were not again funded until the American Recovery and Reinvestment Act of 2009.<sup>9</sup>

A recent report from the Congressional Research Service points out that in 1976 the Congressional Budget Office (CBO) identified inherent problems with loan guarantees that were relevant then and are still relevant today. The background paper, titled “Loan Guarantees:

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<sup>1</sup> PHILLIP R. BROWN, CONGRESSIONAL RESEARCH SERVICE, LOAN GUARANTEES FOR CLEAN ENERGY TECHNOLOGIES: GOALS, CONCERNS, AND POLICY OPTIONS (Jan. 17, 2012), available at <http://www.crs.gov/pages/Reports.aspx?PRODCODE=R42152&Source=search>, [hereinafter Brown]

<sup>2</sup> CONGRESSIONAL BUDGET OFFICE, LOAN GUARANTEES: CURRENT CONCERNS AND ALTERNATIVES FOR CONTROL (Aug. 1978).

<sup>3</sup> Brown, *supra* note 1.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> Title XVII of the Energy Policy Act of 2005 created the renewable energy loan guarantee program at the Department of Energy but did not provide funding for loan guarantees. See generally 42 U.S.C. §§ 16511-16514.

When commercial lenders originate loans that are guaranteed by the government, these lenders may be more concerned with the adequacy of the loan guarantee agreement than by the actual risk of the project. As a result, projects may not receive an adequate amount of due diligence by the lender, therefore increasing the federal government's risk exposure.<sup>10</sup>

The CBO also notes that “while such guarantees reduce the risk of loss to lender and borrower, they cannot reduce the project's risk of economic failure.”<sup>11</sup> Furthermore, the paper explains that loan guarantees can be attractive to Congress because the costs, on paper, appear small but fail to fully account for unforeseen risks.<sup>12</sup> Failing to heed these warnings has led to widespread taxpayer losses from loan guarantees, from Great Plains in 1985 to Solyndra and Beacon Hill in 2011.

## **B. An Overview of the DOE Section 1703 and 1705 Loan Programs**

Congress first authorized the Department of Energy's Loan Guarantee Program under title XVII of the Energy Policy Act of 2005.<sup>13</sup> The program purportedly incentivizes energy innovation by making it easier for companies to secure loans for projects that employ new technologies to promote energy efficiency, renewable energy, and advanced transmission.<sup>14</sup> Section 1703 specifically authorizes the Secretary of Energy to make loan guarantees for projects that employ innovative technology to reduce greenhouse gas emissions.<sup>15</sup> To date, the DOE has conditionally approved three projects under § 1703, totaling \$10.4 billion in guaranteed loans.<sup>16</sup>

The American Recovery and Reinvestment Act of 2009 significantly expanded the Secretary's loan guarantee authority under a newly-created § 1705.<sup>17</sup> This section authorized the Secretary to issue loan guarantees for renewable energy projects – including those employing *non-innovative* technologies – that commenced construction no later than September 30, 2011.<sup>18</sup> Additionally, in contrast to loan guarantees issued under § 1703, the project sponsor did not have to pay for the cost of the loan guarantee because the government covered the credit subsidy

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<sup>10</sup> Brown, *supra* note 1.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> 42 U.S.C. §§ 16511-16514.

<sup>14</sup> U.S. DEP'T OF ENERGY LOAN GUARANTEE PROGRAM, LOAN GUARANTEE SOLICITATION ANNOUNCEMENT: FED. LOAN GUARANTEES FOR PROJECTS THAT EMPLOY INNOVATIVE ENERGY EFFICIENCY, RENEWABLE ENERGY, AND ADVANCED TRANSMISSION AND DISTRIBUTION TECH. (July 29, 2009) [hereinafter *Innovative Solicitation*].

<sup>15</sup> 42 U.S.C. § 16513(a)

<sup>16</sup> U.S. Dep't of Energy Loan Programs Office, List of Programs, *available at* [https://lpo.energy.gov/?page\\_id=45](https://lpo.energy.gov/?page_id=45)

<sup>17</sup> 42 U.S.C. § 16516

<sup>18</sup> 42 U.S.C. § 16516(a)



The DOE issued its first § 1705 loan guarantee solicitation on July 29, 2009.<sup>21</sup> By the expiration of § 1705 program in September 2011, the DOE had approved 27 projects totaling over \$14.5 billion in guaranteed loans.<sup>22</sup> The DOE's Loan Programs Office awards and administers loan guarantees under three sets of official rules: the statutory requirements of § 1703 and 1705, the departmental regulations issued pursuant to statute, and the department's formal solicitations for loan guarantee applications.<sup>23</sup> Naturally, these rules describe the eligibility requirements with increasing specificity. The redundancy and specificity of these criteria testifies to their importance; such prudential regulations make the difference between responsible stewardship of the program and a taxpayer-financed earmark.

This initial report focuses on the Department of Energy's portfolio of loan guarantees issued under § 1705 of Title XVII. These loan guarantees were issued under two solicitations which differed in their eligibility requirements and financing method. The first solicitation targeted projects that employed innovative technologies.<sup>24</sup> Under this solicitation, the project sponsor could acquire the underlying loan from U.S. government through the Federal Financing Bank.<sup>25</sup> The second solicitation created the "Financial Institution Partnership Program."<sup>26</sup> This program accepted projects that employed *non-innovative* (i.e., already commercialized) technology, but required the project sponsor to acquire the underlying loan from a private financial institution.<sup>27</sup>

Committee staff evaluated renewable energy projects that received loan commitments from DOE or from private lenders partnering with DOE. Staff identified a pattern indicative of poor management and a bias toward unconstrained lending that resulted in the creation of a high risk, speculative and undiversified loan portfolio. In this report, we consider all aspects of loan commitments in the context of the broader marketplace to reveal the extent of the risk taxpayers face as a result of competition within the domestic energy industry and the global renewable energy industry.

### C. Overview and Brief History of the ATVM Program

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<sup>19</sup> Innovative Solicitation, *supra* note 14 ("the Recovery Act provides that five billion nine hundred sixty five million dollars (\$5,965,000,000) in appropriated funds be made available until expended to pay the Credit Subsidy Costs").

<sup>20</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, §3(a), 123 Stat. 115 (2009).

<sup>21</sup> Innovative Solicitation, *supra* note 14.

<sup>22</sup> U.S. Dep't of Energy Loan Programs Office, List of Programs, *available at* [https://lpo.energy.gov/?page\\_id=45](https://lpo.energy.gov/?page_id=45)

<sup>23</sup> 42 U.S.C. §§16511-16516; 10 C.F.R. § 609 (2011); Innovative Solicitation, *supra* note 14; U.S. DEP'T OF ENERGY LOAN GUARANTEE PROGRAM OFFICE, LOAN GUARANTEE SOLICITATION ANNOUNCEMENT: FED. LOAN GUARANTEES FOR COMMERCIAL TECH. RENEWABLE ENERGY GENERATION PROJECTS UNDER THE FIN. INST. P'SHIP PROGRAM (Oct. 7, 2009) [hereinafter FIPP Solicitation].

<sup>24</sup> Innovative Solicitation, *supra* note 14.

<sup>25</sup> *Id.*

<sup>26</sup> FIPP Solicitation, *supra* note 23.

<sup>27</sup> *Id.*

2006 as part of § 1501 of the Energy Independence and Security Act of 2007.<sup>28</sup> According to the U.S. Department of Energy (DOE), the purpose of the ATVM Program is to provide “direct loans to support the development of advanced technology vehicles and associated components in the United States.”<sup>29</sup> The Energy Independence and Security Act set aside \$25 billion for direct loans and appropriated another \$7.5 billion to support these loans.<sup>30</sup> To qualify for a direct loan under the ATVM Program, the project and the sponsoring company must meet several criteria. First, in order to be eligible for a loan a company must either manufacture an advanced technology vehicle (ATV) or manufacture components for ATVs. Companies must also be “financially viable without the receipt of additional federal funding for the proposed project other than the ATVM loan.”<sup>31</sup> DOE defines “advanced technology vehicle” as a light duty vehicle that meets Clean Air Act regulations established by the U.S. Environmental Protection Agency (EPA) and is 125 percent of the average of the Corporate Average Fuel Economy (CAFE) for similar vehicles.<sup>32</sup> The loan must finance the reequipping, expanding, or establishing of a manufacturing facility in the United States or the costs of engineering integration performed in the United States.<sup>33</sup>

As of February 2012, the ATVM Program loaned \$8.3 billion to five projects.<sup>34</sup> Most notably, two of the largest companies in the country, Ford Motor Company and Nissan North America, received over \$7.3 billion to retool and upgrade manufacturing facilities for vehicles that were deemed ATVs by DOE.<sup>35</sup> Fisker Automotive and Tesla Motors received \$529 million and \$465 million, respectively, from the ATVM program.<sup>36</sup> Fisker produces plug-in hybrid electric vehicles in a manufacturing plant in Delaware.<sup>37</sup> Its first vehicle, the Karma, costs well over \$100,000 to purchase.<sup>38</sup> Tesla produces three models of plug-in electric cars at its manufacturing plant in California. Finally, The Vehicle Production Group LLC received a \$50 million loan to support the creation of a factory-built wheelchair vehicle that runs on compressed natural gas.<sup>39</sup> DOE had conditionally granted a loan of \$730 million to Severstal North America, a steel subsidiary of OAO Severstal, a multi-billion dollar Russian company, to produce

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<sup>28</sup> Advanced Technology Vehicles Manufacturing Incentive Program, 73 Fed. Reg. 66,721, 66,722 (Nov. 12, 2008) (to be codified at 10 C.F.R. pt. 611).

<sup>29</sup> U.S. Dep’t of Energy Loan Programs Office, Description of ATVM program, *available at* [https://lpo.energy.gov/?page\\_id=43](https://lpo.energy.gov/?page_id=43)

<sup>30</sup> Advanced Technology Vehicles Manufacturing Incentive Program, 73 Fed. Reg. 66,721, 66,722 (Nov. 12, 2008) (to be codified at 10 C.F.R. pt. 611).

<sup>31</sup> U.S. Dep’t of Energy Loan Programs Office, Description of ATVM program, *available at* [https://lpo.energy.gov/?page\\_id=43](https://lpo.energy.gov/?page_id=43)

<sup>32</sup> Advanced Technology Vehicles Manufacturing Incentive Program, 73 Fed. Reg. 66,721, 66,722 (Nov. 12, 2008) (to be codified at 10 C.F.R. pt. 611).

<sup>33</sup> U.S. Dep’t of Energy Loan Programs Office, Description of ATVM program, *available at* [https://lpo.energy.gov/?page\\_id=43](https://lpo.energy.gov/?page_id=43)

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> U.S. Dep’t of Energy Loan Programs Office, Projects: Fisker Automotive, *available at* <https://lpo.energy.gov/?projects=fisker-automotive>; U.S. Dep’t of Energy Loan Programs Office, Projects: Tesla Motors, *available at* <https://lpo.energy.gov/?projects=tesla-motors>

<sup>37</sup> Mike Ramsey and Neal E. Boudette, *Fisker Hires Former Chrysler CEO*, WALL ST. J., Feb. 29, 2012.

<sup>38</sup> *Id.*

<sup>39</sup> U.S. Dep’t of Energy Loan Programs Office, Projects: The Vehicle Production Group LLC, *available at* <https://lpo.energy.gov/?projects=the-vehicle-production-group-llc>

companies have applied for loans through the program, as well as, an overwhelming majority still await a decision from DOE on the status of their applications.<sup>41</sup>

## II. The DOE Portfolio of Loan Commitments

DOE committed to issuing 27 loans or loan guarantees under the § 1705 program. These loan commitments total in excess of \$16 billion. At the outset, the ratings agencies rated 23 of these loans as non-investment grade categories, also known as “Junk,” due to their poor credit quality, while the other four were rated BBB, which is at the lowest end of the “investment” grade of categories. Overall, DOE’s 1705 portfolio’s initial unweighted average rating was BB-, which is considered “Junk grade.” According to Fitch, a ‘BB’ rating is speculative and indicates an elevated vulnerability to default risk.<sup>42</sup> Accordingly a BB- is on the low end of what are considered to be “speculative investments,” barely escaping the classification of “highly speculative” investments.

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<sup>40</sup> Press Release, *Department of Energy Offers Several Dearborn, LLC a \$730 Million Conditional Loan Commitment for Michigan Project*, U.S. Dep’t of Energy, July 13, 2011.

<sup>41</sup> Tim Logan, *Loans for Green Car Plants are in Limbo*, Stltoday.com, Mar. 16, 2012, available at [http://www.stltoday.com/business/local/loans-for-green-car-plants-are-in-limbo/article\\_89f33f3e-6ebf-11e1-89a9-0019bb30f31a.html](http://www.stltoday.com/business/local/loans-for-green-car-plants-are-in-limbo/article_89f33f3e-6ebf-11e1-89a9-0019bb30f31a.html).

<sup>42</sup> Fitch Ratings, *Definitions of Ratings and Other Forms of Opinion* (2011), available at [http://www.fitchratings.com/web\\_content/ratings/fitch\\_ratings\\_definitions\\_and\\_scales.pdf](http://www.fitchratings.com/web_content/ratings/fitch_ratings_definitions_and_scales.pdf)

Company	Parent Recovery			Agency	Date of	Date of	Loan Size	or
	Rating	Rating	Estimate		Rating	Loan	(Millions)	FFB
Solyndra, Inc	BB-		89%	Fitch	8/7/2009	Sept 2009	535	FFB
Beacon Power Corporation	CCC+			S&P	4/30/2010	Aug 2010	45	FFB
Kahaku Wind Power LLC	BB-		85-90%	Fitch	5/26/2010	July 2010	117	FFB
Nevada Geothermal Power Company Inc.	BB+		75-80%	Fitch	7/20/2010	Sept 2010	78.8	FIPP
Abound Solar	B		45%	Fitch	11/4/2010	Dec 2010	400	FFB
Cathness Shepherds Flat, LLC	BBB-		90-95%	Fitch	11/12/2010	Oct 2010	1040	FIPP
Abengoa Solar, Inc (Solana)	BB+	BB	90%	Fitch	12/2/2010	Dec 2010	1446	FFB
U.S. Geothermal, Inc (Malheur County, Oregon)	BB		64%	S&P	12/29/2010	Feb 2011	97	FFB
Recond Hill Wind, LLC	BB+	AAA		S&P	1/7/2011	Aug 2011	102	FFB
LS Power (Transmission Line project)	BB+		90-95%	Fitch	1/21/2011	Feb 2011	345	FFB
BrightSource Energy, Inc - Ivanpah I	BB+		55%	Fitch	1/25/2011	Apr 2011	1600	FFB
BrightSource Energy, Inc - Ivanpah II	BB		55%	Fitch	1/25/2011	Apr 2011		FFB
BrightSource Energy, Inc - Ivanpah III	BB-		55%	Fitch	1/25/2011	Apr 2011		FFB
NRG Solar, LLC (Agua Caliente)	BB+	B+	90-95%	Fitch	5/13/2011	Aug 2011	967	FFB
SoloPower Inc	CCC+			S&P	7/11/2011	Aug 2011	197	FFB
NextEra Energy Resources, LLC (Genesis Solar)	BBB+	BBB+	84-90%	S&P	7/21/2011	Aug 2010	681.6	FIPP
Cogentrix of Alamosa, LLC	B		44-55%	Fitch	7/22/2011	Sept 2011	90.6	FFB
U366 Technologies Inc	B		65-70%	Fitch	7/25/2011	Sept 2011	150	FFB
Abengoa Solar, Inc (Mojave Solar)	BB	BB	70-75%	Fitch	7/27/2011	Sept 2011	1200	FFB
Granite Reliable Power, LLC	BB	BBB-	75-80%	Fitch	8/10/2011	Sept 2011	135.12	FIPP
Ormat Nevada, Inc	BB			S&P	8/13/2011	Sept 2011	280	FIPP
Exelon (Antelope Valley Solar Ranch)	BBB-	A-	90-95%	Fitch	8/17/2011	Sept 2011	646	FFB
SolarReserve Inc, LLC (Crescent Dunes)	BB		80-85%	Fitch	8/19/2011	Sept 2011	737	FFB
Prologis (Project Amp)	BB	B+	80-90%	Fitch	8/21/2011	Sept 2011	1120	FIPP
Mesquite Solar I, LLC (Sempra Mesquite)	BB+	BBB+	80-85%	Fitch	8/23/2011	Sept 2011	337	FFB
NRG Energy (California Valley Solar Ranch)	BB+	B+	85-90%	Fitch	8/23/2011	Sept 2011	1257	FFB
NextEra Energy Resources, LLC (Desert Sunlight)	BBB-	A-	85-90%	Fitch	8/24/2011	Sept 2011	1199.2	FIPP
Abengoa Bioenergy Biomass of Kansas LLC	CCC	BB	65-70%	Fitch	8/26/2011	Aug 2010	132.4	FFB

Within the range of non-investment grade credit risk, six of the Junk loans were rated at the lower tiers of the range. Specifically, these six projects or loans received ratings within either the "B" or "CCC" categories under the Fitch or Standard and Poor's classifications.

Despite lending to highly speculative and troubled projects, the government only charged those green energy firms its own cost to borrow money. In other words, the government sought no profit or compensation for credit risk. Given the extent of losses already apparent, the failure to seek any compensation for credit risk inevitably means the taxpayer will lose substantial

...to get a premium or require more upfront capital as a condition for agreeing to finance future projects; thus, if the project were to go completely under, the banks would have some capital to show for the losses.

### A. DOE's High Risk Loan Portfolio

At an October 2011 press conference, after the collapse of Solyndra, President Obama commented on the 1705 loan portfolio saying that “we knew from the start that the loan guarantee program was going to entail some risk, by definition. If it was a risk-free proposition, then we wouldn’t have to worry about it. But the overall portfolio has been successful.”<sup>43</sup> However, the risk conceded by President Obama is larger than he or Secretary Chu have publically acknowledged. Left unsaid is the continuing and mounting risks taxpayers face with each additional disbursement of funds.

As this report reveals, it appears that taxpayer losses associated with Solyndra are just the tip of the iceberg. Clues warning of this risk have been apparent from the inception of the program. This does not bode well for the future of DOE’s loan portfolio. Moreover, most of the energy projects funded under 1705 continue construction or just plan to begin construction. As projects proceed and spend their capital, additional weaknesses will be exposed and more loan recipients will begin to fail.

Secretary Chu has done very little to mitigate these risks. In the first instance, DOE failed to abide by the number one investment rule of thumb – diversify your portfolio. Instead of making investments in a broad range of emerging technologies, DOE sunk 80% of its funds into either solar manufacturing or solar generation projects.<sup>44</sup> This overemphasis on one type of technology leaves taxpayers vulnerable to changes in the market for solar energy. After Solyndra collapsed, Energy Secretary Steven Chu claimed that “this company and several others got caught in a very, very bad tsunami” and then blamed China and the recession in Europe.<sup>45</sup> Secretary Chu neglected to mention the extraordinarily clear warning by Fitch Ratings (Fitch) *prior* to DOE’s commitment. Specifically, Fitch stated:

[C]hanges in business or economic conditions center upon the intermediate and longer term pricing of PV solar panels which are now under extreme competitive pressures. Fitch expects PV pricing pressures throughout the term of the DOE loan and this factor will be the largest challenge facing Solyndra and the largest credit risk incurred in repayment of the Fab 2 loan according to its terms.<sup>46</sup>

As the above excerpt reveals, prior to approving Solyndra, Fitch warned DOE that extreme competition within the solar panel market threatened pricing of solar panels in the coming months and years and that this was the greatest risk to Solyndra’s survival. Even

<sup>43</sup> News Conference by the President, The White House (October 6, 2011), *available at* <http://www.whitehouse.gov/the-press-office/2011/10/06/news-conference-president>.

<sup>44</sup> U.S. Dep’t of Energy, Loan Program office, Our Projects, *available at* [https://lpo.energy.gov/?page\\_id=45](https://lpo.energy.gov/?page_id=45)

<sup>45</sup> Matthew Wald, *Panel Hears Defense of Loan to Solyndra*, N.Y. TIMES, Nov. 17, 2011, *available at*:

<http://www.nytimes.com/2011/11/18/business/energy-environment/energy-secretary-defends-solyndra-loan.html>.

<sup>46</sup> Solyndra rating report letter to Wilbur Stover, FitchRatings, p.1 (August 7, 2009).

the 27 section 1705-backed projects employed solar technology, the very technology that experts were warning about. These loans for solar projects totaled more than \$13 billion – more than 80% of the total portfolio. DOE also concentrated its investments in two solar companies in particular, Abengoa and First Solar, to such an extent that financial troubles with either company would affect a significant portion of the loan portfolio. In addition to over investing in solar, the Federal government also permitted “double dipping,” wherein a company received multiple federal grants and loans to cover the cost of a project, thereby reducing the company’s “skin in the game.” DOE also allowed large and financially sound parent entities to undercapitalize their loan guarantee projects, which effectively shifted the risk away from the company to the taxpayer. It appears that for most DOE loan recipients, a low cost loan, in and of itself was insufficient to attract private investors.

In compiling this report, staff considered many troubling issues that deserve attention, yet, because of the magnitude of problems associated with this program, only a share of the concerns could be investigated. Committee staff, therefore, considers this an initial report. The following sections examine the various actions that DOE took while building its financially vulnerable portfolio that jeopardizes billions in taxpayer funds.

## **B. Major Risk Factors to the Loan Portfolio**

### *1. Falling Natural Gas Prices Hurt Renewable Projects*

In addition to the poor credit risk determinations of 1705 recipients, the falling price of natural gas poses a material risk to the sustainability of these renewable energy projects. This section of the report attempts to explain how the market for natural gas has evolved and how it interacts with the market for renewable technologies.

Advances in hydraulic fracturing (“fracking”) technology over recent years dramatically improved domestic natural gas and natural gas liquids production. Over the past few months, in particular, this increase in production resulted in an extraordinary decline in the domestic price of natural gas, substantially widening the efficiency gap between fossil fuels and renewable technologies.<sup>48</sup> In other words, natural gas has become so cheap that other energy technologies are having difficulty competing, even after federal subsidies.

The high price of oil incentivizes fracking for natural gas liquids, which supply valuable raw materials to oil refiners.<sup>49</sup> In areas where fracking produces both natural gas and gas liquids, frackers often produce natural gas at a loss, but, in the aggregate, profit due to the high price of gas liquids.<sup>50</sup> This unique result reduces the responsiveness of natural gas producers to the price

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<sup>47</sup> U.S. Dep’t of Energy, Loan Program office, Our Projects, *available at* [https://lpo.energy.gov/?page\\_id=45](https://lpo.energy.gov/?page_id=45)

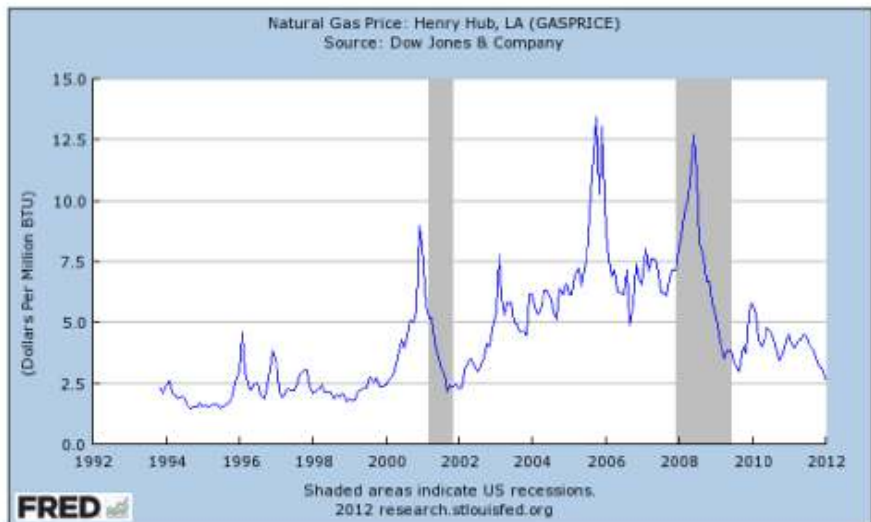
<sup>48</sup> See U.S. Energy Info. Admin., Monthly Natural Gas Gross Withdrawals, *available at* <http://205.254.135.7/dnav/ng/hist/n9010us2m.htm>.

<sup>49</sup> See Natural Gas Supply Ass’n, Processing Natural Gas, *available at* [http://www.naturalgas.org/naturalgas/processing\\_ng.asp#seperateng](http://www.naturalgas.org/naturalgas/processing_ng.asp#seperateng); see also Emanuel V. Ormonde, IHS Inc., Natural Gas Liquids, *available at* <http://chemical.ihs.com/CEH/Public/Reports/229.2500/>

<sup>50</sup> See Peter Gardett, AOL Energy, A Little Liquid Gas and Oil Goes a Long Way for Energy Producers (Feb. 17, 2012), *available at* <http://energy.aol.com/2012/02/17/a-little-liquid-gas-and-oil-goes-a-long-way-for-energy-producers/>

of natural gas. This ability to continue to profit from the premium price of gas liquids changes the economics of natural gas production enabling a secular decline in natural gas prices.

The resulting low natural gas price reduces the market price for power generation in most areas, as natural gas fired generators usually set the market clearing price. Below is a chart reflecting natural gas prices since 1992.<sup>51</sup> Today's low prices for natural gas have not been seen since the 1990's and, when adjusted for inflation are at historically low levels. While this is good news for consumers of electricity who will benefit from lower rates, this is bad news for the renewable energy industry.



*a. Low Natural Gas Prices Reduce Power Purchase Agreement Revenues for Renewable Projects*

As natural gas powered generation provides the market clearing price in most regions within the United States, the recent drop in natural gas prices lowered market prices for power. These falling power prices reduce the expected value of anticipated Power Purchase Agreements (PPAs), which are agreements that provide power purchasers, such as utilities and suppliers of energy, such as renewable energy generators, with certainty over future prices. The energy industry relies on PPAs to manage risks associated with the purchase and sale of power. The pricing of PPAs largely depends on expectations with regard to future power prices. The recent

<sup>51</sup> Federal Reserve Bank of St. Louis, Economic Data, Natural Gas Price: Henry Hub, Louisiana, available at <http://research.stlouisfed.org/fred2/series/GASPRICE>

Lower natural gas prices increase the risks of renewable energy projects that have not yet entered into long term contracts to sell the power they expect to generate because buyers of their product now have cheaper options. Project Amp and other projects that fail to meet benchmarks necessary to maintain a PPA, suffer the risk that they cannot negotiate agreements sufficient to support the cost of the renewables project, even with the benefit of multiple substantial subsidies.

Accordingly, it is reasonable to expect utilities to seek an exit from expensive PPAs whenever the renewable company fails to meet certain benchmarks, whether those benchmarks relate to commercial operation date, insufficient output, reliability or other variables. In other words, given the falling price of power in areas where natural gas is the marginal supplier, it is reasonable to expect revenues from risky renewables projects to be at risk to these falling power prices. If a PPA with a solar producer reflects a price based on markets where \$4.00 per million British thermal unit (MMBtu) of natural gas was prevalent, the utility paying for that solar power might act on any opportunity to renegotiate or exit the unprofitable PPAs now that natural gas prices are below \$3.00. Specifically, as DOE-backed projects come online over the next few years, any failure to meet the production or capacity requirements stated in the PPA may enable the power purchaser to exit or renegotiate the contract, subjecting the renewable project to lower power prices, and thus lower revenues for the company than was predicted at the time DOE negotiated the loan agreement.

In other words, given that power prices have fallen since these projects executed PPAs, there is substantial risk that the power purchasers will find a way out from the PPAs they entered into with the renewable projects. A PPA provides the renewable project security that it will earn a specific amount of revenue. If a party, such as a Utility, that is purchasing power from the renewables project can find a way out of the PPA, this places the revenue of the project at risk. If the renewable projects are forced to renegotiate at current market prices, they will suffer a substantial loss of revenue.

This is particularly concerning in the case of newer technologies, where many of these projects may fail to achieve target operation dates, or may not generate as much power as the contract requires simply as a matter of not having enough experience with the newer technology. Given this risk, many of these projects face the danger of losing the benefit of a higher priced PPA.

One good example comes from the recent reports that First Solar's solar panels are suffering higher failure rates in the desert. This unexpected underperformance will reduce the output of their plants. Such output is a key performance variable considered in the PPA.

#### *b. Low Gas Prices Reduce Demand for Solar Panels*

Falling market prices for power as described above impacts all aspects of renewable projects. Despite solar panel prices, the *demand* for solar panels declines as the relative economic benefits of their installation fall. Solar companies currently suffer from excessive competition in panel manufacturing, and also likely face decreasing demand as a result of the competition from cheaper natural gas generation. To the extent low natural gas prices persist,



## 2. DOE's Failure to Diversify

### a. DOE Overinvests in Solar Manufacturing despite Ample Warnings

DOE should have averted some of the risks it created in its portfolio by diversifying its investments across renewable energy technologies. DOE's investment in multiple solar manufacturers added to a heated global competition that was already creating an excessive supply of solar panels. These manufacturers were forced to compete both against each other and other solar companies worldwide. As a result, the average selling price per watt for solar panels has continued its decline.

Despite Solyndra's fall, there remains excessive competition in the manufacturing of solar panels. Just this past month, both Abound Solar and First Solar cut solar panel production globally, reflecting this excessive supply and heated competition.<sup>52</sup> While U.S. solar generation projects can take advantage of falling panel prices to offset a share of the impact of reduced power prices, it appears solar *manufacturers* that suffer both supply and demand shocks can only survive through continued provision of subsidies. Unfortunately for these manufacturers, there is growing evidence that the subsidies are drying up.

With regard to subsidies on a global scale, Germany, the leader in solar subsidies, having invested over \$130 billion to date, is now giving up the habit. According to news reports:

Germany once prided itself on being the "photovoltaic world champion", doling out generous subsidies—totaling more than \$130 billion, according to research from Germany's Ruhr University—to citizens to invest in solar energy. But now the German government is vowing to cut the subsidies sooner than planned and to phase out support over the next five years. What went wrong?

Using the government's generous subsidies, Germans installed 7.5 gigawatts of photovoltaic capacity last year, more than double what the government had deemed "acceptable." It is estimated that this increase alone will lead to a \$260 hike in the average consumer's annual power bill.

According to Der Spiegel, even members of Chancellor Angela Merkel's staff are now describing the policy as a massive money pit. Philipp Rösler,

<sup>52</sup> Cassandra Sweet and Ryan Tracy, *Loan Recipient Abound to Cut Jobs, Retool Colorado Factory*, WALL ST. J., Feb. 29, 2012, available at <http://online.wsj.com/article/BT-CO-20120229-719672.html>; Ehren Goossens, *Solar Suppliers Head for First Demand Drop as Subsidy Cut*, BLOOMBERG NEWS, Mar. 9, 2012, available at <http://www.bloomberg.com/news/2012-03-09/solar-panel-sales-seen-dropping-first-time-in-decade-feeding-glut-energy.html>

The ratings agencies fully informed the DOE of their expectations for falling panel prices due to excessive global competition. Both Germany and the U.S. appear to be phasing out subsidies over the coming years, and this should eventually help reduce the excessive supply; however, it does so at the expense of the subsidized solar firms. In other words, the apparent cure to the oversupply is the outright shuttering of a large share of solar panel manufacturers worldwide.

*b. DOE Overinvested in Abengoa and First Solar Projects*

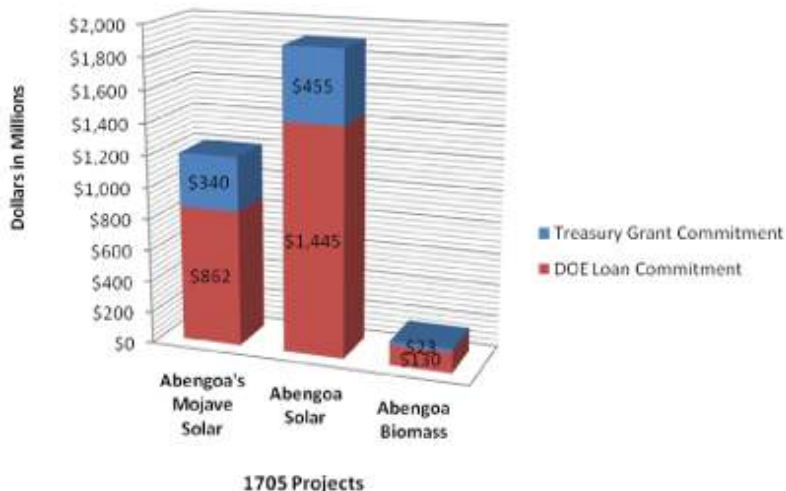
As DOE failed to diversify the portfolio sufficiently across industries, DOE also failed to diversify across award recipients. A single Spanish firm, Abengoa, received an aggregate \$2.45 billion in loans and loan guarantees plus \$818 million in Treasury cash grants.<sup>54</sup> This reveals excessive risk and subsidies provided to a single firm via multiple subsidiaries. Abengoa has a credit rating of BB, which is considered Junk, thus making this concentration of investment in one company speculative and highly questionable. Exemplifying the risk DOE took in the case of Abengoa, Abengoa managed to obtain a DOE loan commitment for the lowest rated project across the entire DOE Junk portfolio; Abengoa Bioenergy Biomass of Kansas received an extraordinarily low CCC rating and yet the DOE approved a direct loan to the project.<sup>55</sup>

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<sup>53</sup> Bjorn Lomborg, *Germany is cutting solar-power subsidies because they are expensive and inefficient*, SLATE, Feb. 18, 2012, available at [http://www.slate.com/articles/news\\_and\\_politics/project\\_syndicate/2012/02/why\\_germany\\_is\\_phasing\\_out\\_its\\_solar\\_power\\_subsidies.html](http://www.slate.com/articles/news_and_politics/project_syndicate/2012/02/why_germany_is_phasing_out_its_solar_power_subsidies.html)

<sup>54</sup> See FitchRatings credit report for Mojave Solar, LLC, dated July 27, 2011, where DOE committed to an \$862 million loan and Treasury committed to a \$340 million grant; FitchRatings credit report for Abengoa Solar, Inc.'s Solana Generating Station, dated December 2, 2010, where DOE committed to a \$1.445 billion loan guarantee and the Treasury committed to a \$455 million grant; and, FitchRatings credit report for Abengoa Bioenergy Biomass of Kansas, dated August 26, 2011, where DOE committed to a \$130 million loan and Treasury committed to a \$23 million grant.

<sup>55</sup> See FitchRatings credit report for Abengoa Bioenergy Biomass of Kansas, dated August 26, 2011.



Abengoa's prospects look dim due to its investments in Europe, particularly Spain, and suffer the risk of declining subsidies as Spain contends with its own declining credit quality and the potential need for a bailout of its own government in the coming months or years. Now that Germany and Spain cut back solar subsidies, this will undoubtedly harm the European renewable investments of Abengoa.<sup>56</sup> Even if Abengoa investments initially appeared attractive to DOE, overinvestment in this single firm will likely cause substantial harm to the taxpayer. DOE similarly overinvested in First Solar, as we describe in Section III; the taxpayer will undoubtedly suffer losses from that investment as well.

### 3. DOE Allowed "Double Dipping" – Multiple Subsidies to Single Projects

The junk quality loan portfolio of loan guarantees amassed by DOE reflects funding that substantially exceeds the amounts loaned by DOE. To understand the full extent of funds invested into these renewable firms, all state and federal subsidies need to be considered. For example, most of the 1705 projects benefitted from multiple enormous subsidies, such as grants that covered a third of the cost to build a generation facility, low interest DOE loans, state subsidies, beneficial access to power grids and mandates that require renewable production

<sup>56</sup> See Ben Sills, *Spain Halts Renewable Subsidies to Curb \$31 Billion of Debts*, BLOOMBERG NEWS, Jun. 27, 2012, available at <http://www.bloomberg.com/news/2012-01-27/spain-suspends-subsidies-for-new-renewable-energy-plants.html>. See also Germany to Axe Solar Panel Installations by More than Half in 2012 (Jan. 19, 2012), available at <http://www.greenworldinvestor.com/2012/01/19/germany-to-axe-solar-panel-installations-by-more-than-half-in-2012/>.

Even with the benefit of these massive government subsidies, DOE continues to hold a portfolio of “Junk” grade loans and commitments. This defies the natural assumption that layer upon layer of government subsidies, and billions in costless equity should at some point cause an entity to become profitable; however, given the poor quality of the DOE portfolio, this has failed to occur.

#### *4. DOE Allowed Large Energy Companies to Undercapitalize Projects and Shifted Risk to Taxpayers*

Even when a company had significant assets to cover a project, DOE put the taxpayer at a greater risk because of the way they structured the guarantee. In four cases among the 27 loan guarantees and Federal Financing Bank (FFB) loans, the parent or project sponsor that sought the benefit of a loan guarantee or FFB loan had a credit rating significantly above that of the project itself. In other words, in four cases, the borrower undercapitalized the project and refused to extend a parental guarantee.

As a result, the taxpayer takes on greater risk, despite the borrowers’ ability to increase funding to the project. The most egregious use of this technique was in the case of Record Hill, LLC, where AAA rated Yale University created a project with a rating of only BB+. The idea that Yale would take a substantial taxpayer subsidy and still seek to protect its remaining assets from the liabilities of Record Hill reflects Yale’s view of the Record Hill project and its disregard for taxpayers. It is inconceivable that any normal bank would take these kinds of risk when loaning money. Banks traditionally insist on a number of provisions to “protect” their investment. Yet DOE and Treasury did just the opposite, and essentially let these companies dictate terms favorable to them and not to the taxpayer. The result is when the company defaults on their obligations, the taxpayer is left with little to no remedy.

### **3. Systemic Risks from “Crony Capitalism” and Wasteful Spending**

There is evidence a number of loan guarantee recipients have engaged in clearly profligate spending. Such wasteful spending threatens the financial viability of the recipient companies, creating risks to both the DOE’s loan commitment portfolio and taxpayer dollars. It is particularly troubling that this waste often takes the form of large cash bonuses to company executives – such payments feed the perception that taxpayer funds are being used to line the pockets of green energy executives.

Beacon Power Corp, the second recipient of a § 1705 loan guarantee, paid three executives more than a quarter million dollars in bonuses in March 2010.<sup>58</sup> Eighteen months

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<sup>57</sup> See M.J. Beck Consulting LLC, *Renewable Portfolio Standards*, available at [http://mjbeck.emtoolbox.com/?page=Renewable\\_Portfolio\\_Standards](http://mjbeck.emtoolbox.com/?page=Renewable_Portfolio_Standards) (“With few exceptions, utilities are allowed to recover the additional cost of procuring renewable power.”); see also Katerina Dobesova, Jay Apt, and Lester B. Lave, *Are Renewable Portfolio Standards Cost-effective Emission Abatement Policy?* (Carnegie Mellon Electricity Industry Center, Working Paper CEIC-04-06), available at [http://wpweb2.tepper.cmu.edu/eic/pdfs/CEIC\\_04\\_06.pdf](http://wpweb2.tepper.cmu.edu/eic/pdfs/CEIC_04_06.pdf).

Similarly, these bonuses were explicitly linked to the executives securing the DOE loan guarantee. Similarly, bankruptcy records show Solyndra doled out executive payments just months prior to its late August collapse and early September bankruptcy.<sup>59</sup> In Solyndra's case, former executives have stated that DOE explicitly allowed federal funds to be used to pay out executive bonuses.

The Department appears to recognize the unacceptability of this crony capitalism. DOE has stated, "We take our role as stewards of taxpayer dollars very seriously, and as such, we will make clear to loan recipients our view that funds should not be directed toward executive bonuses when the rest of the company is facing financial difficulty."<sup>60</sup> The DOE has not explained why they waited three years into the program to finally take this view, or what – if any – concrete steps they will take to protect taxpayer monies.

Good government groups have severely criticized the DOE's administration of the loan guarantees with respect to executive compensation. Citizens Against Government Waste has stated that "[g]iving a bonus to the executives under these circumstances is rewarding failure with our money with no chance of getting it back. Taxpayers need some representation here. They didn't really get it."<sup>61</sup>

Wasteful spending is not limited to executive compensation alone. BrightSource Energy, recipient of a \$1.6 billion loan guarantee to build a solar generation facility, has spent more than \$56 million on a desert tortoise relocation program.<sup>62</sup> Furthermore, BrightSource will build 50 miles of intricate fencing, at a cost of up to \$50,000 per mile, designed to prevent relocated tortoises from climbing or burrowing back into the solar generation facility.<sup>63</sup> BrightSource has indicated that the exploding cost of tortoise relocation program threatens to derail the entire \$1.6 billion project – leaving taxpayers on the hook for the enormous sums on money spent on construction thus far.

The DOE's failure to diligently oversee costs and set prudent limitations on executive compensation while it distributed billions of dollars in loan commitments created a significant moral hazard that has created enormous risks for DOE and taxpayer funds.

### **C. Harm Posed to Our Economy**

The DOE loan guarantee and ATVM loan programs may harm capital formation within the capital markets. As the government makes low cost loans available, private capital cannot compete with the subsidized low interest loans. As a result, many private investors and lenders cease to compete in the same space or may choose to invest in those subsidized firms that anticipate government loans. As intended, government subsidies redirect capital to less efficient

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<sup>58</sup> Ronnie Greene and Matthew Mosk, *Green Firms Get Fed Cash, Gives Execs Bonuses, Fail*, ABC NEWS, Mar. 6, 2012, available at <http://abcnews.go.com/Blotter/green-firms-fed-cash-give-exec-bonuses-fail/story?id=15851653#.T1ZAcnm8hSx>

<sup>59</sup> *Id.*

<sup>60</sup> *Id.*

<sup>61</sup> *Id.*

<sup>62</sup> Julie Cart, *Saving desert tortoises is a costly hurdle for solar projects*, L.A. TIMES, Mar. 4, 2012.

<sup>63</sup> *Id.*

These firms that would not be sought a more profitable opportunities that would have yielded greater efficiencies and benefits for the economy, instead invest in relatively less profitable industries, where the government subsidy compensates for the lost profit.

To the extent government loans programs proceed, the government must maintain the highest integrity in the allocative process. If government fails to impose a fair and impartial loan process that prioritizes genuinely eligible borrowers, then the government further misallocates capital within the subsidized industry, increasing economic harm. Relatively better businesses may suffer losses while waiting for subsidies that never materialize. Lower quality firms, with strong political ties, may succeed in gaining government support with inferior products, reflecting a multi-factored misallocation of capital.

The failure to maintain integrity and abide by the law when implementing the DOE loan program significantly impacts those that failed to receive subsidies as well. On February 28, 2012, Bright Automotive announced it was shutting down operations. In a poignant and blunt letter to the Secretary, Bright Automotive's management team laid the blame squarely on the unprofessionalism and mismanagement of the DOE loan guarantee program. Bright Automotive described a process wrought with misdirection, changing and expanding requirements, unexplained delays, gross mischaracterizations, and a never-ending cycle of excuses:

*Bright Automotive*

*February 28, 2012*

*Secretary Steven Chu  
U.S. Department of Energy  
Washington, D.C.*

*Dear Secretary Chu,*

*Today Bright Automotive, Inc will withdraw its application for a loan under the ATVM program administered by your department. Bright has not been explicitly rejected by the DOE; rather, we have been forced to say "uncle". As a result, we are winding down our operations.*

*Last week we received the fourth "near final" Conditional Commitment Letter since September 2010. Each new letter arrived with more onerous terms than the last. The first three were workable for us, but the last was so outlandish that most rational and objective persons would likely conclude that your team was negotiating in bad faith. We hope that as their Secretary, this was not at your urging.*

*The actions – or better said "lack of action" – by your team means hundreds of great manufacturing and technical jobs, union and non-union alike, and thousands of indirect jobs in Indiana and Michigan will not see the light of day. It*

*turning your back on a bona fide step forward in our national goal to wean America away from our addiction to foreign oil and its implications on national security and our economic strength.*

*In good faith we entered the ATVM process, approved under President Bush with bi-partisan Congressional approval, in December of 2008. At that time, our application was deemed "substantially complete." As of today, we have been in the "due diligence" process for more than 1175 days. That is a record for which no one can be proud.*

*We were told by the DOE in August of 2010 that Bright would get the ATVM loan "within weeks, not months" after we formed a strategic partnership with General Motors as the DOE had urged us to do. We lined up and agreed to private capital commitments exceeding \$200M – a far greater percentage than previous DOE loan applicants. Finally, we signed definitive agreements with state-of-the-art manufacturer AM General that would have employed more than 400 union workers in Indiana in a facility that recently laid-off 350 workers. Each time your team asked for another new requirement, we delivered with speed and excellence.*

*Then, we waited and waited; staying in this process for as long as we could after repeated, yet unmet promises by government bureaucrats. We continued to play by the rules, even as you and your team were changing those rules constantly – seemingly on a whim.*

*Because of ATVM's distortion of U.S. private equity markets, the only opportunities for 100 percent private equity markets are abroad. We made it clear we were an American company, with American workers developing advanced, deliverable and clean American technology. We unfortunately did not aggressively pursue an alternative funding path in China as early as we would have liked based on our understanding of where we were in the DOE process. I guess we have only ourselves to blame for having faith in the words and promises of our government officials.*

*The Chairman of a Fortune 10 company told your former deputy, Jonathan Silver, that this program "lacked integrity"; that is, it did not have a consistent process and rules against which private enterprises could rationally evaluate their chances and intelligently allocate time and resources against that process. There can be no greater failing of government than to not have integrity when dealing with its taxpaying citizens.*

*It does not give us any solace that we are not alone in the debacle of the ATVM process. ATVM has executed under \$50 million of transactions since October of 2009. Going back to the creation of the program, only about \$8 billion of the*

*entrepreneurial teams and some of the largest players in the industry to advance your articulated goal of advancing the technical strength and clean energy breakthroughs of the American automotive industry. These collective efforts have been in vain as the program failed to finance both large existing companies and younger emerging ones alike.*

*Our vehicle would have been critical to meet President Obama's stated goal of one million plug-in electric vehicles on the road in 2015 and his commitment to buy 100 percent alternative fueled vehicles for the Federal Fleet. So, we are not the only ones who will be disappointed.*

*The ineffectiveness of the DOE to execute its program harms commercial enterprise as it not only interfered with the capital markets; it placed American companies at the whim of approval by a group of bureaucrats. Today at your own ARPA-E conference, Fred Smith, the remarkable leader of FedEx, made the compelling case to reduce our dependence on oil; a product whose price is manipulated by a cartel which has caused the greatest wealth transfer in our history from the pockets of working people and businesses to countries, many of whom are not our allies. And yet, having in hand a tremendous tool for progress in this critically strategic battle -- a tool that drew the country's best to your door -- you failed not only in the deployment of funds from ATVM but in dissipating these efforts against not just false hope, but false words. For us, this is a particularly sad day for our employees and their families, as well as the employees and families of our partners. We asked our team members on countless occasions to work literally around the clock whenever yet another new DOE requirement came down the pike, so that we could respond swiftly and accurately. And, we always did.*

*Sincerely,*

*Reuben Munger  
CEO*

*Mike Donoughe  
COO<sup>64</sup>*

Bright Automotive is not alone in its frustration, as at least three additional companies, U.S. Geothermal, Inc., RenTech, and Tenaska, have suffered substantial harm at the hand of DOE's favoritism and blatant disregard of the law.

*U.S. Geothermal, Inc.*

U.S. Geothermal, Inc. submitted a DOE loan guarantee application for a geothermal power project in San Emidio, California. Like Bright Auto, U.S. Geothermal received several "clear assurances the DOE considers San Emidio a priority project and that [the] credit review

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<sup>64</sup> Letter, Reuben Munger and Mike Donoughe, Bright Automotive, to the Honorable Steven Chu, Sec'y of Energy, Feb. 28, 2012 (on file with author).



and assurances, U.S. Geothermal took action to advance the project and ensure full readiness and compliance with DOE's stated requirements. The company incurred numerous expenses, including fees to legal counsel and engineers, as well as resources devoted to the completion of engineer reports and a term sheet.<sup>66</sup> Most significantly, consistent with a DOE requirement for priority treatment within the 1705 program, U.S. Geothermal executed a 25 year PPA.<sup>67</sup>

U.S. Geothermal has taken every step to ensure that the San Emidio project embodies the "quality" and "readiness" requirements DOE has emphasized. The project, which "would be one of the smaller and more straight-forward transactions," was ready to enter the credit approval process by May 2011, only to be abruptly notified that DOE decided to suspend work on this loan guarantee.<sup>68</sup>

DOE, in a draft letter to U.S. Geothermal, stated "there are a number of projects that are closer to the conditional commitment stage than yours, and we expect these projects, if they reach financial close, to utilize all of our remaining appropriation."<sup>69</sup> In this draft letter, Jonathan Silver further provided that "the decision does not reflect the merits of the project, but rather the timing and funding constraints of the program."<sup>70</sup> This claim is dubious at best. As is revealed in Section III of this report, Project AMP failed to meet the eligibility requirement relating to commencement of construction; nonetheless, it received a \$1.4 billion FIPP-based DOE loan guarantee commitment on September 30, 2011. Antelope Valley Solar Ranch failed to meet the "innovativeness" requirement and the "one technology per sponsor rule." Despite this, Antelope Valley succeeded in gaining a \$646 million FFB direct loan commitment. These two projects consumed an enormous share of DOE's appropriation yet clearly were not "closer to the conditional commitment stage."

According to its letter, U.S. Geothermal suffered substantial harm as a result of DOE's decision to violate the terms of its own program in providing loan commitments to ineligible projects. The company incurred significant expenses in its efforts to meet DOE's standards and secure the financing it needed to proceed. The greatest harm will result from the PPA U.S. Geothermal entered into in reliance on DOE statements, which now contractually obligates them to provide power for 25 years or suffer penalties.<sup>71</sup> According to U.S. Geothermal's letter, in the absence of a DOE loan guarantee, the terms of the PPA create a significant obstacle to obtaining commercial financing for their project going forward.<sup>72</sup>

## *Rentech*

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<sup>65</sup> Letter, Daniel Kunz, U.S. Geothermal President & CEO, to Jonathan Silver, U.S. Dep't of Energy Loan Program Office, Executive Director (May 11, 2011).

<sup>66</sup> *Id.*

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

<sup>69</sup> Draft letter, Jonathan Silver, U.S. Dep't of Energy Loan Program Office, Executive Director, to Daniel Kunz, President of U.S. Geothermal (no bates stamp and no date).

<sup>70</sup> *Id.*

<sup>71</sup> Letter, Daniel Kunz, U.S. Geothermal President & CEO, to Jonathan Silver, U.S. Dep't of Energy Loan Program Office, Executive Director (May 11, 2011).

<sup>72</sup> *Id.*

Center Project (NWFREC). Like Bright Automotive and U.S. Geothermal, Rentech had progressed according to plan and adhered to DOE's prescribed schedule. In coordination with DOE staff, Rentech had taken such steps as signing sponsor payment letters, setting up necessary infrastructure, and entering the due diligence process.<sup>73</sup>

Despite making every effort to fulfill all the requirements DOE laid out, DOE, again, unexpectedly suspended the approval process for the NWFREC Project.<sup>74</sup> Given the steps Rentech took to ensure all requirements were being fulfilled, DOE seems to have made a decision based on favoritism rather than the law, choosing to fund larger, ineligible projects over a number of more suitable alternatives.

### *Tenaska*

Tenaska sought financing for Imperial Solar Energy Center South (IESC South), a solar power project in Imperial County, California. Like the others, this company also received a letter from DOE suspending the loan approval process, indicating that other projects were closer to the conditional offer stage.<sup>75</sup> Given the steps Tenaska appears to have taken prior to the suspension, this is unlikely.

Prior to receipt of DOE's letter, Tenaska had been working in coordination with DOE staff and was finalizing the execution of the required term sheet.<sup>76</sup> Additionally, the company was progressing through the due diligence stage and expected its preliminary Credit Assessment from Fitch in the very near future.<sup>77</sup> It appears that, once again, DOE suspended the approval of a credible project adhering to all stated standards and working closely with DOE staff, only to later approve massive funding for a project proven to be nowhere nearly as far along in the process as DOE purported. DOE's favoritism significantly harmed yet another company that had relied on the promise of 1705 financing.

The similarity of concerns and claims made by Bright Automotive, U.S. Geothermal, Rentech and Tenaska make clear that DOE actively mislead applicants about the status of their loan applications, thereby encouraging these firms to misallocate capital, which has led to financial harm. When considered in the context of the excessively large loan guarantees provided to Abengoa, First Solar and ProLogis, and the outright violations associated with Antelope Valley and Project AMP, the claims of these companies bring to light the extent of harm that can result when a regulator fails to maintain integrity and allows inappropriate bias and influence to distort its decisions.

To the extent that political connections and lobbying efforts influenced the DOE loan program, this increases the potential harm to our capital markets and our economy. The large

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<sup>73</sup> Letter, D. Hunt Ramsbottom, Rentech, President & CEO to Jonathan Silver, U.S. Dep't of Energy Loan Program Office, Executive Director (May 9, 2011).

<sup>74</sup> *Id.*

<sup>75</sup> Letter, David W. Kirkwood, Tenaska, Vice President & Treasurer, to Jonathan Silver, U.S. Dep't of Energy Loan Program Office, Executive Director (May 17, 2011).

<sup>76</sup> *Id.*

<sup>77</sup> Letter, David W. Kirkwood, Tenaska, Vice President & Treasurer, to Jonathan Silver, U.S. Dep't of Energy Loan Program Office, Executive Director (May 17, 2011).

environment where an impartial loan determination did not occur, resulting in poor decisions. For example, First Solar gained a unique advantage relative to its peers by mastering its relationship with government as we describe in Section III. Just six months after DOE provided First Solar three loan commitments totaling \$2.4 billion, the Committee learned that DOE's prized achievement under the First Solar scheme, First Solar's Mesa solar panel manufacturing plant, will delay its startup and cut jobs while cutting back global production by 60%. We also learned Abound Solar, a solar panel manufacturer that received a \$400 million DOE loan commitment, has since failed.

Following Solyndra, such a rapid pace of failure for solar projects, including the industry leader First Solar, leads us to expect many more solar projects will follow. As a result of these failures, we should also expect supply disruptions to solar generation projects, breaches of supply contracts, job loss, and dislocation to harm other taxpayer-backed solar firms. Based on these projections, it appears the DOE loan program, in the aggregate, will place a drag on the entire economy as investors in these firms and taxpayers face losses and bankruptcies.

#### **D. The "Independent" Review of the Loan Guarantee Program**

In October 2011, the White House ordered that an independent review be conducted by outside consultants in response to emerging problems, uncovered by the Solyndra scandal, with DOE's Loan Guarantee Programs.<sup>78</sup> The review, led by an "independent consultant," former Obama Administration Assistant Secretary of the Treasury, Herbert Allison, found serious systemic problems related to DOE management and issuance of loan guarantees.<sup>79</sup> Among the findings, Allison reported that DOE's loan program office suffers from structural weaknesses. The report finds:

- A lack of clarity in the lines of authority within the loan program office;
- A lack of balance between those with governmental experience and those with "substantial private sector experience and skill in project management and finance;"
- A lack of clear guidance regarding DOE's standard of "reasonable prospect of repayment;"
- A lack of clarity with regard to DOE's goals and tradeoffs with respect to financial goals versus policy goals; and
- The fees charged to companies to administer the program are not adequate to last through the duration of the loan guarantees.

While the institutional and managerial recommendations from the independent review are appropriate and helpful, the report falls short because it fails to consider whether political pressure played a role in the decision-making process at DOE. Additionally, the review does not

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<sup>78</sup> THE WHITE HOUSE, REPORT OF THE INDEPENDENT CONSULTANT'S REVIEW WITH RESPECT TO THE DEPARTMENT OF ENERGY LOAN AND LOAN GUARANTEE PORTFOLIO (Jan. 31, 2012), available at [http://www.whitehouse.gov/sites/default/files/docs/report\\_on\\_doe\\_loan\\_and\\_guarantee\\_portfolio.pdf](http://www.whitehouse.gov/sites/default/files/docs/report_on_doe_loan_and_guarantee_portfolio.pdf)

<sup>79</sup> *Id.*

loans. Credit subsidy costs, however, do not fully capture the risks to which taxpayers are subjected. According to the non-partisan Congressional Research Service, the independent review "did not calculate expected losses that may be realized by the project portfolio, and the report states that eventual losses cannot be predicted [using the accounting methods adopted by the review]."<sup>80</sup> In other words, unforeseen risks exist within DOE's portfolio which may have future budgetary implications but are incalculable using governmental accounting methods.

Furthermore, it has been widely reported that the independent review found the cost to taxpayers of the loan programs to be lower than originally projected. This reading of the report neglects to explain how these calculations came about. The independent review evaluated 30 loans and loan guarantees, broken down into three categories created by the independent consultant: utility-linked loans and loan guarantees ("projects for the generation or transmission of alternative sources of energy"<sup>81</sup>); Non-utility-linked loans and loan guarantees (generally, projects that bear greater technological risk; Beacon Power and Solyndra would fall into this category); and Ford and Nissan loans (loans to these two companies were broken out because these "projects are more typical of traditional secured corporate loans").<sup>82</sup>

When looked at in the aggregate, the costs of the program have, in fact, decreased since the DOE's estimates at the time of origination.<sup>83</sup> However, this optimistic outlook is driven largely by the third category of loans and loan guarantees – those given to Ford and Nissan. The costs of the first two categories – utility-linked loans and non-utility-linked loans – increased by 14 percent and 71 percent, respectively, while the estimated cost of the Ford and Nissan loans *decreased* by 95 percent. The large drop in the cost of the loan to Ford and Nissan was largely driven by these two companies receiving credit ratings substantially greater than what DOE believed they merited at the time of DOE's loan origination.<sup>84</sup> Looking just at utility-linked and non-utility-linked loans and loan guarantees, the expected cost to taxpayers has markedly increased. The Allison report glosses over this pertinent fact.

Lastly, the review excludes costs associated with Beacon Power and Solyndra when it calculated taxpayer liabilities. This is a significant omission, as Beacon Power had drawn down 91 percent of its loan guarantee at a cost to taxpayers of \$39 million, while Solyndra had drawn

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<sup>80</sup> Phillip Brown, James Bickley, Bill Canis, "Consultant Review of DOE's Loan and Loan Guarantee Portfolio: Summary and Analysis of Key Findings and Recommendations," Congressional Research Service, Memorandum, March 8, 2012.

<sup>81</sup> THE WHITE HOUSE, REPORT OF THE INDEPENDENT CONSULTANT'S REVIEW WITH RESPECT TO THE DEPARTMENT OF ENERGY LOAN AND LOAN GUARANTEE PORTFOLIO (Jan. 31, 2012), *available at* [http://www.whitehouse.gov/sites/default/files/docs/report\\_on\\_doe\\_loan\\_and\\_guarantee\\_portfolio.pdf](http://www.whitehouse.gov/sites/default/files/docs/report_on_doe_loan_and_guarantee_portfolio.pdf)

<sup>82</sup> Phillip Brown, James Bickley, Bill Canis, "Consultant Review of DOE's Loan and Loan Guarantee Portfolio: Summary and Analysis of Key Findings and Recommendations," Congressional Research Service, Memorandum, March 8, 2012.

<sup>83</sup> THE WHITE HOUSE, REPORT OF THE INDEPENDENT CONSULTANT'S REVIEW WITH RESPECT TO THE DEPARTMENT OF ENERGY LOAN AND LOAN GUARANTEE PORTFOLIO (Jan. 31, 2012), *available at* [http://www.whitehouse.gov/sites/default/files/docs/report\\_on\\_doe\\_loan\\_and\\_guarantee\\_portfolio.pdf](http://www.whitehouse.gov/sites/default/files/docs/report_on_doe_loan_and_guarantee_portfolio.pdf)

<sup>84</sup> Phillip Brown, James Bickley, Bill Canis, "Consultant Review of DOE's Loan and Loan Guarantee Portfolio: Summary and Analysis of Key Findings and Recommendations," Congressional Research Service, Memorandum, March 8, 2012.

### III. DOE Violated Statutory, Regulatory, and Prudential Requirements

The Committee investigation and analysis reveals that, among many other concerns, DOE loan commitments exposed taxpayer funds to excessive risk as a result of DOE's bias toward approving loans without regard to warning signs. In some cases it appears the bias may stem from DOE's susceptibility to effective lobbying efforts, conflicts of interest present in the Administration, or from its overriding policy preference for renewable technology.<sup>85</sup> The Committee identified many cases where the DOE disregarded their own taxpayer protections, ignored lending standards and eligibility requirements and, as a result, amassed an excessively risky loan portfolio. After review of internal emails, staff have identified instances when DOE faced barriers that placed loan approvals at risk, DOE staff simply sought to justify and overcome the barriers, rather than giving the barriers due consideration.

#### A. DOE Repeatedly Violated Requirements Intended to Ensure Innovation and Manage Risk

##### 1. Regulatory Requirements

The Energy Policy Act specifies that the Secretary may *only* make loan guarantees under §1703 for projects that employ "new or significantly improved technologies."<sup>86</sup> DOE's implementing regulation defines this as an energy technology "that is not a Commercial Technology, and that has either (1) Only recently been developed, discovered, or learned; or (2) Involves or constitutes one or more meaningful and important improvements in productivity and value, in comparison to Commercial Technologies in use in the United States. . . ."<sup>87</sup> In applying this definition, it is important to bear in mind the congressional intent underlying title XVII: to incentivize *innovative* technologies.<sup>88</sup>

The Loan Program Office's (LPO) first solicitation, issued on July 29, 2009, targeted innovative projects that satisfied the statutory and regulatory requirements of §1703.<sup>89</sup> Projects approved under this solicitation could access 100% financing through the Federal Financing Bank.

The LPO's second solicitation, issued on October 7, 2009, created the Financial Institution Partnership Program (FIPP) under § 1705.<sup>90</sup> This loan guarantee solicitation was

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<sup>85</sup> An example of evidence indicating a strong ideology: Jonathan Silver, the former Director of the Loan Program Office (LPO) stated in an email to Matthew Winters dated June 9, 2011, in relation to a Treasury review of First Solar cost estimates, "Well done. Sorry you have to deal with all this. Hope the real story of how those folks tried to kill deals that would have moved the needle and created jobs because of a slavish attachment to a flawed and limited world view comes out."

<sup>86</sup> 42 U.S.C. § 16513(a)(2).

<sup>87</sup> 10 C.F.R. § 609.2 (2011).

<sup>88</sup> Energy Policy Act of 2005, Pub. L. 109-58, title XVII, 119 Stat. 1117 (2005).

<sup>89</sup> Innovative Solicitation, *supra* note 14.

<sup>90</sup> FIPP Solicitation, *supra* note 23.

secure the loan itself from a private lender. This structure reflects a reasonable and prudent application of the Department's loan guarantee authority: a project that employs commercialized technology would only need a federal loan guarantee if it was an inherently high-risk venture. The Department prudently sought to mitigate this risk by requiring that it be shared with a private financial institution.

A second requirement in the Code of Federal Regulations only allows for "one technology per project sponsor."<sup>91</sup> Section 609.3(a) states that a Project Sponsor or Applicant may only submit one Pre-Application or Application for one project using a particular technology. The rule prohibits an Applicant from submitting a Pre-Application or Application for multiple projects using the same technology. This common-sense requirement mitigates the risk to taxpayer dollars by ensuring diversity, while increasing the potential for innovation within the Department's loan guarantee portfolio.

Nonetheless, in issuing these loans, DOE disregarded these constraints, often with the explicit encouragement of department officials. Substantial evidence indicates that, in two cases, officials in the Loan Programs Office deliberately mischaracterized substantively identical technologies as dissimilar.<sup>92</sup> In other cases, DOE labeled a technology as "innovative" when it clearly should have been classified as a "proven technology" merely because the particular model had not been sold in the United States.<sup>93</sup> Additionally, there is evidence that applicants, with the encouragement of department officials, intentionally mischaracterized their projects as "innovative" in an effort to access the Federal Financing Bank and defeat these prudential requirements.

## 2. The First Solar Scheme

### a. Overview

First Solar manufactures thin film cadmium telluride solar panels and also provides prefabricated solar plants, where buyers can purchase a ready to run solar generation facility that uses First Solar's cadmium telluride panels.<sup>94</sup> First Solar sought to create four turnkey projects with the assistance of DOE loan guarantees and direct loans. Contrary to the law governing DOE loans, these four projects relied on virtually identical solar technology. Accordingly, First Solar's use of the same technology across the four projects resulted in potential violations of federal regulations and the underlying loan solicitations. Specifically, through DOE's funding of three First Solar projects, DOE and First Solar may have violated regulations imposing the innovativeness requirement<sup>95</sup> and violated the regulation that allows only one technology per project sponsor.<sup>96</sup>

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<sup>91</sup> 10 C.F.R. § 609.3(a) (2011).

<sup>92</sup> See discussion *infra* Part III.A.2.

<sup>93</sup> See discussion *infra* Part III.A.2 c.

<sup>94</sup> See First Solar, Product and Services, available at <http://www.firstsolar.com/Products-and-Services/Products>

<sup>95</sup> The Energy Policy Act specifies that the Secretary may *only* make loan guarantees under §1703 for projects that employ "new or significantly improved technologies." 42 U.S.C. § 16513(a)(2). DOE's implementing regulation defines this as an energy technology "that is not a Commercial Technology, and that has either (1) Only recently been developed, discovered, or learned; or (2) Involves or constitutes one or more meaningful and important

under the DOE's RFP solicitation that allowed for non-innovative projects. The other two projects, Agua Caliente and Antelope Valley Solar Ranch, sought and succeeded in gaining an advanced position in the application process by purchasing existing projects from Nextlight Renewable Power ("Nextlight") that previously filed applications with DOE. However, the projects purchased from Nextlight had applied under the DOE's "innovative" solicitation.

First Solar always intended to use the same technology across all four projects. However, given the innovativeness requirement that applied to Agua Caliente and Antelope Valley Solar Ranch, as a result of Nextlight's original applications, these projects still needed to be deemed innovative. Additionally, the two projects needed to comply with the one technology per project sponsor requirement. This latter requirement meant that the two "innovative" projects also needed to be differentiated from each other to qualify.

First Solar's Agua Caliente and Antelope Valley Solar Ranch received funding despite the fact that each project may have violated the regulations described above. In the next section, we describe these violations in greater detail, provide the motives of DOE and the Administration, and offer documentation indicating DOE manufactured evidence of compliance with these rules while internally conceding their failure to adhere to the law.

#### *b. The Manufacturing Plant that Motivated Action on All Four First Solar Projects*

While DOE publicly talked about the merits of each First Solar project individually, internal DOE emails indicate that DOE favored First Solar projects and viewed them collectively because DOE sought to enable First Solar to build a new manufacturing plant in Arizona.<sup>97</sup> The logic was simple: four solar generation projects would provide sufficient demand to justify and support locating a new First Solar manufacturing plant in Arizona.<sup>98</sup>

The White House planned to use this new manufacturing plant and the jobs that it supported as evidence of the indirect benefits of DOE loan guarantees for the economy. Documents and e-mails obtained by the Committee offer unique insight on how decisions were made. In an e-mail from Jonathan Silver, Executive Director of the Loan Programs Office at DOE, to Deputy Energy Secretary Daniel Poneman in May of 2011 demonstrates DOE's plan to group the First Solar deals as a package. Silver wrote that "First [S]olar deals need to be considered as a package since they support the building of a manufacturing plant to service their collective needs."<sup>99</sup> The White House supported this packaging idea. In an email to other DOE officials from June 2011, Matthew Winters, Senior Advisor for Loan Programs at DOE, wrote:

We have often talked about how the 3 FSLR [First Solar] projects were are (sic) considering will support the building of a manufacturing facility in Arizona. Can

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improvements in productivity and value, in comparison to Commercial Technologies in use in the United States..."  
See 10 C.F.R. § 609.2 (2011).

<sup>96</sup> Section 609.3(a) states "[a] Project Sponsor or Applicant may only submit one Pre-Application or Application for one project using a particular technology. The rule prohibits an Applicant from submitting a Pre-Application or Application for multiple projects using the same technology. See 10 C.F.R. § 609.3(a) (2011).

<sup>97</sup> Email from Jonathan Silver, DOE, May 31, 2011 (on file with author)

<sup>98</sup> *Id.*

<sup>99</sup> *Id.*

the case, and give the location, size, and expected construction date of the facility? This will go into a document for the White House that describes the manufacturing impact of the projects in our pipeline.<sup>100</sup> (emphasis added)

### c. *The Collective Application of First Solar*

The DOE's treatment of the First Solar applications during the credit review process demonstrates the Department realized the projects all employed the same non-innovative technology. DOE considered packaging three First Solar projects as one vote in front of the DOE credit review board (the Antelope Valley, Topaz, and Desert Sunlight projects), despite the projects coming from different solicitations (innovative versus commercial). Margot Anderson, a Senior Advisor at DOE, wrote an email on June 25, 2011, before the DOE credit review board voted to grant conditional guarantees to three First Solar projects (Antelope Valley, Topaz, and Desert Sunlight), asking "[S]hould it be three separate votes or one vote for all three projects?"<sup>101</sup> While the credit review board appears to have voted separately for all three projects, this conversation reinforces the mindset within DOE that all First Solar projects represented a package and not individual projects.

Despite ultimately approving credit individually for each project, the next email shows the extent to which DOE wanted "all of the deals to look exactly alike":

Our question is simply "is there an issue if we bring all of the First solar projects including the various IEs (Luminate and Burns and Roe) into the same room to discuss the terms of the deals?" Essentially, we want all of the deals to look exactly alike. First Solar has suggested the meeting so they are on board the IEs are OK with it but one brought up the [Non-Disclosure Agreement] issue and I want to get that resolved. Jonathan want[s] the meeting to happen this week or early next, to get these projects going.<sup>102</sup>

With this plan to package the First Solar deals, DOE granted conditional loan guarantees to four First Solar projects that used First Solar's cadmium telluride photovoltaic solar panels.<sup>103</sup> DOE describes this technology as "commercially proven" and "deployed since 2001."<sup>104</sup> Yet, DOE was classified two of First Solar's projects as innovative and ignored the "one sponsor per technology per solicitation."<sup>105</sup>

<sup>100</sup> Email from Matthew Winters, DOE, June 14, 2011. (Emphasis added).

<sup>101</sup> Email from Margot Anderson, DOE, June 25, 2011.

<sup>102</sup> Email from Jeffrey Walker, DOE, to Susan Richardson and Kimberly Heimert, DOE, Subject "Bridge [Non Disclosure Agreements] for this unusual circumstances," (March 29, 2011, 8:21 AM).

<sup>103</sup> DOE did not finalize First Solar's Topaz project and only gave final approval to three First Solar projects. Upon finalization of its DOE loan guarantees, First Solar sold all of its development projects to large utilities, such as Exelon and NextEra.

<sup>104</sup> "Energy Department Finalizes Loan Guarantee to Support California Solar Generation Project," U.S. Department of Energy, September 30, 2011. Available at: <https://ipo.energy.gov/?p=5324>.

<sup>105</sup> This scheme coincidentally improved the financing terms of the programs by enabling the government to provide a 100% direct loan as opposed to an 80% loan guarantee. Specifically, those entities approved under the innovative path received direct federal loans from the Federal Financing Bank (FFB) for 100% of the sought after amount. Had these entities gone through the commercial path, they would need to borrow from a private lender who would then



To understand why DOE manipulated the First Solar applications one must understand how these projects came to pass. First Solar purchased NextLight Renewable Power in a deal that included NextLight's two pending DOE loan guarantee projects—Agua Caliente and Antelope Valley Solar Ranch—in April of 2010.<sup>106</sup> DOE had invited both NextLight projects into the due diligence level in the loan application process,<sup>107</sup> indicating that both continued to progress successfully towards ultimate approval. NextLight had applied for innovative loan guarantees for both projects. Under Nextlight's applications, the Agua Caliente project would use amorphous silicon technology, and the Antelope Valley project would use crystalline silicon solar technology.<sup>108</sup>

When First Solar purchased NextLight, it planned to switch to its own proven – and non-innovative – technology relying on cadmium telluride panels for both projects. However, First Solar wanted to keep both projects in the innovative technology queue. First Solar faced two challenges to keep both projects in the innovative queue. First, the company had to prove that both projects used innovative technology; while using First Solar cadmium telluride panels for the projects that would not qualify as innovative. Second, First Solar had to ensure that both projects used different “innovative” technologies, otherwise the projects would violate the DOE rule that one company could only sponsor one project using a specific innovative technology under the innovative technology solicitation.

#### *e. Failure to Prove Innovativeness; Resorting to Falsification*

First Solar planned to qualify both projects for the innovative solicitation by incorporating relatively minor new technologies into the solar plants. The Agua Caliente project would use standard First Solar cadmium telluride panels, but would use an inverter “fault ride-through and dynamic voltage regulation” technology<sup>109</sup> that would help the plant stay operational even if the sun did not shine constantly on a particular day.<sup>110</sup> First Solar relied on this inverter

receive at most an 80% guarantee. Therefore, the non-innovative entities benefitted from the false “innovative” designation in that they received fully guaranteed funding, as opposed to partially guaranteed, reducing their cost of borrowing. The other two First Solar projects received partial loan guarantees as part of the Financial Institution Partnership Program.

<sup>106</sup> Dealbook, *First Solar Buys NextLight for \$285 Million*, N.Y. TIMES, April 29, 2010 available at <http://dealbook.nytimes.com/2010/04/29/first-solar-buys-nextlight-for-285-million/>

<sup>107</sup> Email from Daniel Tobin, Director of Loan Programs Intake Division and Senior Investment Officer, U.S. Dep't of Energy (July 23, 2010).

<sup>108</sup> Internal Memo from Dong Kim, Chief Engineer of the Technical and Project Management Division, U.S. Dep't of Energy, to David Frantz, Director of Loan Guarantee Program Office, U.S. Dep't of Energy (July 25, 2010).

<sup>109</sup> Press Release, U.S. Dep't of Energy, Department of Energy Finalizes a \$967 Million Loan Guarantee to Support the Agua Caliente Solar Project (Aug. 5, 2011) available at <http://energy.gov/articles/departement-energy-finalizes-967-million-loan-guarantee-support-agua-caliente-solar-project>.

<sup>110</sup> U.S. Dep't of Energy, Internal Memo, “Next Light Antelope Valley Technical Eligibility Re-Evaluation” (July 21, 2010); See also email from Cathy Grover, Luminare, to Robin L. Sampson, U.S. Dep't of Energy (Mar. 30, 2011, 3:39 PM EST), which stated, “The Project's inverter that we show currently specified is an SMA 630CP ... From a design perspective, switching to the 720CP (from the 630CP, if this is in fact what First Solar is doing), has no real impact on the electric energy production values.”

An email between DOE staff describes the lack of innovativeness of this inverter technology, stating, "The Project's inverter that we show currently specified is an SMA 630CP ... From a design perspective, switching to the 720CP (from the 630CP, if this is in fact what First Solar is doing), has no real impact on the electric energy production values."<sup>112</sup> A DOE whitepaper reveals that more than 200 of these allegedly "innovative" inverters had been in use in Germany, Italy and Spain since September 2010.<sup>113</sup> While, according to the rule, foreign commercial use of a technology is not a bar to deeming domestic use innovative, the broad commercial use in Europe reflects the disrespect DOE applies to the actual innovativeness requirement.

Directly calling into question any determination that this technology is innovative, the DOE whitepaper provides that these inverters are "commercially ship[ped] today in the United States as well."<sup>114</sup> The report explains that "the technology being implemented is not new as compared to traditional turbine-based generators" and is commercially manufactured in Colorado.<sup>115</sup> These facts emailed among DOE staff undermine any determination of innovativeness and clearly indicate that Agua Caliente failed to satisfy the requirements designed to spur development of new technologies.<sup>116</sup>

First Solar also planned to use this inverter technology to make the Antelope Valley project innovative; however, even if the technology were innovative with regard to Agua Caliente, its second application to Antelope Valley would violate the one technology per project sponsor requirement.<sup>117</sup> To overcome this obstacle, First Solar added a "single axis tracking" system for the Antelope Valley project to differentiate it.<sup>118</sup> This system simply allowed the panels to track the sun – a technology that has been around for decades. Additionally, First Solar

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<sup>111</sup> See "NEXT LIGHT ANTELOPE VALLEY TECHNICAL ELIGIBILITY RE-EVALUATION" attachment (July 21, 2010) to email from Sarah Hetznecker, U.S. Dep't of Energy, to Patrick Gorman, U.S. Dep't of Energy, Subject: "here is the antelope valley re-evaluation memo" (July 22, 2010 9:06 AM).

The Antelope Valley Project will use the new Fault Ride-Through Technology inverters that are being used in the Agua Caliente Project and were the basis for new and significantly improved technologies as compared to commercial technologies for that project. While this is being used on both of these projects, it will meet the definition of "new of [sic] Significantly Improved Technology and it is not a Commercial Technology, because it is not being used in three or more commercial projects in the US in the same general application and it has not been in operation for 5 years. In addition, First Solar will use single axis tracking on 50 MW of the 230 MW for the Antelope Valley Project. Based up on the re-evaluation, we conclude that the project will meet the eligibility criteria

<sup>112</sup> Email from Cathy Grover, Luminate, to Robin Sampson, U.S. Dep't of Energy (March 30, 2011, 3:39 PM).

<sup>113</sup> "Antelope Valley Solar Ranch 1 Project: Inverter Implementation Whitepaper" (May 18, 2011) (Email from Sarah Hetznecker to Jeffrey Walker (May 22, 2011, 12:14:03 PM)).

<sup>114</sup> *Id.*

<sup>115</sup> *Id.*

<sup>116</sup> See *supra* note 87.

<sup>117</sup> See *supra* note 91.

<sup>118</sup> Dong Kim, U.S. Dep't of Energy Memo, "First Solar (Next Light) Antelope Valley Solar Ranch One Technical Eligibility Re-Evaluation" (Aug. 4, 2010).

Rather than force First Solar's Antelope Valley project to step out of the innovation queue, DOE quickly created a memo that allegedly justified the project remaining "innovative." The memo claimed that the Antelope Valley project would use three different innovative technologies: Fault Ride-Through Technology, Dynamic Voltage Regulation, and single axis tracking.<sup>120</sup> Internal DOE emails reveal a rushed process that left certain DOE officials questioning the validity of the analysis.<sup>121</sup> DOE officials also heavily edited the memo to deemphasize First Solar's other pending projects and the fact that the Antelope Valley project used the same "innovative" technology as the Agua Caliente project.<sup>122</sup>

More importantly, on June 23, 2011, Dong Kim, Director of the Technical and Project Management Division, (who had edited the DOE memo on Antelope Valley's innovativeness referenced above) wrote an email indicating that the allegedly innovative tracking technology did not constitute innovativeness, was not considered innovative originally, and also pointed out that others continuously revised documents to incorrectly reflect that the trackers were "innovative." Kim wrote:

**Someone keeps changing [Antelope Valley Solar Ranch] Technical slides to include single axis trackers as an innovation. Be clear that this not an innovation. The record will show that we did not grade this as innovative during intake review.** It will not stand up to scrutiny if compared with CVSR [California Valley Solar Ranch] trackers. Whoever continues to make this change needs to understand that Technical does not support the 20 percent of the CVSR field with trackers as an innovative component.<sup>123</sup> (emphasis added)

The apparent cover-up that led to Kim's stern email indicates that DOE staff sought to maintain a false finding of "innovative" for the single axis trackers.

DOE's August 4, 2010, memo claimed that the Antelope Valley project used three innovative technologies. However, DOE's Director of the Technical and Project Management Division revealed that the single axis trackers did not qualify as innovative and DOE's own press release demonstrated that the Agua Caliente project already used both the fault ride-through and the dynamic voltage regulation technologies.<sup>124</sup> Since Agua Caliente had already received a loan guarantee using this "innovative" technology, Antelope Valley was barred from relying on the same technology for its innovativeness-based application. As a result, Antelope Valley provided

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<sup>119</sup> *Id.*

<sup>120</sup> *Id.*

<sup>121</sup> Email from Susan Grodin, U.S. Dep't of Energy (Aug. 3, 2010) (stating that "this memo was cobbled together from different sources and in so doing, an obvious piece was left out").

<sup>122</sup> Dong Kim, U.S. Dep't of Energy, Technical memo (July 25, 2010) (discussing that DOE's tracked changes on the memo reveal that DOE removed references to First Solar's Desert Sun and Topaz projects from the second paragraph and removed an entire paragraph discussing how the Antelope Valley project and the Agua Caliente project use the same Fault Ride Through Technology).

<sup>123</sup> Email from Dong Kim, U.S. Dep't of Energy (June 23, 2011).

<sup>124</sup> Press Release, U.S. Dep't of Energy, Department of Energy Finalizes a \$967 Million Loan Guarantee to Support the Agua Caliente Solar Project (Aug. 5, 2011) available at <http://energy.gov/articles/department-energy-finalizes-967-million-loan-guarantee-support-agua-caliente-solar-project>.

*f. Persistent Pressure to Approve the First Solar Projects and Achieve the Master Plan of Building a Manufacturing Facility*

First Solar kept pressure on DOE to approve the three projects in the final weeks leading up to DOE's issuance of conditional loan guarantees. On May 18, 2011, Jens Meyerhoff, an executive at First Solar, wrote a letter to Jonathan Silver implicitly threatening that First Solar might not commit to completing construction on the Arizona manufacturing plant if DOE did not approve all three First Solar loan guarantees. Meyerhoff wrote:

A failure to receive DOE and U.S. government agency approvals for these projects or missing the September 30 statutory deadline under the 1705 program would seriously jeopardize the financing for the Agua Caliente, Antelope Valley Solar Ranch, Desert Sunlight and Topaz projects. As you know, a major reason for choosing to build the manufacturing plant in Mesa, AZ was to provide solar modules to these large and important U.S. projects.

We will invest more than \$300 million in the factory, put people in Mesa to work at a long-dormant industrial site that once was home to an automotive testing facility, and create high tech green jobs that did not exist before...

...First Solar consciously made the decision to build a new U.S. manufacturing center to support and recycle economic benefits created by favorable U.S. political support for renewable energy, including the 1703 and 1705 DOE loan guarantee programs.

The DOE loan programs provide an important financing 'bridge' at a time when the U.S. private debt markets have little or no experience financing first-of-their-kind utility-scale solar projects, and the capital markets remain constrained in the wake of the global financial crisis. If First Solar's project applications are not approved, or if they're delayed beyond September 30, we believe it could jeopardize our ability to close financing (both debt and equity), jeopardize construction of 1,620 megawatts of solar capacity and, **frankly, undermine the rationale for a new manufacturing center in Arizona.**<sup>125</sup>

First Solar also tried more friendly persuasion. Nikolas Novograd, Vice President at First Solar, sent Bill Pegues at DOE a picture of the construction taking place at First Solar's Arizona plant. Pegues planned to use the construction picture to help persuade members of the credit review board to vote for the First Solar projects. He forwarded the picture to several DOE officials, commenting, "[H]ere's a photo of the construction

<sup>125</sup> Letter from Jens Meyerhoff, First Solar, to Jonathan Silver, Director of Loan Programs Office, U.S. Dep't of Energy (May 18, 2011), *emphasis added*.

June 24, 2011, only days before the Credit Review Board met to decide whether to grant conditional loan guarantees to the three First Solar projects.<sup>127</sup>

By June 22, 2011, several days before the Credit Review Board approved conditional loan guarantees for the projects, Secretary Chu's office had already planned a press release to announce the conditional loan guarantees for the First Solar projects that relied upon job creation numbers from First Solar itself.<sup>128</sup> Secretary Chu's office carefully coordinated the media strategy for the approval of the conditional loan guarantees for the three First Solar projects. Sonia Taylor at DOE wrote in an email on June 28, 2011, that

S1's office hopes to offer an advanced story to a national reporter on all three First Solar deals later today, with a story to run tomorrow along with the press release...

...If you haven't already, can you all please notify the appropriate people from First Solar and the other companies that the deal is official? I have been working with First Solar (**under the guise of 'should the deal be approved'**), and they do not plan on writing a press release. Can you all please see whether the banks plan on issuing a release? If so, we'll need to review it.<sup>129</sup> (emphasis added)

On June 30, 2011, DOE issued a press release that announced the conditional loan guarantees for the three First Solar projects for around \$4.5 billion.<sup>130</sup> The six paragraph announcement only mentioned First Solar once and described the Antelope Valley project as featuring "a utility-scale deployment of innovative inverters with voltage regulation and monitoring technologies that are new to the U.S. market."<sup>131</sup> The press release did not mention the trackers on the Antelope Valley project.

DOE would eventually issue final loan guarantee offers to First Solar's Antelope Valley and Desert Sunlight projects on the final day of the 1705 loan guarantee program (September 30, 2011).<sup>132</sup> Despite the issues surrounding the innovative nature of the Antelope Valley project, DOE finalized a 100% loan guarantee worth \$646 million for the allegedly "innovative" project. Ultimately, DOE did not finalize First Solar's Topaz

<sup>126</sup> Email from Bill Pegues, U.S. Dep't of Energy (June 23, 2011).

<sup>127</sup> Email from Elizabeth Emanuel, U.S. Dep't of Energy (June 24, 2011).

<sup>128</sup> Email from William Pegues, U.S. Dep't of Energy (June 22, 2011).

<sup>129</sup> Email from Sonia Taylor, U.S. Dep't of Energy (June 28, 2011).

<sup>130</sup> Press Release, U.S. Department of Energy, DOE Offers Conditional Loan Guarantee to Support Nearly \$4.5 Billion in Loans for Three California Photovoltaic Solar Power Plants (June 30, 2011) available at <https://dpo.energy.gov/?p=4873>.

<sup>131</sup> *Id.*

### g. *First Solar's Financial Problems since the Loan Guarantees*

Since DOE finalized First Solar's three loan guarantees (for over \$3 billion), First Solar has encountered serious financial problems that put the DOE funded projects in jeopardy. First Solar's stock declined the greatest compared to of any S&P 500 companies in 2011 and has lost over \$100 per share over the past year.<sup>134</sup> First Solar has cut production of its solar panels worldwide.<sup>135</sup> Based upon the company's financial troubles, First Solar fired its CEO in October.<sup>136</sup> Additionally, in March 2012, the Securities and Exchange Commission announced an investigation into whether First Solar had improperly disclosed information about whether the First Solar Topaz project would receive a loan guarantee from DOE.<sup>137</sup>

More recently, First Solar has revealed problems that directly impact its three DOE loan guarantee projects. First Solar's Antelope Valley project had problems getting a permit and has yet to receive any DOE funding.<sup>138</sup> First Solar announced in late February that it would postpone manufacturing solar panels at its Mesa Arizona plant, which is still under construction, because of financial problems.<sup>139</sup> First Solar intended for the Mesa facility to provide panels to the four First Solar projects. This delay means that the indirect jobs that the White House wanted to create with the three loan guarantees will likely never materialize, and raises questions about whether First Solar will have problems supplying solar panels to its DOE loan guarantee projects. Additionally, First Solar has revealed that it has needed to replace millions of dollars worth of its solar panels under warranty because they did not last in hot climates.<sup>140</sup> Considering all three of First Solar's DOE-based solar generation projects are located in hot desert climates, this issue raises serious concerns about whether the panels will work properly long term.

### h. *Conclusion*

There appears to be a significant amount of evidence, based on documents received by the Committee and supplied by DOE and others, indicating that DOE manipulated its analysis and strategically modified evaluations in order to issue loans to First Solar that would qualify

<sup>133</sup> Todd White and Marc Roca, *Berkshire Buys \$2 Billion Power Projects as Buffett Wagers on Solar Energy*, BLOOMBERG, December 7, 2011 available at <http://www.bloomberg.com/news/2011-12-07/berkshire-a-midamerican-energy-to-buy-topaz-solar-firm.html>.

<sup>134</sup> "First Solar (FSLR) Worst Stock in S&P 500 This Year," StreetInsider, December 30, 2011 available at [http://www.streetinsider.com/Insiders+Blog/First+Solar+\(FSLR\)+Worst+Stock+in+S%26P+500+This+Year/7046826.html](http://www.streetinsider.com/Insiders+Blog/First+Solar+(FSLR)+Worst+Stock+in+S%26P+500+This+Year/7046826.html).

<sup>135</sup> Patrick O'Grady, *First Solar delays Mesa production plant*, PHOENIX BUS. J., February 29, 2012 available at [http://www.bizjournals.com/phoenix/morning\\_call/2012/02/first-solar-delay-mesa-production-plant.html](http://www.bizjournals.com/phoenix/morning_call/2012/02/first-solar-delay-mesa-production-plant.html).

<sup>136</sup> *First Solar Ousts CEO, Shares Dive 24 Percent*, REUTERS, October 25, 2011 available at [http://www.cnbc.com/id/45035458/First\\_Solar\\_Ousts\\_CEO\\_Shares\\_Dive\\_24\\_Percent](http://www.cnbc.com/id/45035458/First_Solar_Ousts_CEO_Shares_Dive_24_Percent).

<sup>137</sup> Patrick O'Grady, *SEC investigating First Solar*, PHOENIX BUS. J., March 4, 2012 available at [http://www.bizjournals.com/phoenix/morning\\_call/2012/03/sec-investigating-first-sola.html](http://www.bizjournals.com/phoenix/morning_call/2012/03/sec-investigating-first-sola.html).

<sup>138</sup> Yuliya Chernova and Cassandra Sweet, *California Solar Deal Hits a Snag*, WALL ST. J., February 11, 2012 available at <http://online.wsj.com/article/SB10001424052970203646004577214973345400202.html>.

<sup>139</sup> O'Grady, *supra* note 132.

<sup>140</sup> Ryan Randazzo, "First Solar replacing more solar panels," *The Arizona Republic*, March 1, 2012 available at <http://www.azcentral.com/arizonarepublic/business/articles/2012/03/01/20120301first-solar-replacing-more-solar-panels.html>.

analysis, results in the defrauding of taxpayers and misappropriation of assets.<sup>141</sup> Furthermore, any advantage to an applicant disadvantages other applicants and improperly diverts DOE resources.

## **B. DOE Violated the Statutory Requirement that Projects Commence Construction by September 30, 2011**

The Recovery Act states that the Secretary may only make loan guarantees under § 1705 for projects “that commence construction not later than September 30, 2011.”<sup>142</sup> This provision is designed to effectuate the *rapid* deployment of renewable energy projects. Furthermore, § 3(b) of the Act mandates that the Secretary expend appropriated funds “as quickly as possible consistent with prudent management,” so as to achieve the Act’s stated goal of economic stimulus.<sup>143</sup> This “shovel-ready” requirement also helps to mitigate risks associated with too many unknown variables.

The DOE knowingly violated this explicit statutory mandate. The Department’s FIPP loan guarantee solicitation from October 7, 2009, defined “commence construction on before September 30, 2011” to mean that

(i) the Borrower has completed all pre-construction engineering and design, has received all necessary licenses, permits and local and national environmental clearances, has engaged all contractors and ordered all essential equipment and supplies as, in each case, can reasonably be considered necessary so that physical construction of the Eligible Project may begin (or, if previously interrupted or suspended, resume) and proceed to completion without foreseeable interruption of material duration and (ii) such physical construction (including, at a minimum, excavation for foundations or the installation or erection of improvements) at the primary site of the Eligible Project has begun (or resumed).

On September 30, 2011 – the last day of the program – the Secretary approved a \$1.4 billion loan guarantee for Project AMP. Project AMP intends to install solar panels on the rooftops of many of ProLogis’ extensive real estate holdings. However, as the September 2011 application approval deadline approached, Project AMP was nowhere near prepared to commence construction, in part because it failed to secure contractual commitments to purchase energy from its proposed solar generation facilities.<sup>144</sup> Construction cannot begin for any phase of Project AMP until parties agree to a Power Purchase Agreement (PPA), which helps to ensure sufficient revenue to justify an installation of solar panels. As of March 6, 2012, Project AMP

<sup>141</sup> See discussion *infra* Part V.A. and V.B.

<sup>142</sup> 42 U.S.C. § 16516(a).

<sup>143</sup> American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, §3(a), 123 Stat. 115 (2009).

<sup>144</sup> Email from Eric Mogilnicki, WilmerHale, counsel to Bank of America, the lead lender for Project AMP (Mar. 6, 2012) (on file with author).

Consistent with Project AMP's lack of preparedness to commence construction, Fitch Ratings imposed a "framework" methodology to rate the credit risk of Project AMP.<sup>146</sup> Fitch explained that, due to a lack of negotiated prices, a lack of known product suppliers, and a lack of PPAs, Fitch could not model cash flows or consider the credit quality of the businesses the project would transact with.<sup>147</sup> For this reason, Fitch mandated the use of a framework approach that imposed minimum credit quality requirements and other controls to ensure adequate credit quality relating to future transactions.<sup>148</sup> Fitch also required that Project AMP return to Fitch to receive ratings for each phase prior to seeking DOE loan disbursements consistent with the framework approach.<sup>149</sup> As of March 6, 2012, Project AMP had not sought ratings for any phase of Project AMP.<sup>150</sup> This further clarifies the extent of Project AMP's failure to commence construction.

While the credit rating methodology appears appropriate given the circumstance, the need to apply this approach reflects Project AMP's failure to meet the specific requirements of the law. Nonetheless, DOE approved Project AMP's loan guarantee for \$1.4 billion dollars. DOE approval of this project on the final day with pressure from Secretary Chu reflects improper influence and recklessness that led to an extremely large and inappropriate loan commitment.<sup>151</sup>

As we describe in Section D below, following DOE's approval of Project AMP, natural gas prices fell dramatically, resulting in substantially lower power prices in areas where natural gas generation provides the marginal supply of power. Lower market prices for power reduce potential revenue for all PPAs – in other words, solar power directly competes against natural gas fired generation. Had Project AMP locked in PPAs at the time DOE approved its loan, this loss of potential revenue would have been avoided. Given the lag between approval and PPA negotiation, price risk materialized, likely reducing the aggregate value of Project AMP as a direct consequence of Secretary Chu's inappropriate approval.

Had DOE rejected Project AMP due to its failure to commence construction, the government and participants in the project would have avoided misallocating capital to a project that was premature.

### **C. DOE Violated the Statutory Requirement of "Superiority," Illegally Benefiting Banks at the Expense of Taxpayers**

When it created the loan guarantee program, Congress took several steps to protect taxpayer funds and limit the DOE's risk exposure. These restrictions are recited in § 1702 of the

<sup>145</sup> *Id.*

<sup>146</sup> See Fitch Ratings, "Credit Rating for ProSun Project Company, LLC. - Project AMP" (August 21, 2011).

<sup>147</sup> See *id.* for additional detail on ratings approach provided through discussions with Fitch Ratings staff responsible for Project AMP ratings and Bank of America staff involved with Project AMP.

<sup>148</sup> *Id.*

<sup>149</sup> *Id.*

<sup>150</sup> Mogilnicki, *supra* note 144.

<sup>151</sup> See Ryan Tracy and Cassandra Sweet, *Emails Show Chu's Loan-Deal Role*, WALL ST. J., Feb. 18, 2012 available at <http://online.wsj.com/article/SB10001424052970204059804577229661338221828.html>.



the most important risk-limiting provisions requires the Secretary to secure a superior claim to any assets in the event of a default.<sup>153</sup> The statute unequivocally requires that these rights must be “superior to the rights of any other person.”<sup>154</sup> This common-sense rule ensures that if the U.S. government is on the hook to pay off creditors, it should be able to recover at least some of its losses.

This right to superiority over collateral is appropriate given that taxpayers enabled the transaction through provision of a subsidy. Given the substantial risk associated with DOE loan guarantees and the lack of any potential for the taxpayer to profit, the law required that the DOE at least maintain a superior position with respect to collateral to protect taxpayers in the event that a project failed. Private banks stand to profit if a project succeeds, while also avoiding substantial downside risk if a project fails. Given these clear benefits to lenders, Congress determined that lenders should not also gain parity with the DOE on the rights of collateral and inserted the “superiority” provision to prevent weakening the taxpayer’s position.

In what can only be considered a preemptive bailout for banks, DOE eliminated taxpayer protections by agreeing to share its rights in the collateral of failed projects with private lenders. Notwithstanding the clarity of the statutory requirement and the policy basis for it, the DOE enacted regulations that allowed banks to gain parity with the United States with regard to collateral.<sup>155</sup> While this may have increased its lending authority, it did so by weakening the taxpayer’s protections.

A review of the seven Financial Institution Partnership Program based loan guarantees reveals that DOE agreed to share its collateral rights with the lenders for all FIPP loans issued after enactment of the DOE regulations.<sup>156</sup> Instead of selectively sharing collateral for the safest projects, DOE instead applied this approach to all FIPP loans, irrespective of the highly varying deal terms, credit quality and loan amounts.<sup>157</sup> In no case did DOE withhold this benefit from banks to protect taxpayers. In effect, DOE behaved as if its new interpretation of the law *mandated* that banks be placed on par with taxpayers.

## 1. Superiority of Rights vs. *Pari Passu* Sharing

In the event of a default, a loan guarantee provides assurances to banks and other lenders that they will recover 80% of the money loaned to the renewable energy project.<sup>158</sup> This money comes from the American taxpayer. Under the system designed by Congress, while taxpayers

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<sup>152</sup> 42 U.S.C. § 16512 (“... the Secretary shall make guarantees under this or any other Act for projects on such terms and conditions as the Secretary determines, after consultation with the Secretary of the Treasury, only in accordance with this section).

<sup>153</sup> 42 U.S.C. § 16512(g)(2)(B) (“The rights of the Secretary, with respect to any property acquired pursuant to a loan guarantee or related agreement, shall be superior to the rights of any other person with respect to the property”).

<sup>154</sup> *Id.*

<sup>155</sup> 74 Fed. Reg. 63,544 (Dec. 4, 2009) (to be codified at 10 C.F.R. pt. 609).

<sup>156</sup> See “Terms and Conditions relating to loan agreements for all DOE-backed FIPP projects agreed to after December 4, 2009” (on file with author).

<sup>157</sup> *Id.*

<sup>158</sup> See 42 U.S.C. § 16512(c) (stating “a guarantee by the Secretary shall not exceed an amount equal to 80% of the project cost of the facility that is the subject of the guarantee...”).

position to try to recover investment based on the sale of the detaching company's assets.<sup>159</sup> However, under the contracts awarded under § 1705, DOE included *pari passu* terms, which puts a lender in a position equal to the taxpayer with respect to rights to collateral.

The Department of Energy's approach ignores the plain letter of the law. Section 1702(g)(2)(B) contains the *Superiority of Rights* provision ("*Superiority*").<sup>160</sup> *Superiority* provides that "[t]he rights of the Secretary, with respect to any property acquired pursuant to a guarantee, shall be superior to the rights of any other person with respect to the property." The statute clearly requires that DOE maintain superiority with regard to assets acquired as a result of a guarantee, and, as a result, precludes sharing the collateral with other creditors. Such sharing of collateral also flies in the face of the FIPP program requirements, which mandate loan guarantees to cover no more than 80% of any loan.

Consider the following hypothetical example:

DOE guarantees 80% of a billion dollar loan, which defaults. Upon default, the DOE pays \$800 million to the senior creditor protected by the DOE loan guarantee. Assume the leftover assets are worth \$500 million. Under this Administration's *pari passu* construct, DOE shares its senior rights to the recovery with the senior lenders, who already received \$800 million from the loan guarantee. Therefore, DOE recovers 80% of the \$500 million recovery, or \$400 million; the non-guaranteed lenders recover an additional 20% of the \$500 million, which equals \$100 million.

Recall that the lenders already recovered \$800 million for their guaranteed portion. This means that in the aggregate, the private lenders that received the DOE loan guarantee recovered \$900 million of the total billion dollar loan or 90%. Yet the law intended for taxpayers to be in first position with respect to the full \$500 million in this hypothetical. Accordingly, *Pari Passu* terms directly violate the FIPP solicitation requirements.

## **2. Congress Specifically Considered and Rejected Changes to the Superiority Provision that Would Have Allowed for *Pari Passu* Credit Terms**

Supporters of *pari passu* credit terms for DOE loan guarantees sought to change the law to allow for such credit structures. On July 16, 2009, Senate Bill S. 1462, which would have modified Title XVII to allow for *pari passu* credit terms by disabling the *Superiority* provision, was passed by the Senate Energy and Natural Resources Committee, but failed to pass the full Senate.<sup>161</sup> Also, in the last Congress, the House of Representatives passed "Cap and Trade," under H.R. 2454. That bill had an identical provision to disable *Superiority* under Title XVII. H.R. 2454 also failed to become law.

The time invested in drafting a bill and seeking to pass it in both the Senate and the House reflects the effort and analysis that many lawmakers put into this issue. This is the clearest evidence that Congress does not recognize the DOE's authority to provide § 1705 loans

<sup>159</sup> See 42 U.S.C. § 16512(g)(2)(B).

<sup>160</sup> *Id.*

<sup>161</sup> See S. 1462, 111th Cong. § 103(b)(3) available at [http://energy.senate.gov/public/\\_files/s1462pcs1.pdf](http://energy.senate.gov/public/_files/s1462pcs1.pdf).

### 3. The Department of Energy Knowingly Violated the Law

Notwithstanding Congress's rejection of these bills that were designed to weaken taxpayer protections, on December 4, 2009, the DOE issued final regulations to allow for *pari passu* treatment of DOE loan guarantees.<sup>162</sup> By these actions, the DOE disregarded the law and Congress. The specific approach used in both S. 1462 and H.R. 2454 highlights the fact that the law currently does not allow for *pari passu* treatment specifically due to the *Superiority* provision. DOE's awareness of Congress's failure to change the law indicates DOE understood it may be violating the law when it provided loan guarantees with *pari passu* credit terms.

The Committee raised these concerns in a letter to the Secretary dated December 7, 2011.<sup>163</sup> The Department of Energy responded by asserting that § 1702(g)(2)(B) only "governs post-default rights of the Secretary, rather than conditions that must be met at the time the Secretary determines to make a loan guarantee."<sup>164</sup> Under the DOE's interpretation of the statute, "[o]nce the Secretary has actually acquired property through the Secretary's right of subrogation in a post-default situation, the statute provides that, as a matter of law, the Secretary's rights in that acquired property are superior to any other claimant with respect to that requirement."<sup>165</sup>

The Department's interpretation is lacking on three levels. First, the Secretary can only secure his superior of rights in collateral *before* entering in a loan guarantee contract. To say § 1702(g)(2)(B) only applies after a default renders the provision useless. Second, the preceding quotation from the DOE's response letter evinces the circularity of its logic: once the Secretary has actually acquired property through the right of subrogation, there is no need to provide for a superiority of rights: he has already acquired the property. Finally, the Department's interpretation ignores Congress' clear pronouncements of its understanding that § 1702(g)(2)(B) prohibits *pari passu* terms. The DOE has never addressed these clear statements of congressional intent.

### IV. DOE Has Artificially Inflated Job Creation Statistics

One characteristic of "green jobs" often touted by the Obama Administration is that green industries rely heavily on manpower, a trait that "makes them especially alluring when it comes to government-led job creation" measured in terms of jobs "created or saved."<sup>166</sup> In studies heralding the creation of large numbers of jobs in green jobs programs, there is a consistent preference for inefficiency.<sup>167</sup> This is contrary to the fundamental economic principle that high

<sup>162</sup> 74 Fed. Reg. 63544, 63545 (Dec. 4, 2009) (to be codified at 10 C.F.R. pt. 609).

<sup>163</sup> Letter from Darrell Issa, Chairman, H. Comm. on Oversight and Gov't Reform, to the Honorable Steven Chu, Sec'y of Energy (Dec. 7, 2011).

<sup>164</sup> Letter from David G. Frantz, Acting Executive Director, Department of Energy Loan Program Office, to Darrell Issa, Chairman, H. Comm. on Oversight and Gov't Reform (Jan. 19, 2012).

<sup>165</sup> *Id.*

<sup>166</sup> Liz Wolgemuth, *The Truth and Green Jobs*, U.S. NEWS AND WORLD REPORT, Mar. 25, 2009 available at <http://money.usnews.com/money/careers/articles/2009/03/25/the-truth-about-all-those-green-jobs>.

<sup>167</sup> *Witnesses Provide Various Definitions of Green Jobs Before House Workforce Panel*, DAILY LABOR REPORT, Apr. 4, 2009 at 60.

an economy based on “high paying, low-productivity jobs ... would require an economic structure unknown in human history.”<sup>169</sup>

While the energy sector is a very large source of employment, it is a mistake to treat it as a government jobs program. Dr. David Montgomery, Senior Vice President at NERA Economic Consulting and a former CalTech professor, has explained:

It is a fundamental error in policymaking and economics to design or justify federal support for new energy technologies as a jobs program. It subverts the entire purpose of government involvement in R&D, and is the greatest single cause of the continued failure of energy technology programs.<sup>170</sup>

However, even accepting the premise that it is appropriate to base a jobs program on green energy development, the Administration fails at this objective.

In almost every public statement about its loan guarantee program, DOE touts job creation. DOE’s Loan Programs Office webpage proudly proclaims that DOE expects the loans and loan guarantees to “employ” over 60,000 people.<sup>171</sup> The site also breaks down the number of jobs created or saved by each loan or loan guarantee, and issues press releases for specific projects discussing job creation. These figures are misleading. In reality, the 60,000 number includes jobs that existed at one time, but have since been eliminated; jobs that exist independent of the loan program; and jobs that already existed, but are now considered “green jobs.”

One example of DOE’s misrepresentation of jobs figures relates to a DOE loan guarantee to Ford Motor Company. DOE proclaims that this project, funded through the ATVM program, accounts for 33,000 of the 61,383 jobs. However, these jobs, which DOE represents to be “permanent jobs created or saved,” already existed. Upon closer examination, it appears that DOE reports that the DOE loan “converted” existing jobs to green energy jobs.<sup>172</sup> Had no loan occurred, presumably, the factory would continue to produce non-green energy vehicles; there is no evidence that Ford planned to lay off 33,000 employees if the company had not received the loan. This jobs statistic is also misleading given the statements of David Frantz, Acting Executive Director Loan Program Office and Acting Director ATVM to Committee staff. Mr.

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<sup>168</sup> *Green Jobs and Red Tape: Assessing Federal Efforts to Encourage Employment: Hearing Before the Subcomm. on Investigations and Oversight of the H. Comm. on Science, Space, and Technology*, 112<sup>th</sup> Cong. (2011) (testimony of W. David Montgomery).

<sup>169</sup> Andrew P. Morriss et. al., *7 Myths About Green Jobs*, PERC Policy Series, No. 44, 2009 available at <http://www.perc.org/files/ps44.pdf>.

<sup>170</sup> Prepared Testimony of W. David Montgomery before the Subcomm. on Investigations and Oversight, H. Comm. on Science, Space and Technology, Apr. 13, 2011, available at [http://www.nera.com/nera-files/Montgomery\\_Testimony\\_4\\_13\\_11.pdf](http://www.nera.com/nera-files/Montgomery_Testimony_4_13_11.pdf)

<sup>171</sup> U.S. Dep’t of Energy Loan Programs Office, “Projects” available at: [https://lpo.energy.gov/?page\\_id=45](https://lpo.energy.gov/?page_id=45).

<sup>172</sup> U.S. Dep’t of Energy Loan Programs Office, “Projects: Ford Motor Company” available at <https://lpo.energy.gov/?projects=ford-motor-company>.

Frantz stated during a phone interview, “[ATVM] is not a jobs program. [Job creation] is not a governing factor when we do a deal. It’s only a matter of record.”<sup>173</sup>

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Advanced Technology Vehicles Manufacturing Loan Program (ATVM)

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### Ford Motor Company

Ford Motor Company closed a \$5.9 billion loan arrangement under the Department of Energy's Advanced Technology Vehicles Manufacturing Loan Program to upgrade factories across Illinois, Kentucky, Michigan, Missouri, and Ohio and to introduce new technologies that will raise the fuel efficiency of more than a dozen popular vehicles. The project will convert nearly 33,000 employees to green manufacturing jobs.



Project	Ford Motor Company
Technology	Motor Vehicle
	Manufacturing
Location	Michigan
Loan Amount	\$5,907 billion
Category	ATVM
Status	Closed
Date of agreement	Sep 2006
Jobs Construction	N/A
Perm Jobs Created or Saved	33,000
Generation Capacity (MW)	N/A

DOE also includes failed projects and a project that refused DOE funding in its job creation numbers. Despite Solyndra going bankrupt and firing all of its employees, as of February 20<sup>th</sup>, 2012, DOE still lists Solyndra as creating 3,000 construction jobs (see figure below). While those jobs may have briefly existed, touting jobs for a defaulted project that lost hundreds of millions in taxpayer dollars and including those jobs in a total jobs count prominently displayed on DOE's website is inappropriate and misleading.

<sup>173</sup> Interview with David G. Frantz Acting Director ATVM Program Jan. 13, 2012.

- The first two all-wood vehicle manufacturing facilities in the U.S.
- The world's largest wind farm to date
- Two of the country's first commercial-scale cellulosic ethanol plants
- The first nuclear power plant to be built in the U.S. in the last three decades
- The first distributive photovoltaic energy project on a national scale which places solar panels on commercial rooftops across 28 states
- Several of the world's largest solar generation facilities to include:
  - The largest utility scale photovoltaic generation facility to date
  - The largest concentrated solar power plants in the world, two of which have the world's largest thermal energy storage systems



Program	Technology	Loan Guarantee Amount	Jobs (permanent/construction)	Date of agreement	Locations	States
1703						

DOE continues to include in its list of projects a \$105 million loan guarantee it finalized with POET, LLC to build an ethanol plant. According to DOE's website, POET, LLC's loan guarantee will create 40 permanent jobs and 200 construction jobs. However, POET announced on January 23, 2012, that it had decided not to accept the DOE loan guarantee because it had acquired private financing.<sup>174</sup> Despite POET declining DOE's money, as of February 20, 2012, DOE had continued to include it in its job creation numbers (see figure below).

DOE also includes 180 jobs that Abound Solar announced, on February 29, 2012, it will be laying off due to a "retooling" of manufacturing facilities. Abound struggles to compete with Chinese manufacturers that provide a comparable solar panel for a more competitive price. When asked about the layoffs, Abound's CEO, Craig Witsoe, stated, "We hate to have any job loss in the company. But it was the right decision for the business."<sup>175</sup> Of the \$400 million DOE loan guarantee received by Abound, the company had already drawn down \$70 million at the time of the layoffs.

<sup>174</sup> Timothy Gardner, *Ethanol maker POET declines U.S. government loan aid*, REUTERS, Jan. 23, 2012 available at <http://www.reuters.com/article/2012/01/23/us-usa-ethanol-loanaid-idUSTRE80M20K20120123>.

<sup>175</sup> Matthew Mosk, *More Green Energy Layoffs: Colorado Solar Firm Cuts Workforce in Half*, ABC NEWS, Feb. 29, 2012 available at <http://abcnews.go.com/Blotter/abound-solar-lays-off-180-workers/story?id=15816806>.

employee layoff on February 9, 2012, at their Wilmington, Delaware plant, as well as for Beacon Power Corp, which filed for Chapter 11 bankruptcy in October 2011, eliminating 34 construction and permanent jobs.

In addition to misleading the public regarding the number of permanent jobs created by the loan program, DOE obfuscates the number of jobs “created” by combining temporary and permanent jobs. For each listed loan and loan guarantee project, DOE provides a figure for permanent jobs and construction jobs. As loan projects generally require significant construction, these projects predominantly create temporary construction jobs, which terminate upon a project’s completion. For example, solar generation projects require few permanent employees to maintain and operation the facility. In the case of Antelope Valley Solar Ranch, DOE’s posting reflects 350 temporary construction jobs and only 20 permanent jobs. Nonetheless, DOE reports the number of jobs “saved or created” as 370, even though 95% are temporary.

## **V. The Broken Process for Awarding Loan Guarantees**

### **A. External Pressures on the Program**

DOE’s Inspector General explained that the administration of Recovery Act funds proved to be “more challenging than many had originally envisioned,”<sup>176</sup> and specifically asserted that “the loan guarantee program could not always readily demonstrate through documentation how it resolved or mitigated relevant risks prior to granting loan guarantees.”<sup>177</sup> In addition to these concerns, the Committee has also discovered the existence of a revolving door of persons who worked at green energy investment groups only to later be hired by the Administration, which present significant conflicts of interest. These connections raise the specter of undue influence over the loan guarantee process.

### **The Revolving Green Door**

*Nancy Ann DeParle*

Nancy Ann DeParle, the current Deputy Chief of Staff for Policy in the White House, had a financial stake in the success of Granite Reliable, which received \$168.9 million loan from DOE. Prior to joining the White House, DeParle was a Managing Director of multi-billion dollar private equity firm CCMP and she both had a financial interest in and sat on the Board of Directors for Noble Environmental Power, LLC.<sup>178</sup> Noble owned Granite Reliable, a wind

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<sup>176</sup> *The Green Energy Debacle: Where Has All the Taxpayer Money Gone?: Hearing Before the Subcomm. on Regulatory Affairs, Stimulus Oversight, and Government Spending of the H. Comm. on Oversight and Gov’t Reform*, 112th Cong. (2011) (statement of Gregory Friedman, Inspector General, U.S. Dep’t of Energy).

<sup>177</sup> *Id.*

<sup>178</sup> CCMP Capital Company Website available at <http://www.ccmpcapital.com/>.

Steve Westly co-founded the Westly Group, a clean energy venture capital firm that, according to DOE records, has reaped over \$600 million in DOE loans for its portfolio of investments.<sup>189</sup> One recipient company was Tesla Motors,<sup>190</sup> a premium electric vehicle manufacturer to which DOE awarded a \$465 million loan guarantee in January 2010.<sup>191</sup> Westly also sat on Tesla's Board of Directors in the company's early days.<sup>192</sup>

Westly is a personal friend of President Obama and bundled over \$500,000 for his 2008 campaign.<sup>193</sup> Since the election, Westly has visited the White House multiple times for both business and pleasure, and has privately dined with the President in small group fundraising settings.<sup>194</sup>

After President Obama's election, Westly was rumored to have been a primary candidate for Energy Secretary.<sup>195</sup> When Secretary Chu received the appointment, Westly was given the opportunity to serve on an advisory board to the DOE, "a pivotal [sic] advisory committee that made recommendations to the secretary on alternative energy policies."<sup>196</sup> One committee initiative included a recommendation to modify federal rebates for electric cars, a change that would benefit companies such as Westly Group's Tesla.<sup>197</sup> E-mails released by the White House also indicate that Westly's advisory role gave him access to Obama's top advisors and senior White House officials, including advisor Valerie Jarrett.<sup>198</sup>

*David Sandalow*

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<sup>187</sup> Jim McElhatton, *Feds guarantee \$1 billion in new solar loans*, WASH. TIMES, Sept. 28, 2011 available at <http://www.washingtontimes.com/news/2011/sep/28/feds-guarantee-1-billion-in-new-solar-loans/?page=all>.

<sup>188</sup> U.S. Dep't of Energy Loan Programs Office, "1705 Program: Projects" available at [https://ipo.energy.gov/?page\\_id=45](https://ipo.energy.gov/?page_id=45).

<sup>189</sup> Carol D. Leonnig and Joe Stephens, *Venture capitalists play key role in Obama's Energy Department*, WASH. POST, Feb. 14, 2012 available at [http://www.washingtonpost.com/politics/venture-capitalists-play-key-role-in-obamas-energy-department/2011/12/30/gIQA05mER\\_story.html](http://www.washingtonpost.com/politics/venture-capitalists-play-key-role-in-obamas-energy-department/2011/12/30/gIQA05mER_story.html).

<sup>190</sup> The Westly Group Company Website, "Portfolio" available at <http://westlygroup.com/portfolio/>.

<sup>191</sup> U.S. Dep't of Energy Loan Programs Office, Advanced Technology Vehicle Manufacturing Program, "Projects: Tesla Motors" available at <https://ipo.energy.gov/?projects=tesla-motors>.

<sup>192</sup> Stephen Frank, "Steve Westly: the Lynchpin to Funny White House Loans," California Political News and Views (Oct. 17, 2011) available at <http://capoliticalnews.com/2011/10/17/steve-westly-the-lynchpin-to-funny-white-house-loans/>.

<sup>193</sup> *Id.*

<sup>194</sup> *Id.*

<sup>195</sup> *Id.*

<sup>196</sup> Leonnig and Stephens, *supra* note 189.

<sup>197</sup> Frank, *supra* note 192.

<sup>198</sup> Leonnig and Stephens, *supra* note 189.



affairs at DOE, where it acts as Secretary Chu's principal adviser on energy policy as well as coordinates DOE's foreign policy involvement.<sup>199</sup>

Sandalow's ties to the White House date back to the Clinton Administration, during which he worked with President Clinton on environmental issues.<sup>200</sup> After having gained this experience, Sandalow became the influential Chair of the Energy & Climate Working Group of the Clinton Global Initiative.<sup>201</sup> He went on to advise President Obama's presidential campaign in 2008.<sup>202</sup>

Prior to joining the Obama Administration, Sandalow was a senior advisor to Good Energies, Inc., an energy-focused venture capital firm.<sup>203</sup> Good Energies is an investor in SolarReserve,<sup>204</sup> a solar power company that received a \$737 million loan guarantee from DOE in September 2011.<sup>205</sup>

### *Sanjay Wagle*

Sanjay Wagle has most recently served as Renewable Energy Advisor to DOE under Secretary Chu, where he helped oversee the \$11 billion renewable energy program under the Recovery Act.<sup>206</sup> Wagle was an Obama fundraiser for the 2008 presidential campaign, garnering much of his support through his *Clean Tech for Obama* group. Another venture capitalist that has acquired an influential role at DOE, his industry colleagues believed that Wagle, among others, "would help ensure commercial successes from 'the steady flow of dollars coming out of DC."<sup>207</sup>

Prior to arriving in Washington, Wagle was a principal at Vantage Point Venture Partners (Vantage Point), a cleantech venture capital firm whose investments received \$2.4 billion in taxpayer funds.<sup>208</sup> Among them were Brightsource, which received \$1.6 billion for solar generation; Tesla Motors, which received \$465 million for electric car manufacturing; and

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<sup>199</sup> Energy.gov, "About Us: David Sandalow" available at <http://energy.gov/contributors/david-sandalow>; "Who Runs Gov: David Sandalow," WASH. POST available at [http://www.washingtonpost.com/politics/david-sandalow/g1QAR6wHAP\\_topic.html](http://www.washingtonpost.com/politics/david-sandalow/g1QAR6wHAP_topic.html).

<sup>200</sup> "Who Runs Gov: David Sandalow," *supra* note 199.

<sup>201</sup> *Id.*

<sup>202</sup> *Id.*

<sup>203</sup> Press Release, The White House, President Obama Announces More Key Administration Posts (Mar. 20, 2009) available at <http://www.whitehouse.gov/the-press-office/2009/03/20/president-obama-announces-more-key-administration-posts-32009>.

<sup>204</sup> Good Energies Company Website, "Investments" available at <http://www.goodenergies.com/investment/companies>.

<sup>205</sup> U.S. Dep't of Energy Loan Programs Office, 1705 Program, "Projects: SolarReserve, LLC" available at <https://lpo.energy.gov/projects=solarreserve-llc-srescent-dunes>.

<sup>206</sup> Leonnig and Stephens, *supra* note 189; Event Announcement, Full Circle Fund, Environment/Energy Circle Meeting (Nov. 16, 2011) available at <http://www.fullcirclefund.org/event.php?id=838>.

<sup>207</sup> Leonnig and Stephens, *supra* note 189.

<sup>208</sup> *Id.*

moved to DOE shortly after Obama's election, just as the administration embarked on a massive program to stimulate the economy with federal investments in clean-technology firms."<sup>210</sup> His former firm and the companies it invested in, therefore, had a large stake in the financing decisions being made by DOE at the time.<sup>211</sup>

### *Steve Spinner*

Steve Spinner served as an advisor to Secretary Chu from April 2009 to September 2010. In that position, Spinner helped oversee the strategic operations of the clean energy loan guarantee program under the Recovery Act.<sup>212</sup> Spinner was previously an energy-focused venture capitalist and high-tech consultant.<sup>213</sup> He is also an Obama bundler, having raised over \$500,000 for the President in 2008,<sup>214</sup> and over \$200,000 thus far for 2012.<sup>215</sup>

Spinner's wife, Allison Berry Spinner, is a partner at Wilson Sonsini Goodrich & Rosati, the law firm that represented Solyndra on matters related to the DOE loan.<sup>216</sup> According to federal records, the firm received at least \$2.4 million in federal funds for legal fees related to the representation.<sup>217</sup>

White House e-mails released late last year indicate that Spinner was influential in securing the \$528 million loan to now-bankrupt Solyndra. Many of those emails were written just days after he signed an ethics agreement pledging that he would "not participate in any discussion regarding any application involving" his wife's law firm.<sup>218</sup> In one message to a DOE official on August 28, 2009, Spinner wrote, "How hard is this? What is he waiting for? . . . I have OVP and WH breathing down my neck on this."<sup>219</sup> The e-mail went on to demand that the DOE official "walk over there and force [the official working on the Solyndra evaluation] to give [him] an answer."<sup>220</sup> After just being contacted by Solyndra, Spinner inquires in another e-mail, "Any word on OMB? Solyndra's getting nervous."<sup>221</sup> The e-mail correspondence occurring in the final days before the Solyndra loan closed in September 2009 centers heavily on Spinner's

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<sup>209</sup> *Id.*

<sup>210</sup> *Id.*

<sup>211</sup> *Id.*

<sup>212</sup> Matthew Daly, *Steve Spinner, Energy Department Advisor, Pushed Solyndra Loan, Emails Show*, HUFFINGTON POST, Oct. 7, 2011 available at [http://www.huffingtonpost.com/2011/10/07/obama-fundraiser-pushed-s\\_n\\_1000826.html](http://www.huffingtonpost.com/2011/10/07/obama-fundraiser-pushed-s_n_1000826.html).

<sup>213</sup> Matthew Mosk, *Obama Fundraiser Pushed Solyndra Deal From Inside*, ABC NEWS, Oct. 7, 2011 available at <http://abcnews.go.com/Blotter/obama-fundraiser-pushed-solyndra-deal-inside/story?id=14691618#.TzrE9MXQIsI>.

<sup>214</sup> OpenSecrets, *supra* note 182.

<sup>215</sup> BarackObama.com, "Obama For America Victory Fund 2012 Volunteer Fundraisers" available at <http://www.barackobama.com/pages/volunteer-fundraisers-Q2/>.

<sup>216</sup> Mosk, *supra* note 213.

<sup>217</sup> Daly, *supra* note 212.

<sup>218</sup> Mosk, *supra* note 213.

<sup>219</sup> *Id.*

<sup>220</sup> *Id.*

<sup>221</sup> *Id.*

### *Peter Weeks*

Peter Weeks currently serves as Clean Energy Advisor at DOE, a position to which he was appointed in March 2009.<sup>223</sup> To be clear, there is no apparent connection between Mr. Weeks and a project that received a loan from DOE. However, his profound lack of experience in the renewable energy arena before being named as a top DOE advisor causes some concern. Prior to joining the Administration, Weeks's resume consisted primarily of Democratic campaign positions with groups such as Obama for America, Maine Democratic Party, Kerry for President, and Gephardt for President.<sup>224</sup> His prior experience was limited to communications and politics, and includes no record of any energy policy expertise.<sup>225</sup>

According to Weeks, his work at DOE has included helping to “develop due diligence and procurement plans of 200 awards worth over \$10 billion,” as well as “manage two multi-billion dollar energy tax programs.”<sup>226</sup> Additionally, Department e-mails also indicate that Weeks participated in meetings with and had access to high-level officials,<sup>227</sup> including Ron Bloom, giving him the opportunity to participate in decisions and exert some degree of influence.<sup>228</sup> Weeks's position at DOE appears to involve highly technical issues with high stakes and great sensitivity.

It is puzzling how someone without any prior energy, project management, or finance experience would be appointed to a position with responsibilities of this magnitude and particular nature. A private sector institution responsible for due diligence for billions of dollars in loans would never trust someone with only campaign experience to be involved with such technical issues. Given Weeks's consistent history of strong support of the Democratic Party and President Obama, his appointment adds to the perception that many of the Administration's decisions have been driven by politics as opposed to any viable, coherent, energy policy.

## **VI. Concerns Relating to Section 1705 Loan Guarantee Recipients**

### **A. Solopower at CCC+ Setting the Standard for Inappropriate Loan Commitments**

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<sup>222</sup> *Id.*

<sup>223</sup> Peter Weeks, Linked In, Profile available at <http://www.linkedin.com/in/weekspeter>.

<sup>224</sup> *Id.*

<sup>225</sup> *Id.*

<sup>226</sup> *Id.*

<sup>227</sup> E-mail from Peter Weeks, Clean Energy Advisor, U.S. Dep't of Energy, to Brandon Hurlbut, Udai Rohatgi, Peter Gage, Tom Reynolds, and Rachel Tronstein (Feb. 23, 2011, 6:36 PM EST) (on file with author).

<sup>228</sup> *Id.*

accepted a 10 million dollar Oregon taxpayer money in addition to DOE's approval of a 61.7 million loan via the Federal Financing Bank (FFB).<sup>229</sup> They received this federal assistance despite a rather dire prediction of Solopower's prospects by Standard & Poor's (S&P). According to internal documents obtained by the Committee, S&P warned DOE that:

We believe that [average selling price (ASP) per watt] could decline to \$1 or less within the next 1-2 years. From the output provided by the DOE, we concluded that even if SoloPower achieves the efficiency and yield projections of the DOE's base case, an ASP of \$1 or less would severely strain SoloPower's ability to meet its debt service obligations.<sup>230</sup>

In other words, S&P predicted that Solopower will fail to meet its debt obligations. Additionally, the loan's already extremely poor S&P rating of CCC+ appears to depend on lender protections that prevent loan disbursements unless benchmarks are met:

It is to lenders' advantage that the company will not have access to the credit facility until it constructs and operates Line 1A at expected levels of performance. Similarly, the company cannot make the first or subsequent draws unless 30% of installed capacity is under contract to be sold.<sup>231</sup>

According to S&P, these lender protections enable S&P to provide a CCC+.<sup>232</sup> In short, the primary protection against losing \$197 million of taxpayer money is the small chance that Solopower will ever get the money. Without these protections, it can only be presumed that the credit rating would fall to levels reflecting default.

The story of Solopower reflects a very concerning form of waste that creates substantial uncertainty as a byproduct, tying up private investor capital and federal funds until the entity fails (or succeeds) to achieve targeted benchmarks. If Solopower fails to achieve success sufficient to receive DOE funds, then those private investors anticipating the benefit of DOE loans will suffer substantial loss, resources will have been wasted, and employees will be let go after a short time. However, if Solopower meets the requirements for disbursement, then the likelihood for failure and loss to the taxpayer are significant as the base case for the panel manufacturer's production costs does not reflect expectations for sufficiently competitive pricing.

What Solopower lacked in economic value, it made up for in political connections. Unlike other 1705 loan guarantee recipients, Solopower exerted bipartisan political influence on DOE through strong ties to both the Bush and Obama Administrations. Solopower itself built the ties to the Obama Administration. Bruce Khouri, who served on the Board of Directors<sup>233</sup>

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<sup>229</sup> Ted Sickinger, *Solyndra Meltdown a Cautionary Tale for Oregon and SoloPower, its Latest Solar Bet*, The Oregonian, Sept. 27, 2011, available at [http://www.oregonlive.com/business/index.ssf/2011/09/solyndras\\_plicht\\_casts\\_cautionary\\_tale\\_for\\_oregon\\_and\\_solopower\\_its\\_latest\\_solar\\_bet.html](http://www.oregonlive.com/business/index.ssf/2011/09/solyndras_plicht_casts_cautionary_tale_for_oregon_and_solopower_its_latest_solar_bet.html).

<sup>230</sup> Standard & Poors Credit Report, Solopower, Inc., July 11, 2011 (on file with author).

<sup>231</sup> *Id.*

<sup>232</sup> *Id.*

<sup>233</sup> Board of Directors, Solopower, available at <http://www.solopower.com/brucekhouri.html> (last visited Mar. 15, 2012).

Obama Victory Fund in 2008. Lou DiNardo, who served as interim CEO and now serves as Chairman of the Board of Directors, previously worked as a General Partner at VantagePoint Venture Partners where DOE stimulus advisor Sanjay Wagle worked.<sup>237</sup> Solopower, based in San Jose, California, developed an ally in Democratic San Jose Mayor Chuck Reed. Mayor Reed sent letters to DOE and talked with DOE's Jonathan Silver in person to advocate for and attempt to speed up Solopower's loan guarantee.<sup>238</sup>

Hudson Clean Energy Partners, the biggest investor in Solopower,<sup>239</sup> had strong ties to the Bush-era DOE. Craig Cornelius, a member of the Board of Directors at Solopower and Managing Director at Hudson Clean Energy Partners, and Alexander Karsner, a member of the Hudson Clean Energy Partners Advisory Board, both worked in renewable energy positions for DOE during the Bush Administration.<sup>240</sup> Another Managing Partner for Hudson Clean Energy Partners, Neil Auerbach, donated tens of thousands of dollars to Republicans in 2008.<sup>241</sup> Hudson Clean Energy Partners also retained BlueWater Strategies to lobby both branches of Congress and the White House.<sup>242</sup> According to BlueWater Strategies' website, Andrew Lundquist, founder and Managing Partner, "led George W. Bush's transition team for the Department of Energy" and "served as a senior advisor and strategist on energy issues for the President and Vice President."<sup>243</sup>

With its ties to DOE officials in both the previous and current Administrations, Solopower had people on both sides of the political aisle that could use their influence to pressure DOE into issuing and finalizing Solopower's loan guarantee.

## B. Beacon Power: Taxpayers Predictably Lose Millions

Led by CEO F. William Capp – an Obama donor<sup>244</sup> – Beacon Power became the second 1705 loan guarantee recipient to go bankrupt on October 31, 2011.<sup>245</sup> Despite warnings from

<sup>234</sup> Management, Solopower, available at <http://www.solopower.com/management.html> (last visited Mar. 15, 2012).

<sup>235</sup> Federal Election Commission, FEC Form 3X filed by 2008 Obama Victory Fund, at 1650.

<sup>236</sup> Press Release *SoloPower Prepares for Market Entry and Names Lou DiNardo as Interim CEO*, July 8, 2009, available at <http://www.solopower.com/ceov11.html>.

<sup>237</sup> Lou DiNardo, SoloPower, available at <http://www.solopower.com/louinardo.html> (last visited Mar. 15, 2012).

<sup>238</sup> Aaron Glantz, *After Solyndra, a 2<sup>nd</sup> Solar Energy Firm Is Scrutinized*, N.Y. TIMES, Oct. 15, 2011, available at: <http://www.nytimes.com/2011/10/16/us/after-solyndra-a-2nd-solar-energy-firm-is-scrutinized.html?pagewanted=all>.

<sup>239</sup> *Id.*  
<sup>240</sup> Joel Gehrke, *Solopower, a Connected Company with DOE Support*, THE EXAMINER, Nov. 9, 2011, available at <http://campaign2012.washingtonexaminer.com/blogs/solopower-connected-company-doe-support>.

<sup>241</sup> Aaron Glantz, *After Solyndra, a 2<sup>nd</sup> Solar Energy Firm Is Scrutinized*, N.Y. TIMES, Oct. 15, 2011, available at: <http://www.nytimes.com/2011/10/16/us/after-solyndra-a-2nd-solar-energy-firm-is-scrutinized.html?pagewanted=all>.

<sup>242</sup> *Id.*  
<sup>243</sup> Andrew D. Lundquist, available at [http://www.bwstrategies.com/index.php?option=com\\_content&task=view&id=35&Itemid=22](http://www.bwstrategies.com/index.php?option=com_content&task=view&id=35&Itemid=22) (last visited Mar. 15, 2012).

<sup>244</sup> Center for Responsive Politics, available at <http://www.opensecrets.org/indivs/search.php?name=capp&state=MA&zip=&employ=&card=&c2012=Y&c2010=Y&c2008=Y&sort=N&capcode=wsp3w&submit=Submit+your+Donor+Query> (last visited Mar. 15, 2012).

<sup>245</sup> Dawn McCarty, *Beacon Power, Backed by U.S. Loan Guarantees, Files Bankruptcy*, BLOOMBERG, Oct. 31, 2011, available at: <http://www.businessweek.com/news/2011-10-31/beacon-power-backed-by-u-s-loan-guarantees-files-bankruptcy.html>.

Before its demise, Beacon Power relied on funding from the federal government. DOE gave Beacon Power over \$25 million in grants.<sup>246</sup> However, the largest investment came when DOE announced a conditional \$43 million loan guarantee to Beacon Power on July 2, 2009, to create a “20 megawatt flywheel energy storage plant” in Stephentown, New York.<sup>247</sup> In April 2010, S&P evaluated the loan guarantee project and assigned it a dismal CCC+ credit rating, even though the rating incorporated the benefit of the \$43 million loan guarantee.<sup>248</sup> The S&P rating noted that “Beacon is currently an unprofitable start-up” and that “significant exposure to commodity price volatility” could significantly hurt the company.<sup>249</sup> S&P ran two default scenarios, both of which demonstrated that taxpayers would lose millions.<sup>250</sup> DOE conducted its own risk analysis and also assigned Beacon Power a junk CCC+ rating.<sup>251</sup> DOE, however, ignored these warnings and finalized the loan guarantee in August 2010.<sup>252</sup>

As predicted, Beacon Power continued to remain unprofitable and burn through money at a rapid rate. In the weeks leading up to its bankruptcy, Beacon Power began spending hundreds of thousands of dollars on law firms.<sup>253</sup> When Beacon Power went bankrupt, DOE tried to minimize the bad publicity by arguing that it had required “many protections for the taxpayer” in the loan guarantee contract.<sup>254</sup> However, as Beacon Power continues to go through the bankruptcy process, DOE now admits that taxpayers will likely lose millions on this bad investment.<sup>255</sup> DOE could have avoided these losses by taking the warnings of S&P and its own analysis seriously and not risking over \$39 million on a company destined for failure.

### C. Abound Solar: Politics and a Risky Investment Collide

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<sup>246</sup> Steven Mufson and Juliet Eilperin, *Beacon Power Declares Bankruptcy; Second Loan Guarantee Recipient to Falter*, THE WASH. POST, Oct. 31, 2011, available at [http://www.washingtonpost.com/national/health-science/beacon-power-declares-bankruptcy-second-loan-guarantee-recipient-to-falter/2011/10/31/gIQCACNAaaM\\_story.html](http://www.washingtonpost.com/national/health-science/beacon-power-declares-bankruptcy-second-loan-guarantee-recipient-to-falter/2011/10/31/gIQCACNAaaM_story.html).

<sup>247</sup> Press Release, *Obama Administration Offers \$59 Million in conditional Loan Guarantees to Beacon Power and Nordic Windpower, Inc.*, U.S. Dep’t of Energy, July 2, 2009, available at: <https://po.energy.gov/?p=834>. Beacon Power created a wholly owned subsidiary called Stephentown Regulation Services, L.L.C., that ran the DOE funded flywheel energy storage plant and directly received the DOE loan guarantee. When Beacon Power, the parent company, went bankrupt on October 31<sup>st</sup>, it decided to place its subsidiaries in bankruptcy as well.

<sup>248</sup> Letter from Swami Venkataraman, Standard & Poors, to Beacon Power, April 30, 2010 (on file with author).

<sup>249</sup> *Id.*

<sup>250</sup> *Id.*

<sup>251</sup> Letter from David Frantz, Acting Executive Director of Loan Program Office, U.S. DOE, to Hon. Darrell Issa, Chairman, H. Comm. on Oversight and Gov’t Reform, Feb. 14, 2012 (on file with author).

<sup>252</sup> Beacon Power Corporation, U.S. Dep’t of Energy, available at <https://po.energy.gov/?projects=beacon-power-corporation> (last visited Mar. 15, 2012).

<sup>253</sup> Beacon Power Bankruptcy Filings, Provided to Committee by U.S. DOE (on file with author).

<sup>254</sup> Dawn McCarty, *Beacon Power, Backed by U.S. Loan Guarantees, Files Bankruptcy*, BLOOMBERG, Oct. 31, 2011, available at: <http://www.businessweek.com/news/2011-10-31/beacon-power-backed-by-u-s-loan-guarantees-files-bankruptcy.html>.

<sup>255</sup> Letter from David Frantz, Acting Executive Director of Loan Program Office, U.S. DOE, to Hon. Darrell Issa, Chairman, H. Comm. on Oversight and Gov’t Reform, Feb. 14, 2012 (Stating “the DOE stands to recover more than 70 percent of the taxpayer’s investment.” However, even if DOE recovered 80 percent of its investment, taxpayers would still lose millions).

like Solyndra, Abound Solar manufactures solar panels using unproven technology, received a dismal credit rating for its loan guarantee, and has strong Democratic political connections. In fact, DOE finalized Abound Solar's loan in the same month that DOE worked to restructure the failing Solyndra's loan.

In between DOE issuing Abound Solar its \$400 million conditional loan guarantee and finalizing it in December 2010, Fitch Ratings evaluated the project and assigned it a junk credit rating. Fitch gave the project a credit rating of "B" (worse than Solyndra's) with a recovery estimate of only 45%.<sup>256</sup> Despite including the benefit of the DOE loan guarantee in the rating (which likely made the rating more favorable), Fitch labeled the project "highly speculative" and described Abound as lagging in technology relative to its competitors, failing to achieve stated efficiency targets, and expecting that Abound Solar will suffer from increasing commoditization and pricing pressures.<sup>257</sup> In addition to these concerns, Fitch worried that Abound Solar needed to raise more private money to build its new facilities and that, if it could not, Abound Solar could default on its DOE loan.<sup>258</sup>

Recently, Abound Solar began encountering the financial problems that Fitch predicted. In line with Fitch's prediction, Abound Solar has recently struggled to raise additional capital, causing DOE to stop disbursing loan payments to the company.<sup>259</sup> More troubling, Abound Solar announced on March 1<sup>st</sup> that it would stop producing solar panels and would fire 180 employees, even though it has already received \$70 million from DOE.<sup>260</sup> Abound Solar continues to claim publicly that it does not have serious financial problems and will survive;

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<sup>256</sup> Letter from Jason Paraschac, Senior Director, Fitch Ratings, to Steve Abely, Chief Financial Officer, Abound Solar, Nov. 4, 2010 (on file with author).

<sup>257</sup> See *id.* at 4

"Abound's lagging conversion efficiency negatively impacts the panel's installed costs which should negatively impact expected panel [average selling prices]. In addition, Fitch expects further price pressures in this market over the next 3-5 years..."

"Abound has not provided an explanation as to why gains in [solar panel] conversion efficiency have not materialized as expected..."

"[Average selling price] assumptions in the new model are significantly below the prior plan. While this may in part reflect the lower conversion efficiency of [Abound's] solar panel, it is largely a reflection of severe price contractions in the [solar photovoltaic panel] market over the past 24 months."

<sup>258</sup> See *id.* at 7

"Abound must raise additional equity to fund the completion of its planned manufacturing facilities. An inability to access equity markets could force an early default of the loan before construction is complete but also before the loan is fully drawn down."

<sup>259</sup> Yuliya Chernova and Cassandra Sweet, *California Solar Deal Hits a Snag*, THE WALL ST. J., Feb. 11, 2012, available at: <http://online.wsj.com/article/SB10001424052970203646004577214973345400202.html>.

<sup>260</sup> Todd Woody, *Abound Solar, Recipient of \$400 Million Federal Loan Guarantee, Halts Production*, FORBES, Mar. 1, 2012, available at <http://www.forbes.com/sites/toddwoody/2012/03/01/abound-solar-recipient-of-400-million-federal-loan-guarantee-halts-production/>.

Abound Solar has ties to Democratic politicians at the federal level and the state level in Colorado. Bohemian Companies, LLC, founded by Pat Stryker, became an early investor in Abound Solar (at the time AVA Solar) in October, 2008.<sup>261</sup> In addition to the initial funding, the CEO of Bohemian Companies, Joseph Zimlich, has served as both a director<sup>262</sup> and a board member of Abound Solar.<sup>263</sup> Pat Stryker is a major Democratic donor who *Forbes* included on its 2011 list of top liberal spenders.<sup>264</sup> In 2008, Stryker donated \$50,000 and bundled \$87,500 for President Obama's 2009 inauguration, and has given \$35,800 to the 2012 Obama Victory Fund.<sup>265</sup> Abound Solar also developed ties to Congressional Democrats. The company hired then Democratic Congressman Paul Kanjorski's nephew Russell as its vice president for marketing.<sup>266</sup> Abound Solar supported the 2009 cap and trade bill in the House of Representatives and funded an advertisement thanking then-Colorado Democratic Congresswoman Betsy Markey for her vote in favor of the bill.<sup>267</sup>

At the state level, then-Democratic Colorado Governor Bill Ritter strongly supported Abound Solar and its application for a DOE loan guarantee. When Energy Secretary Chu visited Colorado, Governor Ritter handed Secretary Chu a letter urging him to approve Abound Solar's loan guarantee because it would allow the company to expand and hire new workers.<sup>268</sup>

The combination of Abound Solar's junk credit rating, financial problems, and the company's political connections raise serious concerns about whether DOE based the decision to invest \$400 million on merit and whether taxpayers could again lose millions on a dubious solar manufacturing project.

#### **D. Ormat Nevada: Strong Ties to Harry Reid**

Senate Majority Leader Harry Reid announced on September 23, 2011, that DOE finalized a \$350 million partial loan guarantee for three geothermal power plants owned by Ormat Nevada, Inc.<sup>269</sup> Ormat also benefitted from the \$98.5 million loan guarantee to Nevada

<sup>261</sup> Press Release, *AVA Solar Completes \$104 Million Equity Financing*, Abound Solar, Oct., 2008, available at <http://www.abound.com/news/ava-solar-completes-104-million-equity-financing>.

<sup>262</sup> See: U. S. Securities and Exchange Commission Form D, AVA Solar, Inc., Dec. 21, 2010, available at: [http://sec.gov/Archives/edgar/data/1391624/000139162410000003/xslFormDX01/primary\\_doc.xml](http://sec.gov/Archives/edgar/data/1391624/000139162410000003/xslFormDX01/primary_doc.xml).

<sup>263</sup> See The Board of Governors of the Colorado State University System, Colorado State University System, available at <http://csusystem.edu/pages/board.asp>.

<sup>264</sup> Jon Bruner and Clare O'Connor, *Liberal Spenders*, FORBES, Sept. 21, 2011, available at <http://www.forbes.com/forbes/2011/1010/forbes400-11-networks-data-driven-liberal-spenders-bruner-oconnor.html>.

<sup>265</sup> Keenan Steiner, *Another Renewable Energy Loan Recipient Hires Lobbyists, has Fundraising Ties to Obama*, Sunlight Foundation, Nov. 30, 2011, available at <http://reporting.sunlightfoundation.com/2011/another-renewable-grantee-hires-lobbyists-has-fundraising-ties-of/>.

<sup>266</sup> Bill O'Boyle, *Kanjo Nephew Works at firm that Gets Loan*, THE TIMES LEADER, July 13, 2010, available at [http://www.timesleader.com/news/Kanjo\\_nephew\\_works\\_at\\_firm\\_that\\_gets\\_loan\\_07-12-2010.html](http://www.timesleader.com/news/Kanjo_nephew_works_at_firm_that_gets_loan_07-12-2010.html).

<sup>267</sup> Thank You Betsy Markey, The Environmental Defense Action Fund, July 15, 2009, available at <http://www.youtube.com/watch?v=uvBD3XvRi2Y> (last visited Mar. 15, 2012).

<sup>268</sup> Cathy Proctor, *Ritter Backing Colo. Companies Seeking Department of Energy Loan Guarantees*, DENVER BUS. J., May 17, 2009, available at <http://www.bizjournals.com/denver/stories/2009/05/18/story5.html?page=all>.

<sup>269</sup> Press Release, *Reid Announces Finalized Loan Guarantee for Ormat Geothermal Projects*, United States Senator Harry Reid, Sept. 23, 2011, available at [http://reid.senate.gov/newsroom/pr\\_092311\\_geothermalloan.cfm](http://reid.senate.gov/newsroom/pr_092311_geothermalloan.cfm).



Meaningful ties exist between the Senator and Ormat. Two of Ormat's federal lobbyists previously worked for Senator Reid. Ormat's outside lobbyist, Kai Anderson of Cassidy and Associates, served as Senator Reid's Deputy Chief of Staff up until 2005.<sup>271</sup> Anderson lobbies both the House of Representatives and the Senate for Ormat.<sup>272</sup> Anderson has given close to \$90,000 to Democratic candidates and campaign committees over the past three cycles, including thousands to Senator Reid.<sup>273</sup> Ormat's company lobbyist, Director of Policy and Business Development Paul Thomsen, served as a "Regional Representative" for Senator Reid through 2005.<sup>274</sup> Thomsen gave thousands in political contributions to Senator Reid.<sup>275</sup> During Senator Reid's 2010 reelection campaign, Thomsen starred in a campaign ad for Senator Reid to advertise the benefits of Ormat's loan guarantee for Nevada.<sup>276</sup> In addition to Anderson and Thomsen, Ormat's President, Yoram Bronicki, gave thousands in political contributions to Senator Reid.<sup>277</sup> The strong ties between the company and the Senate Majority leader raise questions about whether the DOE acted in the best interests of the American people when it approved the loan guarantee.

### E. Nevada Geothermal's Blue Mountain Project

On June 15, 2010, DOE announced that it would conditionally issue a \$98.5 million partial loan guarantee to Nevada Geothermal Power Company (Nevada Geothermal).<sup>278</sup> This loan enabled Nevada Geothermal to refinance the Blue Mountain Geothermal Project (Blue Mountain) through John Hancock Financial Services (John Hancock). In other words, the DOE

<sup>270</sup> Nevada Geothermal Application for DOE Loan Guarantee, U.S. Dep't of Energy, Nov. 2, 2009 (on file with author).

<sup>271</sup> Eric Lipton and Clifford Krauss, *A U.S.—Backed Geothermal Plant in Nevada Struggles*, N.Y. TIMES, Oct. 2, 2011, available at <http://www.nytimes.com/2011/10/03/business/a-us-backed-geothermal-plant-in-nevada-struggles.html?pagewanted=all>; Kai S. Anderson, Congressional Staffer—Salary Data, Legistorm: Transparency's Sidekick, available at [http://www.legistorm.com/person/Kai\\_S\\_Anderson/201.html](http://www.legistorm.com/person/Kai_S_Anderson/201.html).

<sup>272</sup> See Lobbying Report for Cassidy & Associates, available at <http://soprweb.senate.gov/index.cfm?event=getFilingDetails&filingID=68E4AB5B-FB37-4072-AA8E-187A97BF8E66>.

<sup>273</sup> Center for Responsive Politics, available at <http://www.opensecrets.org/indivs/search.php?capcode=13hhk&name=anderson,%20kai&employ=&cand=&state=DC&zip=&all=n&old=N&c2008=Y&c2010=Y&c2012=Y&sort=N&page=1>.

<sup>274</sup> Eric Lipton and Clifford Krauss, *A U.S.—Backed Geothermal Plant in Nevada Struggles*, N.Y. TIMES, Oct. 2, 2011, available at <http://www.nytimes.com/2011/10/03/business/a-us-backed-geothermal-plant-in-nevada-struggles.html?pagewanted=all>; Paul Thomsen, Congressional Staffer—Salary Data, Legistorm: Transparency's Sidekick, available at [http://www.legistorm.com/person/Paul\\_Thomsen/30414.html](http://www.legistorm.com/person/Paul_Thomsen/30414.html); *Legislative Hearing on H.R. 2170, H.R. 2171, H.R. 2172 and H.R. 2173 Before H. Comm. on Energy and Power*, 112th Cong. (2011) (statement of Paul A. Thomsen, Director of Policy and Business Development, Ormat Technologies, Inc.).

<sup>275</sup> Center for Responsive Politics, available at <http://www.opensecrets.org/indivs/search.php?name=&state=&zip=&employ=ormat&cand=&c2012=Y&c2010=Y&c2008=Y&sort=N&capcode=xbbnq&submit=Submit+your+Donor+Query> (last visited Mar. 15, 2012).

<sup>276</sup> See Geothermal, Harry Reid 2010, June 10, 2010, available at [http://www.youtube.com/watch?v=Xv1\\_AY68BjQ&feature=plcp&context=C305c198UdOEGs1oPDskIRh17yhmpxqikeNWd9-nC0](http://www.youtube.com/watch?v=Xv1_AY68BjQ&feature=plcp&context=C305c198UdOEGs1oPDskIRh17yhmpxqikeNWd9-nC0); *Reid Campaign Releases TV Ads on Clean Energy Jobs*, Friends for Harry Reid, available at [http://www.harryreid.com/index.php/news/release/reid\\_campaign\\_releases\\_tv\\_ads\\_on\\_clean\\_energy\\_jobs/](http://www.harryreid.com/index.php/news/release/reid_campaign_releases_tv_ads_on_clean_energy_jobs/).

<sup>277</sup> *Id.*

<sup>278</sup> Press Release, *Energy Department Offers Conditional Commitment to Support Nevada Geothermal Development with Recovery Act Funds*, U.S. Dep't of Energy, June 15, 2010, available at: <https://po.energy.gov/?p=805>.

financial institution Participation Program ("LTV") loan guarantees, under Section 1705, where private investment groups worked with DOE to provide financing to energy projects.<sup>279</sup> Less than three months after the conditional approval, DOE finalized this loan guarantee, enabling Nevada Geothermal to refinance a loan from TCW through John Hancock.<sup>280</sup>

The loan did not finance any new construction and therefore did not help to create a single new job. DOE's awarding of this loan guarantee raises questions about why DOE was investing significant taxpayer resources in an entity with well-established financial difficulties.

In the press release for the project, Secretary Chu and Senate Majority Leader Harry Reid touted Blue Mountain's potential, with Senator Reid saying that, "I am glad to see economic recovery funding being used to put Nevadans to work on a project that will help us achieve energy independence. Northern Nevada is the Saudi Arabia of geothermal energy and I thank Secretary Chu for recognizing the Silver State's enormous job-creating potential to produce plenty of clean and affordable energy."<sup>281</sup> It was known to him at that time, however, that the loan would not create a single job, but instead simply refinance an existing loan, despite DOE's claim that it would create over 200 jobs.<sup>282</sup>

### *1. Misuse of the DOE Loan Guarantee as a Tool to Bailout Creditors*

Nevada Geothermal has a well documented history of major financial problems. By the time DOE conditionally approved the loan guarantee, Nevada Geothermal had already violated contract terms and debt covenants relating to financing from its primary lender, TCW. According to Nevada Geothermal's financial statements, the firm would not avoid default without the benefit of a loan guarantee.

On October 2, 2011, *The New York Times* ran a story about the financial difficulties of Nevada Geothermal, relying partially on a September 2011 Deloitte & Touche audit of the company which stated "significant doubt about the company's ability to continue as a going concern."<sup>283</sup> In response, DOE dismissed the financial problems of Nevada Geothermal and instead pointed to the alleged financial health of Blue Mountain to argue that the loan guarantee would be repaid.<sup>284</sup> Given that Nevada Geothermal's principal operation is Blue Mountain's Faulkner I Power Plant, such a distinction has questionable merit.<sup>285</sup>

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<sup>279</sup> Press Release, *Department of Energy Issues Loan Guarantee Supported by Recovery Act for Nevada Geothermal Project*, U.S. Dep't of Energy, Sept. 7, 2010, available at <https://lpo.energy.gov/?p=787>.

<sup>280</sup> *Id.*

<sup>281</sup> *Id.*

<sup>282</sup> Loan Programs Office, U.S. Dep't Of Energy, available at [https://lpo.energy.gov/?page\\_id=45](https://lpo.energy.gov/?page_id=45) (last visited Mar. 15, 2012).

<sup>283</sup> Eric Lipton and Clifford Krauss, *A U.S.-Backed Geothermal Plant in Nevada Struggles*, N.Y. TIMES, Oct. 2, 2011, available at <http://www.nytimes.com/2011/10/03/business/a-us-backed-geothermal-plant-in-nevada-struggles.html?pagewanted=all>.

<sup>284</sup> Peter Urban, *DOE Remains Confident in Nevada Geothermal Plant*, LAS VEGAS REVIEW-JOURNAL, Oct. 4, 2011, available at <http://www.lvrj.com/news/doe-remains-confident-in-nevada-geothermal-plant-131035678.html>.

<sup>285</sup> See Nevada Geothermal Power Inc., Consolidated Financial Statements, June 30, 2010 at 6, available at [http://www.nevadageothermal.com/pdf/Annual\\_Financials\\_2010.pdf](http://www.nevadageothermal.com/pdf/Annual_Financials_2010.pdf).

Based on financial disclosures, Nevada Geothermal avoided default as a result of TCW's granting a waiver and extension in anticipation of the John Hancock financing backed by the DOE loan guarantee. The resulting DOE bailout of Nevada Geothermal was planned out in advance, as made clear by Nevada Geothermal's March 31, 2010 Financial Statements:

The Company has engaged John Hancock to provide long term debt up to \$95 million which will be used to pay down the TCW loan and to fund additional drilling. However, this potential John Hancock loan is subject to due diligence and final credit committee approval by John Hancock. There is no certainty that the anticipated debt financing through John Hancock will be obtained. **Failure to obtain the John Hancock loan, or a similar loan from another lender, and/or unsuccessful drilling may result in a default under the terms of the TCW loan agreement. In the event of a default TCW may elect to call the loan and execute upon the security, which would result in a material adverse effect on the Company,** including delay or indefinite postponement of operations and further exploration and development of our projects with the possible loss of such assets.<sup>286</sup> (emphasis added)

The story continued to unfold in Nevada Geothermal's June 30, 2010 Financial Statements, where the plan to bailout their lender, TCW, was successfully executed by DOE:

**As at June 30, 2010, the Company was not in compliance with the terms of the TCW loan.** The non-compliance results from the Company having exceeded the maximum loan amount of \$180 million, and having exceeded the drilling expenditure budget by more than \$3.8 million, as well as some instances of technical non-compliance with other loan terms .... **As a result, for balance sheet purposes, the TCW long-term loan has been classified as a short-term liability.** On November 20, 2009, TCW agreed in principle to waive the non-compliance until March 31, 2010 in return for 4.5 million NGP Inc. warrants exercisable at CAD 1.50 (Note 21(f)). Subsequently, **TCW agreed to extend the agreement in principle, without change, until the John Hancock loan [guaranteed by DOE<sup>287</sup>] closed. The John Hancock loan was closed on**

<sup>286</sup> Nevada Geothermal Power, Inc., Consolidated Financial Statements, Mar. 31, 2010, at 11, available at [http://www.nevadageothermal.com/s/pdf/Q3\\_March\\_31\\_2010.pdf](http://www.nevadageothermal.com/s/pdf/Q3_March_31_2010.pdf).

<sup>287</sup> Nevada Geothermal Power, Inc., Consolidated Financial Statements, June 30, 2010, at 55, available at [http://www.nevadageothermal.com/s/pdf/Annual\\_Financials\\_2010.pdf](http://www.nevadageothermal.com/s/pdf/Annual_Financials_2010.pdf) (Explaining the John Hancock loan guaranteed by DOE: "On October 13, 2009 the Company [Nevada Geothermal] announced that it appointed John Hancock Life Insurance Company ("John Hancock") to be the exclusive debt provider for up to \$95 Million 20-year term loan. Further to the above, on October 7, 2009, the DOE announced its Financial Institutions Partnership Program ("FIPP"), a program supported by the 2009 ARRA. The FIPP program is designed to facilitate long term financing for renewable development projects using commercial technology and applies to up to 80 percent of the loan amount. John Hancock, as Lender for the Blue Mountain 'Faulkner 1' geothermal project, made an application to the DOE for a Loan Guarantee under the FIPP. The loan guarantee was conditionally approved on June 15, 2010, and the loan closed on September 3, 2010. ... At the closing of the John Hancock/DOE loan after paying associated fees and funding reserve accounts for drilling, interest and plant maintenance the Company paid the TCW loan down to approximately \$86.9 million. The Company plans to apply for a second ARRA grant based upon work, to

Confirming this troubling misdirection of taxpayer funds, the Summary of Proposed Terms and Conditions for the Conditional Loan Guarantee, signed by Secretary Chu, provides that the “proceeds of the Guaranteed Obligation will be used for the following: (i) Partial repayment of intercompany loan from HoldCo [Blue Mountain], in the amount of approximately \$0 million;...”<sup>289</sup> This intercompany repayment would ultimately flow to TCW as described above. The remaining amount of the loan went to the posting of cash collateral to NV Energy, Inc., funding a debt service reserve account, funding a maintenance reserve account, funding a drilling expenditure account (which included already incurred costs), and other fees. As these numbers total to around \$98 million, it appears that little, if any, of the loan went to fund new drilling or new construction.<sup>290</sup>

## 2. *This Bailout Appears to Violate the American Recovery and Reinvestment Act of 2009*

Not only does it appear that DOE purposely directed taxpayer funds to a failing enterprise, DOE’s action robbed taxpayers of genuine investment toward renewable energy. This loan guarantee bailed out lenders (TCW) and provided no assurance that TCW would apply the money that it recovered toward the economy or jobs as required by the American Recovery and Reinvestment Act of 2009.

Title XVI, Section 1602 of the American Recovery and Reinvestment Act of 2009, requires that “recipients shall also use grant funds in a manner that maximizes job creation and economic benefit.”<sup>291</sup> Paying off a creditor clearly does not maximize job creation and economic benefits. Rather, it provides an opportunity for private industry to exit an investment, deleverage and transfer the extraordinarily high default risk to taxpayers.

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increase power production, subsequent to the first grant that will be partially funded by the John Hancock/DOE loan.”)

<sup>288</sup> *Id.*

<sup>289</sup> Loan Guarantee LGPO Loan Number: F1001, U.S. Dep’t of Energy, June 15, 2010 at 4 (on file with author).

<sup>290</sup> Nevada Geothermal Power, Inc., Conditional Loan Guarantee, U.S. Dep’t of Energy, Summary of Terms and Conditions at 4 Summary of Terms and Conditions (“Stating “USE OF PROCEEDS: The proceeds of the Guaranteed Obligation will be used for following:

- (i) Partial repayment of intercompany loan from HoldCo in the amount of approximately \$80 million;
- (ii) Funding security requirements under the power purchase agreement signed on August 18, 2006 with NV Energy, f/k/a Nevada Power Company (“PPA”), either by posting cash collateral, cash collateralizing one or more letters of credit, or otherwise in accordance with the PPA in amount of \$3.8 million (the “PPA Credit Support”);
- (iii) Funding of the Debt Service Reserve Account in the amount of approximately \$5.5 million, Major Maintenance Reserve Account in the amount of \$125,000, and Drilling Expenditure Account in the amount of approximately \$8,400,000 (less amounts applied to reimburse the Borrower for Project Costs incurred prior to the Closing Date in connection with the Additional Wells (as defined below));
- (iv) The payment of certain fees and transaction expenses associated with the Guaranteed Obligation which are permitted to be paid with such proceeds under the Solicitation as set forth in Schedule I; and
- (v) Initial funding of the Operating Account with all remaining proceeds of the Guaranteed Obligation.”)

<sup>291</sup> American Recovery and Reinvestment Act of 2009 §1602, Pub. L. No. 111-5.

3. Given the "Pari Passu" Deal Terms and the Required Consent of all Lenders to Reorder Priority, the Terms of the DOE Loan Guarantee Appear to Violate the Requirement of Superiority under Title XVII, Section 1702(g)(2)(B)

The Summary of Terms and Conditions in the Conditional Loan Guarantee signed by Secretary Chu that relates to the Blue Mountain loan guarantee, at page 8, provides for a pari passu and pro-rata right of payment for senior creditors.<sup>292</sup> This means that the unguaranteed senior lender, John Hancock, stands equal to taxpayers in terms of recovering a share of their loss in the event of default. The Summary of Terms also requires the consent of all Lenders in the event that DOE seeks to "change to the priority of payment in the payment waterfall."<sup>293</sup> The combination of the pari passu credit terms, which ranked John Hancock as an equal to taxpayers, with DOE's inability to reorder priority in case of a default, disables the ability of DOE to rely on its superiority as required under Section 1702(g)(2)(B).

#### 4. Nevada Geothermal's Continuing Problems

Since DOE finalized Nevada Geothermal's loan guarantee in September 2010, the project continues to have operational and financial problems. The project has an ongoing problem with electrical fires. In January 2010 (before the loan guarantee), part of the Blue Mountain plant was damaged after electrical cables were placed too close together and burned; a significant amount of cable was destroyed and had to be replaced.<sup>294</sup> In October 2011, another fire occurred because the seal on one of the pumps failed, causing part of the plant to go offline for major repairs.<sup>295</sup> Operational problems at the Blue Mountain project resulted in revenue being less than estimated the last four months of 2011.<sup>296</sup> Additionally, in November 2011, one of Nevada Geothermal's major creditors considered placing Nevada Geothermal in default because of a late payment,<sup>297</sup> and Nevada Geothermal lost \$3.9 million in the fourth quarter.<sup>298</sup>

### F. Granite Reliable

In September 2011, Granite Reliable Power, LLC, a wind generation company owned by the Brookfield family of companies, received a partial guarantee for \$168.9 million loan from DOE.<sup>299</sup> The funds will finance Granite Reliable Power Windpark, a wind generation project in

<sup>292</sup> Nevada Geothermal Power, Inc., Conditional Loan Guarantee, U.S. Dep't of Energy, Summary of Terms and Conditions at 8.

<sup>293</sup> *Id.* at 25-6.

<sup>294</sup> Email from Max Walenciak, Nevada Geothermal, to Brian Fairbank, Nevada Geothermal, Mar. 1, 2010 (on file with author).

<sup>295</sup> Email from Max Walenciak, Nevada Geothermal, to Thomas Pollog, DOE, Nov. 22, 2011 (on file with author).

<sup>296</sup> Operations Budget Reviews, Nevada Geothermal, Sept.-Dec. 2011 (on file with author).

<sup>297</sup> Email from Andrew Studley, Nevada Geothermal, Nov. 1, 2011 (on file with author).

<sup>298</sup> *Nevada Geothermal Power Reports Dec Quarter Results*, Nasdaq, Feb. 28, 2012, available at <http://community.nasdaq.com/News/2012-02/nevada-geothermal-power-reports-dec-quarter-results.aspx?storyid=123602>.

<sup>299</sup> DOE Loan Programs Office, Loan Guarantee Program Projects, available at <https://lpo.energy.gov/?projects=granite-reliable>.

company's primary debt obligated needed to obtain a loan subsidy in order to secure private financing.<sup>301</sup> A deeper look into the players and circumstances surrounding this decision suggest that politics may have led DOE to approve the loan.

Until 2011, Granite Reliable was owned and controlled by Noble Environmental Power, Inc. Noble sold that 75% interest to BAIF Granite Holdings, Inc., just prior to the project's loan approval in September 2011.<sup>302</sup> BAIF Granite Holdings (BAIF) was created by Brookfield Renewable Power, a subsidiary of the \$3.2 billion company Brookfield Asset Management (BAM).<sup>303</sup> Brookfield Renewable Power financed the creation of BAIF from its Brookfield Americas Infrastructure Fund, which reportedly has assets totaling \$2.7 billion.<sup>304</sup> The remaining minority interest is owned by Freshet Wind Energy, LLC, which partnered with BAIF on the project.<sup>305</sup> Given the solid financial background from which Granite Reliable was formed, it is unclear why DOE determined that the company needed a \$168.9 million loan guarantee.

### *1. Brookfield's Company Background: Board Members, Holdings, and Investors*

One reason DOE determined a loan guarantee may have been necessary may lie in the inner workings of the BAM family of companies and the companies' strong Democratic ties. BAM owns BAIF, which owns Granite Reliable, as well as Brookfield Office Properties (BOP). BOP's Board of Directors is chaired by John Zuccotti, the man for whom New York City's Zuccotti Park is named, and includes Diana Taylor, New York City Mayor Michael Bloomberg's long-time girlfriend.<sup>306</sup> George Soros and Martin J. Whitman, both prominent Democratic donors, are both heavily invested in Brookfield.<sup>307</sup> Moreover, Heather Podesta, sister-in-law of Obama's influential White House transition director John Podesta, and the Podesta Group served as the lobbyists for BAIF.<sup>308</sup>

<sup>300</sup> Press Release, *Department of Energy Finalizes Loan Guarantee of Nearly \$170 Million to Granite Reliable Power*, U.S. Dep't of Energy, available at <http://energy.gov/articles/department-energy-finalizes-loan-guarantee-nearly-170-million-granite-reliable-power>.

<sup>301</sup> See Opinion, *A NH Solyndra? Wind Farm Gets Fed Loan*, UNION LEADER, Sept. 28, 2011.

<sup>302</sup> Press Release, *Noble Environmental Power Signs Agreement for the Sale of its Interest in its New Hampshire Wind Project*, Noble Power, Dec. 7, 2010, available at [http://www.noblepower.com/pressroom/documents/10-12-7\\_NEP-SignsAgreementForSaleOfNHWindProject\\_Final.pdf](http://www.noblepower.com/pressroom/documents/10-12-7_NEP-SignsAgreementForSaleOfNHWindProject_Final.pdf); Ehren Gossens, *Brookfield Picks RMT to Build New Hampshire's Largest Wind Farm*, Bloomberg, Feb. 12, 2010, available at <http://www.bloomberg.com/news/2011-02-23/brookfield-renewable-picks-rmt-to-build-new-hampshire-s-largest-wind-farm.html>.

<sup>303</sup> Opinion, *A NH Solyndra? Wind Farm Gets Fed Loan*, UNION LEADER, Sept. 28, 2011.

<sup>304</sup> *Id.*

<sup>305</sup> Granite Reliable Power Wind Project, Brookfield Renewable Power, available at [http://brookfieldrenewable.com/content/united\\_states/granite\\_reliable\\_power\\_wind\\_project-30823.html](http://brookfieldrenewable.com/content/united_states/granite_reliable_power_wind_project-30823.html) (last visited Mar. 15, 2012).

<sup>306</sup> Board of Directors, Brookfield Office Properties, available at [http://brookfieldofficeproperties.com/content/corporate\\_governance/board\\_of\\_directors-16350.html?Page=2](http://brookfieldofficeproperties.com/content/corporate_governance/board_of_directors-16350.html?Page=2) (last visited Mar. 15, 2012).

<sup>307</sup> Steve MacDonald, *NH Wind Farm Project Comes with Inside Deal Making?*, Oct. 15, 2011, available at <http://www.allrightsmagazine.com/environment/nh-wind-farm-project-comes-with-inside-deal-making-11752/#more-11752>.

<sup>308</sup> Aaron Klein, *Look Whose Sister-in-law Just Secured \$135.8 Million Energy Loan*, Oct. 12, 2011, available at <http://kleinonline.wnd.com/2011/10/12/look-who%E2%80%99s-sister-in-law-just-secured-135-8-million-energy-loan-latest-%E2%80%98green%E2%80%99-company-with-deep-white-house-ties-to-get-massive-public-funds/>.

As described in Section V, Part B of this report, Nancy DeParle suffered a conflict of interest during her time in the Administration. As indicated on her financial disclosure forms, prior to joining the White House, Nancy DeParle was one of five managing directors of a multi-billion dollar private equity firm CCMP<sup>309</sup> While with CCMP, she sat on the board of directors for Noble Environmental Power, LLC, one of CCMP's investments.<sup>310</sup> She served as a board member of Noble for about two years and quit in March of 2009.<sup>311</sup> Noble owned Granite Reliable.

Coinciding with her tenure at the White House, DOE considered a loan guarantee for Granite Reliable. The Granite Reliable project was well underway by late 2009.<sup>312</sup> Noble then sold Granite Reliable in December 2010 to Brookfield Asset Management, just 6 months prior to the conditional approval of the DOE loan guarantee and deep into the application process.<sup>313</sup> The DOE loan guarantee was conditionally approved in June 2011 and finalized in September 2011.

The ultimate approval of the DOE loan guarantee that followed the sale of Granite Reliable is tainted by DeParle's position within the White House and her financial interest in Noble. DeParle's position in the Administration could have been used to influence the successful sale by ensuring or increasing the likelihood of ultimate approval of the DOE loan guarantee. The loan guarantee would increase the value of the Granite Reliable, improving the sale price and, thereby, improving the investment of DeParle's son.

### **G. Record Hill Wind: DOE Uses the First Solar Precedent to Speed Through Another Questionably "Innovative" Technology**

DOE relied on the First Solar precedent to approve Record Hill Wind's \$102 million loan guarantee project as "innovative," despite the project using commercial technology. DOE knew that the Record Hill project did not use significantly innovative technology. The Standard & Poor's credit rating for the project that DOE received clearly indicates the commercial (and non-innovative) nature of the project:

Record Hill has entered into a Turbine Supply Agreement for the shipment of 22 Siemens 93SWT[Siemens Wind Turbine] 2.3MW wind

<sup>309</sup> CCMP Capital Advisors, L.L.P., *available at* <http://www.ccmpecapital.com/> (last visited Mar. 15, 2012).

<sup>310</sup> See Noble Environmental Power, L.L.C., U.S. Securities and Exchange Commission, Form S-1, May 8, 2008, *available at* <http://www.nasdaq.com/markets/ipo/filing.ashx?filingid=5635802>.

<sup>311</sup> Company Overview of CCMP Capital Advisors, L.L.C., *Bloomberg Businessweek*, *available at* <http://investing.businessweek.com/research/stocks/private/person.asp?personId=1090061&privcapId=28674590&previousCapId=35644&previousTitle=DaVita%20Inc>.

<sup>312</sup> Federal Aviation Admin. Determination of No Hazard to Air Navigation, Nov. 18, 2009 (on file with author); Engineering, Procurement and Construction Agreement between RMT, Inc. and Granite Reliable Power, L.L.C., Apr. 26, 2010 (on file with author).

<sup>313</sup> Press Release, *Noble Environmental Power Signs Agreement for the Sale of its Interest in its New Hampshire Wind Project*, Noble Environmental Power, Dec. 7, 2010, *available at* [http://www.noblepower.com/pressroom/documents/10-12-7\\_NEP\\_SignsAgreementForSaleOfNHWindProject\\_Final.pdf](http://www.noblepower.com/pressroom/documents/10-12-7_NEP_SignsAgreementForSaleOfNHWindProject_Final.pdf).

...Due to harsh winter conditions in Maine, the project plans to install a cold weather package on all turbines, which will keep the turbines running in cold temperatures. **Siemens' cold weather packages are currently in use on turbines in Canada, Norway, and other cold areas,** and have performed to expectations. Along with a cold weather package, the project expects to make use of Siemens proprietary Turbine Load Control (TLC) technology...**Given that the technology is software-based, however, and is not considered a fundamental component in the performance of the turbine,** the TLC could be shuttered without damaging the turbine if it does not work properly. In this case, the turbines would continue to run similar to Siemens' existing fleet.<sup>314</sup> (emphasis added)

Much like First Solar's "innovative" projects, the Record Hill Wind project attempted to categorize minor modifications to existing commercial technology as "innovativeness." DOE eventually agreed with Record Hill Wind's questionable reasoning. On December 14, 2010, Todd Shrader of DOE sent an email to several DOE personnel with the subject line "Eligibility Interpretation (sic)" that read:

An eligibility issue arose during the technical evaluation of Ocotillo Express (FIPP—F1033). This project is utilizing Siemens SWG-2.3-101 wind turbine generators. It is claimed to be a commercial technology based on the wide spread use (including in this country) of the closely related Siemens SWG-2.3-93 turbines, which are essentially the same just with smaller blade lengths (101 feet vs. 93 feet). Without looking deeper into the design differences (which will occur at due diligence), I concur with the applicant that this is a commercial technology. However, for Record Hill, which is using SWG-2.3-93 turbines, it is claimed that this is a new and innovative technology, partially based on no use over 5 years in the US for these turbines. I also believe there were some differences in internal controls. **However, the 101 and 93 units are essentially the same technology. Can the same technology be innovative under the Renewables Solicitation and Commercial under the FIPP's solicitation?**<sup>315</sup> (emphasis added)

Later in the day, Ruth Ku of DOE replied that the same question had occurred before with a different project and that the "project was asked whether it could obtain alternative financing in the private market... the project was able to get alternative financing (e.g., with John Hancock) and I think the recommendation was for it to move its application to FIPP... don't know where Record Hill is in its process for it to be



replied, "Record hill is well into due diligence with [D]avid [S]chmitzer. No reason to transfer at all. In terms of precedent of innovative and not **look no further than first solar where there [sic] panels are both innovative and noninnovative given the inverter used.**"<sup>317</sup> (emphasis added)

Ruth Ku agreed with Douglas Schultz but worried that submitting two project applications using the same technology as innovative and not innovative could cause a "policy issue for OMB." She wrote back to Douglas Schultz stating "[I]t cld [sic] be a policy issue for OMB if record hill followed Ocotillo. Think it's probably less of an issue if record hill was first then Ocotillo."<sup>318</sup> After scheming about how to get the two applications through OMB without problems, DOE allowed the Record Hill Wind project to continue as an "innovative" project.<sup>319</sup> DOE would eventually finalize a \$102 million loan guarantee (guaranteed 100% by the federal government) in August 2011.

#### **H. Genesis Solar: An Expedited Approval Process Now Threatens Entire Project**

On August 20, 2011, DOE awarded NextEra Energy Resources LLC (NextEra) a partial loan guarantee for \$825 million to fund the Genesis Solar Energy Project (Genesis). A planned 250-megawatt plant to lie on 1,950 acres of federal land located outside Blythe, California, Genesis plans to power more than 187,500 homes by 2014.<sup>320</sup> Standard & Poor's gave NextEra a BBB+ rating, highly dependent on a long term Power Purchasing Agreement (PPA) with Pacific Gas & Electric (PG&E), and a Construction Completion Agreement with NECH, noting that if either's credit ratings were downgraded in the interim, it would hurt Genesis's rating as well.<sup>321</sup> S&P emphasizes that the loan guarantee would only support the project for up to a six month delay. Additional delays would restrict Genesis's ability to meet the PPA and jeopardize the success of the project.<sup>322</sup>

An accelerated state and federal site approval process allowed the project to gain DOE approval, but the hasty work may now endanger the entire project. Genesis's original site resided on a section of Ford Dry Lake, which archeologists suspected contained ancient cremation sites.<sup>323</sup> To minimize delays, NextEra moved the project two miles north to a new site, still on federal land. DOE's application process requires extensive vetting of project sites for a variety of environmental factors. However, to expedite site approval, NextEra opted for a less thorough process developed by the state energy commission (The Commission) and the Bureau of Land Management (BLM) that would "streamline the time necessary to produce the

<sup>316</sup> Email from Ruth Ku, U.S. Dep't of Energy, Dec. 14, 2010 (on file with author).

<sup>317</sup> Email from Douglas Schultz, U.S. Dep't of Energy, Dec. 14, 2010 (on file with author).

<sup>318</sup> Email from Ruth Ku, U.S. Dep't of Energy, Dec. 14, 2010 (on file with author).

<sup>319</sup> DOE did not finalize a loan guarantee for the Ocotillo Express project.

<sup>320</sup> Louis Sahagun, *Problems Cast Shadows of Doubt on Solar Project*, L.A. TIMES, Feb. 11, 2012, available at <http://articles.latimes.com/2012/feb/11/local/la-me-solar-foxes-20120211>.

<sup>321</sup> Genesis Solar LLC, Standard & Poor's, July 21, 2011 'BBB+' Rating (on file with author).

<sup>322</sup> *Id.*

<sup>323</sup> *Id.*

The Commission did warn Genesis of the potential consequences associated with the site approval process in August 2011, stating, "This approach however has the real potential to result in...delays in construction start-up, increase in requisite construction monitoring, and cost."<sup>325</sup> As part of the process, NextEra dug 500 test pits 3feet deep and found no artifacts, allowing them to proceed with construction.

After DOE granted final approval to the project and construction began, grading equipment unearthed grinding stones lying on a bed of charcoal, indicating possible evidence of human settlements. This discovery caused work to halt on 400 acres of the Genesis site while the company and regulatory agencies discuss various options. The hasty approval process that prevented the earlier discovery has compromised the construction schedule and put Genesis in serious jeopardy of not satisfying its obligations under the PPA. NextEra has admitted that these delays may have serious consequences for the project; according to a NextEra Senior Vice President, "the project could become uneconomical."<sup>326</sup>

In addition to these problems, the new site also encroached on the habitat of the endangered Kit Foxes, native to the California desert. NextEra used "passive hazing" techniques approved by state and federal biologists to remove the foxes prior to site grading of the area. Essentially, NextEra sprayed coyote urine around dens and removed food sources. Two dead foxes were found on site in October 2011, which died from Distemper, a disease similar to Rabies spread by bodily fluids, never previously recorded in Kit Foxes. Ultimately, seven foxes died from NextEra's removal process.

### **I. General Electric's Broad Access to Loan Guarantees: Caithness Shepherds Flat, 1366 Technologies and Kansas City Southern Railway Company**

General Electric (GE) sponsored a project called Caithness Shepherds Flat (Caithness), and also supplied the project with 338 wind-turbines. High level Administration officials expressed concern that the project was receiving an excessive amount of public subsidy, and that private parties did not have sufficient "skin in the game." In a Memorandum for the President ("Summers' Memo") dated October 25, 2010, Carol Browner, Ron Klan and Larry Summers revealed concerns regarding excessive over-subsidization of the Caithness project, where grants, tax credits and loan guarantees provided 65% of the funding for the project. Because of the excessive subsidy, the memorandum reveals expectations of a 30% return to the

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<sup>324</sup> Letter from Mike Monasmith, Project Manager, California Energy Commission, to Scott Bussa, Director, NextEra Energy Resources, LLC, Dec. 3, 2009, available at [http://www.energy.ca.gov/sitingcases/genesis\\_solar/documents/2009-12-03\\_New\\_Alternate\\_Approach\\_TN-54332.pdf](http://www.energy.ca.gov/sitingcases/genesis_solar/documents/2009-12-03_New_Alternate_Approach_TN-54332.pdf).

<sup>325</sup> *Id.*

<sup>326</sup> Louis Sahagun, *Problems Cast Shadows of Doubt on Solar Project*, L.A. TIMES, Feb. 11, 2012, available at <http://articles.latimes.com/2012/feb/11/local/la-me-solar-foxes-20120211>.

## Appendix: Shepherds Flat Loan Guarantee

The Shepherds Flat loan guarantee illustrates some of the economic and public policy issues raised by OMB and Treasury. Shepherds Flat is an 845-megawatt wind farm proposed for Oregon. This \$1.9 billion project would consist of 338 GE wind turbines manufactured in South Carolina and Florida and, upon completion; it would represent the largest wind farm in the country. The sponsor's equity is about 11% of the project costs, and would generate an estimated return on equity of 30%.

- Double dipping: The total government subsidies are about \$1.2 billion.

Subsidy Type	Approximate Amount (millions)
Federal 1603 grant (equal to 30% investment tax credit)	\$500
State tax credits	\$18
Accelerated depreciation on Federal and State taxes	\$200
Value of loan guarantee	\$300
Premium paid for power from state renewable electricity standard	\$220
Total	\$1,238

- Skin in the game: The government would provide a significant subsidy (65+%), while the sponsor would provide little skin in the game (equity about 10%).
- Non-incremental investment: This project would likely move without the loan guarantee. The economics are favorable for wind investment given tax credits and state renewable energy standards. GE signaled through Hill staff that it considered going to the private market for financing out of frustration with the review process. The return on equity is high (30%) because of tax credits, grants, and selling power at above-market rates, which suggests that the alternative of private financing would not make the project financially non-viable.
- Carbon reduction benefits: If this wind power displaced power generated from sources with the average California carbon intensity, it would result in about 18 million fewer tons of CO2 emissions through 2035. Carbon reductions would have to be valued at nearly \$130 per ton CO2 for the climate benefits to equal the subsidies (more than 6 times the primary estimate used by the government in evaluating rules).

Four months after DOE approved the Caithness loan, President Obama named Jeff Immelt, the CEO of GE, as the Chairman (Job Czar) of the President's Council on Jobs and Competitiveness (Jobs Council). As the Chairman of the Job Council, Immelt had direct access to President Obama.<sup>327</sup> Since Immelt's appointment as Job Czar, two additional GE related

<sup>327</sup> About the Council, President's Council on Jobs and Competitiveness, available at <http://www.whitehouse.gov/administration/advisory-boards/jobs-council/about> (Stating it shall, "Report directly to

inspired in part by party GE, received a direct \$150 million loan commitment from DOE for its solar manufacturing plant.<sup>329</sup> Second, on February 22, 2012, the Federal Railroad Administration (FRA) loaned \$54.6 million to Kansas City Southern Railway Company (KCSR) under the Federal Railroad Administration-administered Railroad Rehabilitation and Improvement Financing (RRIF) Program to purchase thirty new General Electric ES44AC diesel-electric locomotives.<sup>330</sup>

Regarding KCSR's purchase of GE locomotives, the railroad's filings with the Securities and Exchange Commission (SEC) reveal a twenty-five year, \$54.6 million loan at 2.96%.<sup>331</sup> KCSR received this loan despite reporting strong earnings. For the year 2011, KCSR reported operating income of \$612 million on \$2.1 billion in revenues, a 26% increase over the prior year – not the picture of a company in need of assistance in the form of a \$54.6 million loan.<sup>332</sup> As a result of this subsidized loan, the highly profitable KCSR gained a competitive advantage over its freight rail competitors.

## VII. Breakdown of Problems with ATVM Loans

Each of the "Big Three" auto manufacturers, Ford, General Motors, and Chrysler, along with Nissan, applied for loans under the ATVM Program. Ford and Nissan are the only major manufacturers that received an ATVM loan. The companies received \$5.9 billion and \$1.4 billion respectively.<sup>333</sup> Both General Motors and Chrysler withdrew their applications after waiting over a year for responses from DOE.<sup>334</sup> Initially, financial viability was the primary roadblock that kept GM and Chrysler out of the running for Department of Energy loans.<sup>335</sup> Some speculated that the entire program had been put on hold in order to give these two manufactures time to prove their financial viability and qualify for loans that would have drained

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*the President on the design, implementation, and evaluation of policies to promote the growth of the American economy...*)

<sup>328</sup> See Sustainable Business, *GE Backs 1366 Technologies*, Mar. 4, 2011, available at <http://www.mattemnetwork.com/2011/3/ge-backs-1366-technologies.cfm>.

<sup>329</sup> Press Release, *Energy Department Finalizes \$150 Million Loan Guarantee to 1366 Technologies that Could Drive Down Manufacturing Costs and Make American Solar More Competitive*, U.S. Dep't of Energy, Sept. 8, 2011, available at <http://energy.gov/articles/energy-department-finalizes-150-million-loan-guarantee-1366-technologies-could-drive-down>.

<sup>330</sup> William Vantuono, *RRIF Loan Will Finance 30 KCSR Locomotives* Railway Age, Feb. 22, 2012, available at <http://www.railwayage.com/index.php/mechanical/locomotives/trif-loan-will-finance-30-kesr-locomotives.html>.

<sup>331</sup> Kansas City Southern Railway Company, Form 8-K Report, Feb. 22, 2012 (on file with author)

<sup>332</sup> Kansas City Southern Railway Company, Form 8-K Report, Jan. 23, 2012 (on file with author).

<sup>333</sup> U.S. Dep't of Energy Loan Programs Office, Description of ATVM program, available at [https://lpo.energy.gov/?page\\_id=43](https://lpo.energy.gov/?page_id=43).

<sup>334</sup> Benson Kong, *GM Withdraws DOE Loan Application, Speeds Up Volt Production*, Motor Trend, Jan. 27, 2011, available at <http://wot.motortrend.com/gm-withdraws-doe-loan-application-speeds-volt-production-26459.html>;

Press Release, *Chrysler Group Statement Regarding Department of Energy Advanced Technology Vehicles Manufacturing Loan Application*, Feb. 16, 2012, available at <http://www.wkrm.com/story/16953247/chrysler-group-statement-regarding-department-of-energy-advanced-technology-vehicles-manufacturing-loan-application>.

<sup>335</sup> Josie Garthwaite, *GM, Chrysler's Green Car Loan Bids Inch Forward, Face Upstart Competition*, May 14, 2012, available at <http://gigaom.com/cleantech/gm-chryslers-green-car-loan-bids-inch-forward-face-upstart-competition/>.

Vehicle Production Group, receiving \$529 million, \$465 million, and \$50 million, respectively.<sup>337</sup> To date, the ATVM Program has loaned \$8.339 billion to five auto manufacturers for the production of ATVs.

It is unclear whether DOE has a set of objective standards by which it judges the relative merit of applicants. Based on materials obtained by the Committee, it appears that DOE applies inconsistent standards to each applicant, leaving innovative car companies in a state of perpetual uncertainty over how they will be treated under the process. These concerns are apparently shared by Senator Diane Feinstein, who wrote DOE complaining that, "On multiple occasions, the department has missed internal deadlines for initial decisions, term negotiations, final decisions and loan closure."<sup>338</sup> This haphazard administration of the ATVM Program creates confusion in the advanced technology vehicle market and may have actually hurt President Obama's goal of fostering a new generation of vehicles.<sup>339</sup>

Despite an apparent lack of discernible objective criteria to judge the relative merit of loan applicants, it does appear that ties to the Obama Administration were important for those companies securing an ATVM loan early on in the process. Both Ford Motor Co. and Nissan were heavily engaged in negotiations with the Administration over fuel economy standards for model years 2012- 2016 at the time DOE was considering their applications.<sup>340</sup> Both companies eventually expressed publically their support for these standards, which the Administration described as the "Historic Agreement."<sup>341</sup> In addition to this curious timing associated with the approval of Ford and Nissan's loan, the other recipients each enjoyed close ties to the Administration. For example, Fisker was backed by Kleiner, Perkins, Caufield & Byers, which has significant ties to the Administration.<sup>342</sup> One of the senior partners at Kliner Perkins is former Vice President Al Gore. Another partner, John Doerr, serves on Obama's Council on Jobs and Competitiveness.<sup>343</sup> In the case of Tesla, board member Steve Westly was a major Obama campaign bundler and a frontrunner for the position of Secretary of Energy.<sup>344</sup>

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<sup>336</sup> Edward Niedermeyer, *GM Withdraws \$14.4b Government Loan Request*, Jan. 27, 2011, available at <http://www.thetruthaboutcars.com/2011/01/gm-withdraws-14-4b-government-loan-request/>.

<sup>337</sup> U.S. Dep't of Energy Loan Programs Office, Description of ATVM program, available at [https://ipo.energy.gov/?page\\_id=43](https://ipo.energy.gov/?page_id=43).

<sup>338</sup> Edward Niedermeyer, *Government Retooling Loans: On Hold for Gm and Chrysler?*, Jan. 24, 2011, available at <http://www.thetruthaboutcars.com/2011/01/government-retooling-loans-on-hold-for-gm-and-chrysler/>.

<sup>339</sup> Letter from Rubeen Munger, Chairman and CEO Bright Automotive, and Mike Donoughe, Chief Operating Officer Bright Automotive, to Hon. Steven Chu, Secretary, DOE, Feb. 28, 2012.

<sup>340</sup> Mike Allen & Eamon Javers, *Obama Announces New Fuel Standards*, POLITICO, May 18, 2009, available at <http://www.politico.com/news/stories/0509/22650.html>.

<sup>341</sup> *Id.*

<sup>342</sup> Al Gore Investment Partner, available at <http://www.kpcb.com/partner/al-gore> (last visited Mar. 15, 2012).

<sup>343</sup> President's Council on Jobs and Competitiveness, available at <http://www.whitehouse.gov/administration/advisory-boards/jobs-council/members/doerr> (last visited Mar. 15, 2012).

<sup>344</sup> Lindsay Riddell, *Westly 'Honored to be Considered' for Obama Cabinet*, Sacramento Bus. J., Nov. 13, 2008, available at <http://www.bizjournals.com/sacramento/stories/2008/11/10/daily62.html>; Ronnie Greene, et al., *Energy's Risky \$1 Billion Bet on Two Politically-connected Electric Car Builders*, iWatch News, available at <http://www.iwatchnews.org/2011/10/20/7152/energys-risky-1-billion-bet-two-politically-connected-electric-car-builders>.

There has been very little activity in the ATVM loan program over the last three years, as DOE has only approved one loan since April 2010. Moreover, the Committee has yet to receive a response from DOE to its February 10, 2012, letter asking for additional information about the loan application process. Even so, the Committee has gleaned some information about the companies that DOE has considered for ATVM loans. These stories reveal the haphazard manner in which DOE is administering the program and how ever-changing goal posts and broken promises have promoted the misallocation of scarce resources and pushed some innovative companies into bankruptcy.

### *Aptera*

Aptera first applied for an ATVM loan in December 2008, looking for money to fund the production of the Aptera 2e, a three-wheeled vehicle capable of nearly 200 miles per gallon.<sup>345</sup> Although DOE rejected Aptera's original application for a loan because a three-wheeled vehicle did not meet the criteria of a Section 136 loan, Congress amended the program in October 2009, and Aptera resubmitted its application in January 2010 for both the 2e and a four-wheeled vehicle.<sup>346</sup> By late 2010, DOE determined that the 2e would not be able to pay back capital costs.<sup>347</sup> Accordingly, Aptera shifted its focus to the 4e, a four door electric sedan, that DOE believed would be more suited to an ATVM loan program.<sup>348</sup> After numerous negotiations with DOE, in September 2011, Aptera received a letter from DOE offering them a conditional loan commitment of \$150 million if the company was able to raise \$80 million privately.<sup>349</sup>

Aptera shut down on December 2, 2011, citing the inability to raise additional private capital, having exhausted a bridge loan that was supposed to last through the time DOE made a final decision on the loan.<sup>350</sup> At this point, Aptera's investors had funneled \$40 million of their own money into the project. Former Aptera CEO Paul Wilbur and former marketing Vice President Marques McCammon have publically asserted that the prolonged timeframe spent engaging with DOE to secure a loan ultimately consumed their cash reserves.<sup>351</sup> Wilbur stated that a "bright shiny object disease" characterized the ATVM Program and suggested in retrospect, "We should have raised the money ourselves rather than relying on DOE."<sup>352</sup> However, the loans given to Fisker and Tesla gave Aptera hope that DOE would eventually act on their application. More importantly, since the DOE continued to engage with the company

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<sup>345</sup> John Voelcker, *Aptera Collapse: How & Why It Happened, A Complete Chronology*, Dec. 12, 2011, available at [http://www.greencarreports.com/news/1070490\\_aptera-collapse-how-why-it-happened-a-complete-chronology](http://www.greencarreports.com/news/1070490_aptera-collapse-how-why-it-happened-a-complete-chronology); Basem Wasef, *Aptera Unveils 200-mpg 2E Prototype*, *Popular Mechanics*, Apr. 12, 2010, available at <http://www.popularmechanics.com/cars/news/preview-concept/aptera-200-mpg-2e-prototype>.

<sup>346</sup> John Voelcker, *Aptera Collapse: How & Why It Happened, A Complete Chronology*, Dec. 12, 2011, available at [http://www.greencarreports.com/news/1070490\\_aptera-collapse-how-why-it-happened-a-complete-chronology](http://www.greencarreports.com/news/1070490_aptera-collapse-how-why-it-happened-a-complete-chronology).

<sup>347</sup> *Id.*

<sup>348</sup> *Id.*

<sup>349</sup> *Id.*

<sup>350</sup> *Id.*

<sup>351</sup> *Id.*

<sup>352</sup> *Id.*

### *Bright Automotive*

Bright Automotive was an Indiana company that developed a plug-in hybrid delivery vehicle that it planned to market to fleet customers.<sup>354</sup> On February 28, 2012, Bright sent DOE a scathing letter announcing that they “have been forced to say uncle” and that it would withdraw from the ATVM application process.<sup>355</sup>

Bright applied for an ATVM Loan in December 2008 and its application was deemed “substantially complete” at that time.<sup>356</sup> DOE continued to review the application for an additional 1,175 days.<sup>357</sup> According to the company, Bright secured letters of support sent to Secretary Chu from large fleet vehicle users such as Cox, Comcast, and Best Buy, and had order letters from Duke, Vectren, and Snap On.<sup>358</sup>

According to documents obtained by the Committee, on March 2, 2012, Lachlan Seward, then the Director of the ATVM Program, indicated to Bright that a loan for less than \$300 million would be quickly approved.<sup>359</sup> In DOE’s next communication, DOE suggested that Bright partner with a large OEM in order to speed up the loan process, intimating that conditional approval would occur in “weeks, not months.”<sup>360</sup> Pursuant to this advice, Bright entered into a strategic partnership with GM in July 2010.<sup>361</sup> At that time, DOE officials informed Bright that they would receive a conditional loan agreement within two months.<sup>362</sup> Two months later, DOE came back to Bright and directed the company to satisfy six additional loan pre-conditions.<sup>363</sup> By January 2011, Bright received a “near final” conditional agreement for a \$314 million loan.<sup>364</sup> It was reviewed by the DOE credit team for five months when on May 18, 2011, DOE determined that it would not consider Bright’s loan based on a volume consideration report generated by DOE, one that Bright had asked DOE to reassess.<sup>365</sup> DOE contractors, A.T. Kierney, conducted a new volume study, which led to Bright’s reconsideration for a loan by DOE in June 2011.<sup>366</sup> DOE once again assured Bright that just as soon as the company’s credit package went through the interagency process, it would receive an offer of

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<sup>353</sup> *Id.*

<sup>354</sup> Jim Motavalli, Citing Onerous Energy Dept. Loan Terms, Bright Automotive Says it Will Close, N.Y. TIMES blog, Feb. 29, 2012.

<sup>355</sup> Letter from Rueben Munger, Chairman and CEO Bright Automotive, and Mike Donoughe, Chief Operating Officer Bright Automotive, to Hon. Steven Chu, Secretary, DOE, Feb. 28, 2012 (on file with author).

<sup>356</sup> Letter from Rueben Munger, Chairman and CEO Bright Automotive, and Mike Donoughe, Chief Operating Officer Bright Automotive, to Hon. Steven Chu, Secretary, DOE, et. al. Dec. 27, 2011 (on file with author).

<sup>357</sup> Jim Motavalli, Citing Onerous Energy Dept. Loan Terms, Bright Automotive Says it Will Close, N.Y. TIMES Autoblog, Feb. 29, 2012.

<sup>358</sup> Letter from Rueben Munger, Chairman and CEO Bright Automotive, and Mike Donoughe, Chief Operating Officer Bright Automotive, to Hon. Steven Chu, Secretary, DOE, et. al. Dec. 27, 2011 (on file with author).

<sup>359</sup> *Id.*

<sup>360</sup> *Id.*

<sup>361</sup> *Id.*

<sup>362</sup> *Id.*

<sup>363</sup> *Id.*

<sup>364</sup> *Id.*

<sup>365</sup> *Id.*

<sup>366</sup> *Id.*

October 2011, DOE told Bright to raise additional equity and perform other financial changes to bolster its balance sheet and credit.<sup>368</sup> This last demand caused Bright to withdrawal from the ATVM loan process.<sup>369</sup> In February 2012, the company closed down.

In their letter to the DOE, Bright's CEO Rueben Munger and COO Mike Donoughe flatly stated that the ATVM process distorted the U.S. private equity markets, effectively making DOE the only way for ATV companies to receive funding. According to Munger and Donoughe, DOE then used this position to submit the applicants to the control and "whim" of government bureaucrats.<sup>370</sup> As the letter points out, the ATVM program, as DOE is administering it, contravenes the purpose of the program because it stymies rather than advances technology within the automotive market. After spending millions of dollars to comply with DOE's endless finish line and consuming nearly three years of time, Bright withdrew its application from the ATVM Program, closing the company and its idea.

### *Severstal*

While DOE was stringing along potentially innovative auto manufacturers, they were working to approve a conditional loan agreement for a business that did not appear to qualify at all for the ATVM Program. In June 2011, DOE conditionally approved a \$730 million loan to steel company Severstal North America, a subsidiary of OAO Severstal, and a multibillion-dollar Russian steel and mining corporation. The ATVM loan would have financed Severstal's expansion and re-equipment of a Dearborn, Michigan, steel plant, located within Ford's manufacturing campus, to produce advanced high strength steel (AHSS). Chairman Issa challenged the appropriateness of this loan for several reasons: Severstal applied for a loan to produce AHSS, a material, not a "component part" as required under Section 136;<sup>371</sup> and it did not appear that the company needed public funding to "bring its product to market" as it was a subsidiary of a multi-billion dollar Russian corporation. Moreover, Severstal had already made significant strides towards completing the Dearborn project through private financing, even before receiving any money from DOE.<sup>372</sup> In its initial response to the Committee, DOE defended its due diligence and decision-making on the Severstal loan, touting the market strength of the company's product.<sup>373</sup>

On January 6, 2012, DOE reversed its position and denied Severstal's loan. When asked why it has changed its mind, DOE informed Committee staff, "We [DOE] could not get

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<sup>367</sup> *Id.*

<sup>368</sup> *Id.*

<sup>369</sup> Jim Motavalli, Citing Onerous Energy Dept. Loan Terms, Bright Automotive Says it Will Close, N.Y. TIMES Autoblog, Feb. 29, 2012.

<sup>370</sup> Letter from Rueben Munger, Chairman and CEO Bright Automotive, and Mike Donoughe, Chief Operating Officer Bright Automotive, to Hon. Steven Chu, Secretary, DOE, Feb. 28, 2012 (on file with author).

<sup>371</sup> Advanced Technology Vehicles Manufacturing Incentive Program, 73 Fed. Reg. 66,721, 66,722 (Nov. 12, 2008) (to be codified at 10 C.F.R. pt. 611).

<sup>372</sup> Press Release, *Severstal North America Completes Asset Sale and Accelerates Capital Improvements*, Severstal North America, Mar. 31, 2011.

<sup>373</sup> Letter from David G. Frantz, Acting Executive Director Loan Program Office, U.S. DOE, to Hon. Darrell Issa, Chairman, H. Committee on Oversight and Gov't Reform, Nov. 18, 2011 (on file with author).



This explanation is curious, as DOE offered the conditional loan agreement based on a forecasted increase in market demand for AHSS.<sup>375</sup> DOE had originally projected Severstal to be the market leader in domestic AHSS production, even as other companies entered the American AHSS market.<sup>376</sup> DOE decided not to give a final loan to Severstal and, in so doing, questioned the company's ability to repay the loan. Based on the apparent contradiction between DOE's analyses, it is obvious that DOE has no clearly established standard it uses to evaluate ATVM loan applicants.

### Fisker

One of DOE's original loans has been suffering severe setbacks in production, and many have predicted its eventual collapse.<sup>377</sup> In April 2010, DOE issued an ATVM loan of nearly half a billion dollars to Fisker. DOE froze the loan in February 2012, halting the issuance of any further money, because the company failed to meet DOE's benchmarks. Fisker's woes began with with regulatory issues and delays in production of the Karma, Fisker's \$100,000 luxury sedan. Fisker has since engaged DOE to renegotiate its loan agreement and renegotiate benchmarks.<sup>378</sup> Due to the financial troubles, including DOE's freezing of the loan, Fisker has laid off 23 employees from its Delaware manufacturing plant<sup>379</sup> and 40 employees and contractors in its California plant.<sup>380</sup> In addition, Fisker recently announced that it was replacing founding CEO Henrik Fisker with Tom LaSorda, a former executive at both Chrysler and GM.<sup>381</sup> Furthermore, the Fisker Karma that *Consumer Reports* purchased to review broke down after less than 200 miles of operation and had to be towed 100 miles back to the dealer because the car would not even start.<sup>382</sup> Based on this reshuffling and DOE's actions, Fisker appears to be a volatile company with a questionable future. Fisker's current problems raise serious questions about DOE's decision-making and an inconsistent standard in the ATVM Program.

### ATVM Conclusion

DOE mismanagement of the ATVM Loan Program has put potentially viable companies out of business and caused major setbacks within the ATVM market. DOE has only succeeded in

<sup>374</sup> Interview with David G. Frantz, Acting Director ATVM Program, Jan. 13, 2012.

<sup>375</sup> U.S. Dept. of Energy, ATVM Loan Evaluation – Severstal Dearborn Market Analysis, Mar. 22, 2010 (on file with author).

<sup>376</sup> *Id.*

<sup>377</sup> Eric Ruth, et al., *Can Fisker Keep its Promise?*, Delaware Online, Feb. 13, 2012, available at <http://www.delawareonline.com/article/20120213/BUSINESS09/302130001/Can-Fisker-keep-its-promise->.

<sup>378</sup> Matthew Mosk, *Another Green Energy Company Stumbles: Fisker Announces Layoffs*, Feb. 6, 2012, available at <http://abeneews.go.com/Blotter/fisker-automotive-announced-layoffs/story?id=15524021>.

<sup>379</sup> *Id.*

<sup>380</sup> Associated Press, *Fisker Announces Layoffs as Automaker Misses Targets, has DOE Loans Frozen*, Feb. 7, 2012, available at <http://www.foxnews.com/leisure/2012/02/07/fisker-announces-layoffs-as-company-misses-targets-has-doe-loans-frozen/>.

<sup>381</sup> Dina Hull, *Fisker Automotive Replaces CEO with Auto Industry Veteran*, Mercury News, Feb. 28, 2012, available at [http://www.mercurynews.com/business/ci\\_20062262](http://www.mercurynews.com/business/ci_20062262).

<sup>382</sup> Tom Mutchler, *Bad Karma: Our Fisker Karma Plug-in Hybrid Breaks Down*, CONSUMER REPORTS, Mar. 8, 2012, available at <http://news.consumerreports.org/cars/2012/03/video-bad-karma-our-fisker-karma-plug-in-hybrid-breaks-down.html>.

connections to the Obama Administration. However, hundreds of other companies wait in DOE's loan queue. At least two of these companies have declared bankruptcy after engaging with DOE for a number of years, believing, based on representations from the Department, that they would eventually receive a government loan. Meanwhile, DOE conditionally approved a loan for a company that did not meet threshold requirement to be in the program. DOE's haphazard and inconsistent administration of the loan program has created significant uncertainty within the advanced vehicle manufacturing community and has potentially retarded progress on the next generation of automotive technologies.

## **Conclusion**

The findings regarding the DOE loan programs discussed in this report tell only part of a much greater story—a story of mismanagement, waste and abuse symptomatic of reaching too far, working too fast, and spending too much to achieve unrealistic objectives. There are significant concerns about DOE's management and administration of the weatherization, 1705, and ATVM programs. And a management structure unprepared and incapable of dealing with the challenges it faced when pressed to push out the door tens of billions of dollars in a short period of time. In the days ahead, the Committee will continue its investigation and examine DOE's record on a loan-by-loan basis, with the continued hope that spotlighting these shortcomings will provide Congress and the American people with the insight they need to assess the true value—or cost—of these types of programs.

her to understand the most confidential and material aspects of the Noble Environmental and its subsidiary Granite Reliable. DeParle misrepresented her relationship with Noble Energy, claiming on disclosure forms that her interest had been divested, when in fact it had merely been transferred to her 10 year old son.<sup>180</sup>

During her time at the White House, Granite Reliable sought and, in September 2011, obtained a partial guarantee of a \$168.9 million loan.<sup>181</sup> Granite Reliable's application for a DOE loan guarantee was made at least by early 2010, and probably earlier than that, according to signed documents relating to the loan application. Noble sold Granite Reliable in December 2010 to Brookfield Asset Management, just 6 months prior to the conditional approval of the DOE loan guarantee and deep into the application process. The DOE loan guarantee was conditionally approved on June 2011 and finalized in September 2011. DeParle's ownership stake in Noble, which owned Granite Reliable, a beneficiary of a DOE loan, represents a clear conflict of interest.

### *Michael Froman*

Michael Froman currently serves as the Deputy Assistant to the President and Deputy National Security Advisor for International Economic Affairs.<sup>182</sup> He was a friend of President Obama's from law school,<sup>183</sup> and supported his political career by bundling over \$200,000 for his 2008 presidential candidacy.<sup>184</sup>

Prior to his arrival at the White House, Froman was the Managing Director of Alternative Investments at Citigroup,<sup>185</sup> where he managed infrastructure and sustainable development investments.<sup>186</sup> Citigroup became a major investor in SolarReserve,<sup>187</sup> which ultimately received a \$737 million loan guarantee in September 2011.<sup>188</sup>

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<sup>179</sup> Press Release, Noble Environmental Power, Noble Environmental Power Signs Agreement for the Sale of its Interest in its New Hampshire Wind Project (Dec. 7, 2010) available at [http://www.noblepower.com/pressroom/documents/10-12-7\\_NEP-SignsAgreementForSaleOfNHWindProject\\_Final.pdf](http://www.noblepower.com/pressroom/documents/10-12-7_NEP-SignsAgreementForSaleOfNHWindProject_Final.pdf).

<sup>180</sup> Nancy Ann DeParle, Executive Branch Personnel Public Financial Disclosure Report (Mar. 9, 2009) available at <http://www.scribd.com/doc/62509267/DeParle-Nancy-Ann-278-10A>.

<sup>181</sup> U.S. Dep't of Energy Loan Programs Office, 1705 Program, "Projects: Granite Reliable" available at <https://lpo.energy.gov/projects=granite-reliable>.

<sup>182</sup> Center for Responsive Politics, "Barack Obama Bundlers," OpenSecrets available at <http://www.opensecrets.org/pres08/bundlers.php?id=N00009638>.

<sup>183</sup> Jonathan Weisman, *Obama Taps Froman For Joint Security*, *Economic Post*, WALL ST. J., Jan. 30, 2009 available at <http://online.wsj.com/article/SB123328110238231817.html>.

<sup>184</sup> OpenSecrets, *supra* note 182.

<sup>185</sup> DealBook, *Citigroup Fund Hit a Speed Bump*, N.Y. TIMES, July 20, 2009 available at <http://dealbook.nytimes.com/2009/07/20/citigroup-funds-hit-speed-bump/?ref=michaelfroman>.

<sup>186</sup> Press Release, Harvard Law School, Michael Froman '91 joins White House in joint security, economic post (Feb. 3, 2009) available at [http://www.law.harvard.edu/news/2009/02/03\\_froman.html](http://www.law.harvard.edu/news/2009/02/03_froman.html).

**Advanced Technology Vehicles Manufacturing Incentive Program**

AGENCY: Office of the Chief Financial Officer, Department of Energy (Department or DOE).

ACTION: Interim final rule; request for comment.

SUMMARY: Today's interim final rule establishes the Advanced Technology Vehicles Manufacturing Incentive Program authorized by section 136 of the Energy Independence and Security Act of 2007, as amended. Section 136 provides for grants and loans to eligible automobile manufacturers and component suppliers for projects that reequip, expand, and establish manufacturing facilities in the United States to produce light-duty vehicles and components for such vehicles, which provide meaningful improvements in fuel economy performance beyond certain specified levels. Section 136 also provides that grants and loans may cover engineering integration costs associated with such projects. This interim final rule establishes applicant eligibility and project eligibility requirements for both the grant and the loan program. Today's interim final rule also establishes the application requirements and the general terms for the loan program. At present, Congress has appropriated funds through the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009, for only the loan program. As

Board's staff. In addition, the rule was made available through the Internet by USDA and the Office of the Federal Register. That rule provided for a 60-day comment period which ended on September 22, 2008. No comments were received.

A small business guide on complying with fruit, vegetable, and specialty crop marketing agreements and orders may be viewed at: [http://www.ams.usda.gov/AMSv1.0/ams\\_fetchTemplateData.do?template=TemplateN8&page=MarketingOrders](http://www.ams.usda.gov/AMSv1.0/ams_fetchTemplateData.do?template=TemplateN8&page=MarketingOrders). *SmallBusinessGuide*. Any questions about the compliance guide should be sent to Jay Guesler at the previously mentioned address in the **FOR FURTHER INFORMATION CONTACT** section.

After consideration of all relevant material presented, including the Board's recommendation, and other information, it is found that finalizing the interim final rule, without change, as published in the **Federal Register** on July 24, 2008 (73 FR 43056), will tend to effectuate the declared policy of the Act.

#### List of Subjects in 7 CFR Part 981

Almonds, Marketing agreements, Nuts, Reporting and recordkeeping requirements.

#### PART 981—ALMONDS GROWN IN CALIFORNIA

■ Accordingly, the interim final rule amended 7 CFR part 981, which was published at 73 FR 43056 on July 24, 2008, is adopted as a final rule without change.

Dated: November 5, 2008.

David R. Shipman,

Associate Administrator, Agricultural Marketing Service.

IFR Doc. E6-26851 Filed 11-10-08; 8:45 am  
BILLING CODE 3410-02-P

#### DEPARTMENT OF ENERGY

##### 10 CFR Part 611

##### RIN 1901-AB25

#### Advanced Technology Vehicles Manufacturing Incentive Program

**AGENCY:** Office of the Chief Financial Officer, Department of Energy (Department or DOE).

**ACTION:** Interim final rule; request for comment.

**SUMMARY:** Today's interim final rule establishes the Advanced Technology Vehicles Manufacturing Incentive Program authorized by section 136 of the Energy Independence and Security

Act of 2007, as amended. Section 136 provides for grants and loans to eligible automobile manufacturers and component suppliers for projects that reequip, expand, and establish manufacturing facilities in the United States to produce light-duty vehicles and components for such vehicles, which provide meaningful improvements in fuel economy performance beyond certain specified levels. Section 136 also provides that grants and loans may cover engineering integration costs associated with such projects. This interim final rule establishes applicant eligibility and project eligibility requirements for both the grant and the loan program. Today's interim final rule also establishes the application requirements and the general terms for the loan program. At present, Congress has appropriated funds through the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009, for only the loan program. As such, DOE will be implementing the loan program only at this time, though issuing rules for both the grant and loan programs.

**DATES:** This interim final rule is effective November 12, 2008. Applications for a direct loan will be reviewed by DOE in tranches. To be eligible for the first tranche, applications may be submitted or hand delivered to the Postal Mail address listed in **ADDRESSES** until December 31, 2008. The deadline for loan applications for subsequent tranches of loans will be the end of every calendar quarter thereafter as funds and available loan authority permit. Comments must be received by DOE no later than December 12, 2008. If you submit information that you believe to be exempt by law from public disclosure, you should submit one complete copy, as well as one copy from which the information claimed to be exempt by law from public disclosure has been deleted. DOE is responsible for the final determination with regard to disclosure or nondisclosure of the information and for treating it accordingly under the DOE Freedom of Information regulations at 10 CFR 1004.11.

**ADDRESSES:** You may submit comments, identified by any of the following methods:

- **Federal eRulemaking Portal:** <http://www.regulations.gov>. Follow the instructions for submitting comments.
- **E-mail:** [ATVMLoan@hq.doe.gov](mailto:ATVMLoan@hq.doe.gov).
- **Postal Mail:** Advanced Technology Vehicles Manufacturing Incentive Program, U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585.

• **Hand Delivery/Courier:** Advanced Technology Vehicles Manufacturing Incentive Program, U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585.

**Instructions:** All submissions must include the agency name and docket number or Regulatory Information Number (RIN) for this rulemaking.

**FOR FURTHER INFORMATION CONTACT:** Lachlan Seward, Advanced Technology Vehicles Manufacturing Incentive Program, U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, 202-586-8146; or Daniel Cohen, Assistant General Counsel for Legislation and Regulatory Law, Office of the General Counsel, 1000 Independence Avenue, SW., Washington, DC 20585, 202-586-2918.

#### SUPPLEMENTARY INFORMATION:

- I. Introduction and Background
- II. Discussion of Interim Final Rule
  - A. Applicant Eligibility for Grant and Loan Programs—Statutory Criteria
  - B. Applicant Eligibility for Direct Loan Programs—Secretarial Determinations
  - C. Project Eligibility for Grant and Loan Programs
  - D. Terms for Direct Loans
  - E. Application Process for Direct Loan Program
  - F. Credit Subsidy Cost for Direct Loans
  - G. Project Costs
  - H. Assessment of Fees for Direct Loan Program
  - I. Assessment of Applications and Program Priorities
- III. Application Submission
- IV. Regulatory Review
  - A. Review Under Executive Order 12866
  - B. Review Under National Environmental Policy Act of 1969
  - C. Review Under the Regulatory Flexibility Act
  - D. Review Under the Paperwork Reduction Act
  - E. Review Under the Unfunded Mandates Reform Act of 1995
  - F. Review Under the Treasury and General Government Appropriations Act, 1999
  - G. Review Under Executive Order 13132
  - H. Review Under Executive Order 12968
  - I. Review Under the Treasury and General Government Appropriations Act, 2001
  - J. Review Under Executive Order 13211
  - K. Congressional Notification
  - L. Approval by the Office of the Secretary of Energy

#### I. Introduction and Background

Section 136 of the Energy Independence and Security Act of 2007 ("EISA"), enacted on December 19, 2007, Public Law 110-140, authorizes the Secretary of Energy ("Secretary") to make grants and direct loans to eligible applicants for projects that reequip, expand, or establish manufacturing facilities in the United States to produce qualified advanced technology vehicles, or qualifying components and also for

construction and startup of the Granite Reliable Power Wind Park project located in Coös County, New Hampshire, will not have a significant impact on the human environment. The preparation of an environmental impact statement is therefore not required, and DOE is issuing this FONSI.

Copies of the Final EA are available at the DOE Loan Guarantee Program Office website at <http://www.lgprogram.energy.gov/NEPA-1.html> or from

Matthew C. McMillen  
Director, Environmental Compliance Division  
Loan Programs Office, LP-10  
U.S. Department of Energy  
1000 Independence Ave, SW  
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Additional information on the DOE NEPA process is available from

Office of NEPA Policy and Compliance  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585  
202-586-4600 or 1-800-472-2756

Issued in Washington, DC on the 23 day of July in the year 2010.



Jonathan M. Silver  
Executive Director, Loan Programs



**Overview of the Solicitation for Federal Loan  
Guarantee Applications for Commercial Technology  
Renewable Energy Generation Projects under the  
Financial Institution Partnership Program (FIPP)**

**October 22, 2009**



The Fisker Karma, seen in Washington, D.C., on Oct. 19, 2011. (ABC News)

AUTO START: ON | OFF



By MATTHEW MOSK (@matmosk)  
March 9, 2012

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The government-backed electric car maker [Fisker Automotive](#) has encountered its share of speed bumps financially -- announcing in recent weeks that it would have to lay off some workers and suspend work on a more affordable electric-gas hybrid version of its new luxury sports sedan, the Karma.

But since unveiling the \$107,000 Fisker Karma, the car conceptualized by legendary designer Henrik Fisker, the sleek and quiet vehicle has received mostly rave reviews from auto experts, enthusiasts, and several of those who have bought the 2,000 cars that have so far come off the line.

When [Consumer Reports](#) took the car out for a test spin recently, however, the Karma did not perform as planned. The consumer company bought a Karma from a dealer for the purpose of putting it to the test. And in a video now posted on its website, [Consumer Reports](#) auto engineer Tom Mutchler explains what happened.

"It is low, it is sleek, it is sensuous. It's also broken. Right here in the middle of our driveway. The car doesn't go in gear. It doesn't move," he says.

The new car had to be towed away.



Obama's Green Car Program Under Scrutiny Watch Video





A teaser sketch of Fisker's Project Nina was released yesterday, the car is the first of a long-awaited line of plug-in hybrid electric cars, and the company has announced it will give the public "a glimpse of the future of" the company.

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Yesterday, Fisker Automotive quietly released a teaser photo showing a line drawing of the long-awaited Fisker Nina plug-in hybrid electric car. No details were released about the car. Instead this is the first piece of solid information released by the company about the Nina, however a full reveal is promised at the upcoming New York Auto Show.

Fisker Automotive is a startup automobile company launched by Henrik Fisker in 2007. The company's focus is on luxury hybrid electric cars, and the company uses the "Extended Range Electric Vehicle" phrase, coined GM's marketing, to describe

Fisker's drive train choice. The company is currently selling its first car, the Fisker Karma, and has released bits of information about two concept cars, the Surf and the Sunset. No information has



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In 2009, Energy Secretary Steven Chu announced a \$628.7 million conditional loan for Fisker Automotive to cover part of the development and manufacturing of the Fisker Karma and Fisker Nina cars. The first stage was a \$100.3 million loan for engineering costs on the Fisker Karma, while the remaining \$528.36 million is for manufacturing costs to get the Nina project into production. Last fall the company issued a press release clarifying that all money from that loan was spent in the U.S. on things like U.S. based engineering staff to design the cars, as well as purchase and retooling of the former GM factory. The company has also raised significant private financing, which it is using for expenses outside the U.S.

The company expects to manufacture the Nina cars at a significant volume, in the 50-100,000 per year range. The company expects to be exporting more than half of those cars.

However, life would not be life without a few complications along the way. In early February 2012, **Fisker Automotive announced it had laid off some workers**, some of whom were retooling the former GM factory, subsequent to the Department of Energy having frozen the ATVM loans to the company. This in turn was the result of the company missing some milestones required by the ATVM program. In other words, the company was slow in launching production and sales of the Karma, causing the company to miss ATVM loan milestones, in turn causing the loans to be frozen, etc. The sequence of events has also affected **A123 Systems**, a company that is both an investor in Fisker, as well as its the battery supplier. The problems at Fisker has affected A123 as well, with A123 looking to diversify its revenue streams so it isn't as beholden to the success of one customer.

The company has stated its private financing totals over \$660 million. While the Dept of Energy ATVM loan guaranteed up to \$529 million, only \$190 million has been drawn. The company says that, in May 2011, it "opted to stop taking reimbursements from the DOE while the company entered negotiations to implement more realistic and achievable milestones." Additionally, the company has said "As a prudent business measure, project Nina has been temporarily put on hold until financing, either from the DOE or elsewhere, can be secured."

Which leaves us wondering, if work on the former-GM factory is still frozen, project Nina is "temporarily on hold," then what can Fisker Automotive be planning to announce at the NY Auto Show?

The company has said the design for the Nina is essentially done, and presumably a few prototype cars can be shown off and spec sheets will be available. But will the company be able to announce resumption of the retooling work at the Bowwood Road Plant? Will the freezing of Project Nina affect the timeline of bringing it to production? Or has Fisker been successful enough with its fundraising efforts to allow it to ignore the Department of Energy, and to just start production on its own terms?

Since late last fall the company has been running its Series D investment round, originally targeted to raise \$150 million but later expanded to a \$300 million target. In an SEC filing dated Feb 10, 2012, the company disclosed it had raised \$263 million of that amount. Additionally the company claims to have recognized \$100 million in revenue since December 2011 on sales of the Karma (which indicates sales of nearly 500 Karmas).



# U.S. DEPARTMENT OF **ENERGY**

**News Media Contact(s):**  
(202) 586-4940

**For Immediate Release**  
September 22, 2009

## **US Energy Secretary Chu Announces \$528 Million Loan for Advanced Vehicle Technology for Fisker Automotive**

*Investment will save or create at least 5,000 jobs*

Washington, DC – Energy Secretary Steven Chu today announced a \$528.7 million conditional loan for Fisker Automotive for the development of two lines of plug-in hybrids that will save hundreds of millions gallons of gasoline and offset millions of tons of greenhouse gas emissions by 2016. The project will result in approximately 5,000 jobs created or saved for domestic parts suppliers and thousands more to manufacture a plug-in hybrid in the U.S.

“This investment will create thousands of new American jobs and is another critical step in making sure we are positioned to compete for the clean energy jobs of the future,” said Secretary Chu. “Plug-in hybrid electric vehicles could revolutionize personal transportation and cut our dependence on foreign oil, not to mention give us cleaner air and less carbon pollution.”

This is the fourth conditional loan commitment the Department of Energy has entered into under the Advanced Technology Vehicles Manufacturing (ATVM) Loan program. The Department plans to make additional loans under this program over the coming months to large and small auto manufacturers and parts suppliers up and down the production supply chain.

In the first stage of the program, Fisker Automotive will use a \$169.3 million ATVM loan for engineering integration costs as it works with primarily U.S. suppliers to complete the company’s first vehicle, the Fisker Karma. Engineers will also design tools and equipment and develop manufacturing processes. This work will be conducted at Fisker’s Pontiac, Michigan office with support from its headquarters in Irvine, California. While the final assembly of the Karma will be done overseas, more than 65 percent (based on cost) of the parts required for Karma will come from U.S. suppliers. The four-door Karma is scheduled to appear in showrooms in summer 2010.

The second stage includes a \$359.36 million ATVM loan for Fisker’s Project Nina, involving the manufacture of a plug-in hybrid in the U.S. Fisker estimates that up to 75,000-100,000 of these highly efficient vehicles will roll off assembly lines in the U.S. every year beginning in late 2012. The combined projects are anticipated to create thousands of jobs in the U.S. and provide substantial support for domestic parts suppliers saving or creating approximately 5,000 jobs.

Fisker automobiles are driven by electric motors powered by a lithium-ion battery, or, when that is depleted, a generator driven by an efficient gasoline engine. The electric-only range will be more than most people drive in a day. The battery can be charged at home overnight. Using gas and electric power, Fisker plug-in hybrids will have a cruising range of about 300 miles. The projected annual sales of these vehicles would contribute significantly to the Administration’s goal of having one million plug-in hybrids on the road by 2015.

## Car Company Got \$200 Million Energy Department Loan

The luxury carmaker Fisker Automotive continues to signal it could ditch plans to build its next generation hybrid electric vehicle in the United States, despite the nearly \$200 million in Obama administration loan money it has already received.

Fisker received federal funds in part to help purchase a shuttered General Motors plant in Delaware, where it predicted it would one day employ 2,000 auto workers to assemble the clean-burning gas-electric family car, known as the Atlantic.

But company executives began hinting in February that it would reconsider that plan and look for a cheaper place to build the car after the Department of Energy froze the \$529 million green-energy loan the company had received, and had been drawing on since 2010.

Fisker used the first \$169 million in taxpayer funds to bring to market the Karma, a flashy \$100,000 hybrid sports sedan that it assembles in Finland. After a series of delays and stumbles, the company announced it had sold its first 1,000 Karmas, bringing in \$100 million in revenues so far this year. The sleek, high-end model has been well received by critics, and the company reported this week it has started to sell in Europe, and could soon be on sale in the Middle East.

Earlier this year, one of the Karmas stopped working in the middle of a Consumer Reports road test -- an embarrassing breakdown that Fisker later blamed on a faulty battery. The lithium-ion batteries became the subject of a recall, including for a defect that raised the risk of fires.

More recently, one of the high-priced cars went up in flames in the garage of its Texas owner. Fisker said the car was unplugged at the time of the fire and the battery pack was intact and still working after the blaze -- all clear indications, they said, that neither the car nor its battery had anything to do with the fire. A spokeswoman for the National Highway Traffic Safety Administration told ABC news the agency is "aware of the incident and is working with local authorities to evaluate whether there are any potential safety implications."

The U.S. Department of Energy has said little about its decision to freeze the balance of Fisker's loan, which was intended to pay for the development of the Atlantic. The department confirmed it hired a restructuring advisor to study the terms of the agreement and assess the performance of the company.

"The Department continues to review Fisker's financial and operating status and is working with the company to review its revised business plan, but no decisions have been made," an Energy Department official said in response to questions from ABC News.

### Fisker: 'Other Options Are Open to Us'

Roger Ormisher, a Fisker spokesman, acknowledged that Fisker had failed to meet the government's milestones for the rollout of the Karma, and that those delays "put us into the process of negotiation with the DoE, who put further monies on hold until we could settle on mutually agreeable milestones" for the rollout of the next car.

It now appears that the company's decision about where to assemble the Atlantic could hinge on whether it will continue to receive federal support. ABC News asked Ormisher if Fisker still felt bound to manufacture the car in Delaware if federal funds were no longer available, or if the company would look for a cost-effective location in or outside the U.S. to build the car.

"If Fisker no longer gets government monies, then obviously we are in a place where other options are open to us and have to be considered from a business perspective," Ormisher said. "However, given the work that we have done

fact that we own it, it is still our primary option to control the company. For the possibility it will need to move forward without our support, we have an aggressive push for outside investors.

**Investing News and Investigation Alerts From The Brian**

**General Motors Automotive's success is not dependent on government subsidies, having raised more than \$1 billion in private equity**

**General Motors is the venture capital firm Kleiner Perkins Caufield & Byers partners include John Doerr, a billionaire tech mogul who sits on the board**

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CONDITIONAL COMMITMENT LETTER

by and between

UNITED STATES DEPARTMENT OF ENERGY

and

FISKER AUTOMOTIVE, INC.

Dated as of September 18, 2009

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Appendices to the Conditional Commitment Letter

Appendix A Term Sheet

Exhibits and Schedules to the Term Sheet

Schedule 1	Financial Covenants
Schedule 2	Minimum Additional Equity Milestones
Exhibit A	Form of Program Financing Agreement
Exhibit B	Form of Note Purchase Agreement
Exhibit C	Form of Promissory Note
Exhibit D	Form of Collateral Value Certificate
Exhibit E	Form of Advance Request





# U.S. DEPARTMENT OF **ENERGY**

**For Immediate Release**  
October 27, 2009

## **Vice President Biden Announces Reopening of Former GM Boxwood Plant**

*Wilmington, DE* – As part of the Administration's commitment to jumpstarting the production of fuel efficient vehicles in America, Vice President Joe Biden today announced Fisker Automotive is re-opening a shuttered former GM factory in Wilmington, Delaware, to produce long-range, plug-in, electric hybrid vehicles. The Wilmington assembly plant was selected by Fisker Automotive for its primary global production facility based on its size, production capacity; and access to shipping ports, rail lines and skilled workforce.

"While some wanted to write off America's auto industry, we said no. We knew that we needed to do something different – in Delaware and all across the nation," said Vice President Biden. "We understood a new chapter had to be written, a new chapter in which we strengthen American manufacturing by investing in innovation. Thanks to a real commitment by this Administration, loans from the Department of Energy, the creativity of U.S. companies and the tenacity of great state partners like Delaware – we're on our way to helping America's auto industry reclaim its top position in the global market."

In September, Secretary Chu announced a \$528.7 million conditional loan for Fisker Automotive for the development of two lines of plug-in hybrids, which will save hundreds of millions gallons of gasoline and offset millions of tons of carbon pollution by 2016. Of the total loan, \$359 million is going to revive manufacturing at the Boxwood Plant. The Boxwood Plant will support Fisker Automotive's Project NINA, the development and build of a mass-market plug-in hybrid sedan. The company estimates it will build 75,000-100,000 of these highly efficient vehicles every year by 2014. Also of the total loan, \$169.3 million is helping support engineering integration in Michigan and California as Fisker works with U.S. suppliers to complete the company's first vehicle, design tools and equipment for mass manufacturing, and develop manufacturing processes for the new Wilmington, Delaware, facility.

"This is proof positive that our efforts to create new jobs, invest in a clean energy economy and reduce carbon pollution are working," said Energy Secretary Steven Chu. "We are putting Americans back to work and reigniting a new Industrial Revolution that is paramount for the economic success of this country."

"The rebirth of the Boxwood Road plant is good for Delaware's workers," said Ed Montgomery, the Executive Director of the White House Council for Automotive Communities and Workers. "The cars that will be produced here are the result of a Federal and state partnership with the private sector to make the energy efficient vehicles of tomorrow. The reopening of this facility serves as another reminder of the resiliency of the American worker and the continuing transformation of our national economy."

Fisker automobiles are driven by electric motors powered by a lithium-ion battery, or, when that is depleted, a generator driven by an efficient gasoline engine. The electric-only range will be more than most people drive in a day. The battery can be charged at home overnight. Using gas and electric power, Fisker plug-in hybrids will have a cruising range of about 300 miles.

The Fisker loan is the fourth conditional loan commitment the Department of Energy has entered into under the Advanced Technology Vehicles Manufacturing (ATVM) loan program. The Department plans to make additional loans under this program over the coming months to large and small auto manufacturers and parts suppliers up and down the production supply chain.

In addition, plug-in hybrids and other electric vehicles will also become an important part of the smart grid infrastructure being created in the United States. With smart metering infrastructure, consumers and utilities will be able to charge these vehicles when electricity demand and prices are lowest and also when power from intermittent renewable resources like wind and solar are more available. Ultimately, consumers might be able to sell an unneeded portion of the battery's charge back to the grid, creating a system of distributed energy storage that will help make the grid more reliable, save money, and allow us to rely on renewable technologies for a greater percentage of our energy.

**U.S. Department of Energy, Office of Public Affairs, Washington, D.C.**

This weeks news that a Fisker Karma, purchased by Consumer Reports for testing, broke down, piling yet another piece of bad-looking news on the back of Fisker Automotive.

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Fisker Automotive is learning it's painful when your Karma breaks down. That's the lesson this week after Consumer Reports went public with news that a Fisker Karma, bought by CR for an upcoming test report, broke down early in the testing process. CR posted the news on their blog, and on YouTube, on wednesday, which in turn inspired a slew of negative press coverage about Fisker.

CR's blog post says the company buys about 50 cars a year for writing reviews, and that "this is the first time in memory that we have had a car that is undrivable before it has finished our check-in process." The report



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The Fisker Karma is a plug-in hybrid luxury sedan. It is sleek, low slung, styled with curves layered upon curves, a luxurious interior made of a variety of recycled materials, and the whole package is the sort of automotive beauty designed to make certain types of men drool. If there's one thing Henrik Fisker knows, it's how to design an appealing automobile. The company has received low interest loans through the Department of Energy (in the Advanced Technology Vehicles Manufacturing Loan Program begun under the Bush Administration), in part to support getting the Karma to market, and primarily to support Fisker's development of the plant and refurbishing of the former GM factory in Delaware meant to produce the Nira.

This news is the latest in a series of bad news for Fisker. The Karma has seen delay after delay before deliveries commenced late last summer. Just before Christmas, **Fisker found a flaw in battery packs supplied by A123 Systems**, a flaw which could have led to a fire. That led to a **recall of the Karma's** which were in dealer or customer hands. In January a software glitch arose which could trigger warning lights and freeze the navigation system. In early February **Fisker had a small layoff** after the Department of Energy froze the loan, because Fisker had missed milestones required by the loan program such as meeting sales Karma projections. Fisker's management says rumors of **the company's impending bankruptcy are over-hyped**, while at the same time company founder, Henrik Fisker, has been replaced as CEO by former Chrysler CEO Tom LaForte. The news surrounding **Fisker is also affecting perceptions of A123 Systems**. As the battery supplier for Fisker, as well as an investor in that company, A123's finances are threatened by Fisker's problems.

It's incorrect, as some reports have done, to say that CR's Karma was "bricked" during testing. This demonstrates a profound lack of understanding of terminology such as "bricked". The Consumer Reports blog post describes the dashboard as generally functional, but that the car stuck itself in Park. A "bricked" gizmo is one that has zero function other than being a paperweight. CR doesn't describe a paperweight, but a car that was simply confused.

The over-the-top response to this incident veers immediately from a broken-down car being towed to the dealer for repairs, to claiming this demonstrates an utter failure of the Obama Administration green technology strategy. It sure looks bad for the car to break down with only 180 miles on the speedometer. But how often do we hear of friends whose newly purchased car is in the shop for repairs? This is not unknown, though we hope this is as rare an occurrence as CR's blogger suggests it is. One thing we can tell is that, apparently, Fisker's quality assurance team didn't do their job very well. How, pray tell, does the breakdown of a car mean that the whole green technology strategy is an Obama-fail?

Fisker Automotive issued a statement saying that "As part of the Fisker VIP Customer Service program" the local Fisker dealer picked up the car, and technicians are diagnosing the problem. Further, "With nearly 500 units retailed to date there are many satisfied customers around the world driving Fisker Karmas every day, without incident, while positive media coverage of the Karma continues to pour in."

<b>FOIA Request Number</b>	<b>Subject</b>	<b>Date Received</b>	<b>Estimated Completion Date</b>
FOIA-2009-000002	Copies of all applications submitted to DOE under the Advanced Technology Vehicles Manufacturing Incentive Program	1/5/2009	5/29/2009
FOIA-2009-000003	Contract number that ITP currently holds and that GSA 332345/DOE RQ52-09NA28647 is replacing or re-competing	1/5/2009	Closed at HQ and transferred to the Savannah River Office on 1/16/2009
FOIA-2009-000004	Copies of all data provided to Senator Coburn in response to his request for information concerning leave usage and absenteeism at the DOE	1/5/2009	ECD is 1/30/2009. Closed on 1/26/2009.
FOIA-2009-000005	Information related to the applicants for the DOE's \$25 billion low-interest loans related to the Advanced Technology Vehicle Manufacturing Incentive Program	1/7/2009	5/29/2009
FOIA-2009-000006	Information related to products and services sold by all companies and vendors to DOE from July 1, 2008 to December 31, 2008	1/7/2009	ECD is 1/30/2009. Closed on 1/30/2009
FOIA-2009-000007	Information related to the Pacific Northwest National Laboratory	1/7/2009	Closed at HQ and transferred to the Pacific Northwest Site Office on 1/12/2009
FOIA-2009-000008	Information related to the Stanford Linear Accelerator Center	1/7/2009	Closed at HQ and transferred to the Oak Ridge Office on 1/12/2009
FOIA-2009-000009	Information related to alternative energy sources used for power consumption by prime movers and electric motors	1/8/2009	2/27/2009. Closed on 5/5/2009
FOIA-2009-000010	Information related to specific DOE efforts with regard to SWPA as it relates to the mandatory requirements of Title 29, Code of Federal Regulations,	1/8/2009	ECD is 2/9/2009. Closed on 2/5/2009

	contract #DEAC02-98CH10886		transferred to the Chicago Office on 1/9/2009
FOIA-2009-000012	Information related to DOE contract #DEAC24-05OH20178	1/8/2009	Closed at HQ and transferred to the Environmental Management Consolidated Business Center on 1/9/2009
FOIA-2009-000013	Copy of the Life Cycle Baseline for the Paducah Site, including information related to work performed for DOE under the depleted uranium contract	1/9/2009	Closed at HQ and transferred to the Environmental Management Consolidated Business Center
FOIA-2009-000016	List of power plants that store ash in surface ponds	1/9/2009	Closed on 1/9/2009
FOIA-2009-000017	Copies of applications submitted by various companies with regard to section 136 of the Energy Independence and Security Act of 2007	1/9/2009	5/29/2009
FOIA-2009-000018	Copies of all applications submitted under section 136 of the Advanced Technology Vehicles Manufacturing Loan Program	1/9/2009	5/29/2009
FOIA-2009-000019	Copies of the Part I and Part II applications for loan guarantees submitted to the DOE for new nuclear power plants	1/9/2009	5/29/2009
FOIA-2009-000020	Log of all correspondence between the DOE and Steven Chu	1/9/2009	Closed on 1/12/2009
FOIA-2009-000021	Copies of applications submitted to DOE under the Advanced Technology Vehicles Manufacturing Incentive Program	1/12/2009	5/29/2009
FOIA-2009-000022	Copies of applications submitted by A123 Systems, and Ener1 Inc. to the DOE under the Advanced Technology Vehicles Manufacturing Incentive	1/12/2009	5/29/2009

	optic cable to be run from Houston, TX to Anchorage, AK		
FOIA-2009-000024	Information related to the actual dollar amounts that DOE has incurred for reimbursing Battelle's litigation costs in the Federal case CV-05-5028-RHW	1/12/2009	Closed at HQ and transferred to the Oak Ridge Office on 1/13/2009
FOIA-2009-000025	Copy of the closing memo and final report for various investigations conducted by the Inspector General	1/12/2009	8/3/2009
FOIA-2009-000026	Documents related to the DOE's decision to deem United Nuclear Corporation's former nuclear fuel plant a covered facility under the Energy Employees Occupational Illness Compensation Program Act	1/12/2009	Closed on 5/4/2009
FOIA-2009-000027	Documents pertaining to potential investment in the Savannah River Site and other DOE nuclear cleanup sites, with a view to accelerating their footprint reduction and the proposed Energy Parks Initiative	1/12/2009	Closed on 5/14/2009
FOIA-2009-000028	Records related to an incident that occurred on or about April 18, 1962, in the state of Nevada	1/13/2009	Closed at HQ and transferred to the NNSA Service Center on 1/14/2009
FOIA-2009-000030	List of all government agencies and other entities that received money from the DOE in response to and recovery from hurricanes Katrina and Rita	1/13/2009	Closed on 4/8/2009
FOIA-2009-000031	Copy of the certified payroll for Affiliated Environmental Services for their work performed at Princeton Plasma Physics Lab on the dates of October 11, 2008 to October 12, 2008 and November 14, 2008 to November 16, 2008	1/14/2009	Closed at HQ and transferred to the Chicago Office on 1/15/2009
FOIA-2009-000032	Copies of the scope of work and performance dates for TAD	1/16/2009	Closed on 2/11/2009

FOIA-2009-000033	Copies of all applications submitted to the DOE under the Nuclear Power loan guarantee program solicitation #DE-FOA-0000006	1/16/2009	Cancelled on 4/9/2009
FOIA-2009-000034	Information related to DOE contract #DEAC36-05GO25018	1/21/2009	Closed at HQ and transferred to the Golden Field Office on 1/21/2009
FOIA-2009-000035	List of the applicants for the Advanced Technology Vehicles Manufacturing Loan Program and the loan amount requested	1/21/2009	5/29/2009
FOIA-2009-000036	Source code to JESS rules engine for Java, the software written at the Sandia National Laboratories	1/21/2009	Closed at HQ and transferred to the NNSA Service Center on 1/23/2009
FOIA-2009-000037	Records pertaining to the Departments' dealings with: 1) Edlow International Company; 2) Edlow Resources LLC; 3) Jack Edlow; and 4) Samuel Edlow	1/21/2009	Closed on 4/9/2009
FOIA-2009-000038	Information related to the grant titled "Development of a Commercial-Ready Enzyme Application System for Ethanol," that was awarded to Novozymes in 2008	1/21/2009	Closed at HQ and transferred to the Golden Field Office on 2/10/2009
FOIA-2009-000039	Applications submitted by various companies for the Advanced Technology Vehicles Manufacturing Incentive Program	1/21/2009	5/29/2009
FOIA-2009-000040	Information related to DOE contract #DEAC52-06NA25396	1/21/2009	Closed at HQ and transferred to the NNSA Service Center on 1/23/2009
FOIA-2009-000042	Copies of all contracts and certified payrolls for the work performed by Monty HVAC at the Knolls Atomic Power Laboratory	1/22/2009	Closed at HQ and transferred to the Office of Naval Reactors on 1/23/2009
FOIA-2009-000043	Information related to awarded	1/26/2009	Closed at HQ and



	Certificates program		2/10/2009
FOIA-2009-000045	Incident report prepared by Keith Chase related to an individual removing his duty firearm from his holster	1/26/2009	Closed on 6/8/2009
FOIA-2009-000048	Memos, e-mails and meeting minutes related to the discussion of the joint NIOSH/DOE procedure to ensure security of pulled by NIOSH and Sanford Cohen and Associates for the Energy Employees Occupational Illness Compensation Act, Part B	1/27/2009	7/31/2009
FOIA-2009-000049	Copy of the contract related to #9L7761	1/27/2009	Closed at HQ and transferred to the Savannah River Operations Office on 2/3/2009
FOIA-2009-000050	Copy of the energy savings performance contract awarded to Johnson Controls Government Systems on July 30, 2008	1/27/2009	Closed at HQ and transferred to the Golden Field Office on 2/10/2009
FOIA-2009-000051	Copy of the Acquisition Policies and Procedures under LANL's request for proposal #48260-REQ-07	1/27/2009	Closed at HQ and transferred to the NNSA Service Center on 1/27/2009
FOIA-2009-000053	DOE contract #DEAT01-06EI40508	1/28/2009	Closed on 2/5/2009
FOIA-2009-000054	Records related to a former DOE employee	1/28/2009	Closed on 2/19/2009
FOIA-2009-000056	Communications between DOE and Aerosys Incorporated regarding the DOE's program for consumer products for central air conditioners and central air conditioning heat pumps	1/30/2009	
FOIA-2009-000057	List of unclaimed monies	2/2/2009	Closed on 2/26/2009
FOIA-2009-000060	Correspondence between the DOE and the Newfoundland and Labrador government in Canada regarding energy related issues	2/3/2009	Closed on 2/24/2009
FOIA-2009-000061	Briefing records prepared for	2/3/2009	Closed at HQ and

	hydroelectric projects in Canada, and potential energy sales to the U.S		2/12/2009
FOIA-2009-000062	Copy of the publication entitled "The Handbook for the Nuclear Suppliers Group Dual-Use Annex," published by the Los Alamos National Laboratory	2/5/2009	Closed at HQ and transferred to the NNSA Service Center on 2/5/2009
FOIA-2009-000063	Copies of the applications submitted to DOE for the ATVM Loan Guarantee Program	2/5/2009	5/29/2009
FOIA-2009-000064	DOE contracts numbered DEPS36-06GO96016 and DEPS36-07GO97003	2/5/2009	Closed at HQ and transferred to the Golden Field Office on 2/5/2009
FOIA-2009-000065	Records related to reported incidents, violations and disciplinary hearings involving a former Lawrence Livermore National Laboratory police officer	2/5/2009	Closed at HQ and transferred to the NNSA Service Center on 2/10/2009
FOIA-2009-000066	List of the 64,000 sited included in the Energy Star Building Database for benchmarking	2/6/2009	Closed at HQ and transferred to EPA on 2/19/2009
FOIA-2009-000067	Documents related to Gennady Timchenko and the company Gunvor	2/6/2009	Closed on 3/19/2009
FOIA-2009-000068	RFP #DERP09-04SR22277 and contract #DEAM09-05SR22403	2/6/2009	Closed at HQ and transferred to the Savannah River Operations Office on 2/9/2009
FOIA-2009-000069	CRADA and license agreement between the National Renewable Energy Laboratory and Chevron related to algae, biofuels and genetic modification of algae	2/6/2009	Closed at HQ and transferred to the Golden Field Office on 2/10/2009
FOIA-2009-000070	Correspondence between DOE and Steven Chu	2/6/2009	Closed on 2/13/2009
FOIA-2009-000071	Information related to the human and animal surveillance program	2/9/2009	Closed at HQ and transferred to the NNSA Service Center on 2/11/2009
FOIA-2009-000072	NNSA report to Congress on	2/9/2009	Closed at HQ and

FOIA-2009-000073	Ethics agreements for current presidential nominees for positions requiring Senate confirmation	2/9/2009	
FOIA-2009-000075	Grant given to the Pyramid Lake Paiute Indian Tribe of Nevada for renewable energy	2/9/2009	Closed at HQ and transferred to the Chicago Office and the Golden Field Office on 2/10/2009
FOIA-2009-000076	FOIA requests related to the wind energy sector	2/9/2009	Closed on 2/10/2009
FOIA-2009-000077	Documents related to Sylvania Electric Products, Inc., and/or Sylvania-Coming Nuclear Corporation	2/10/2009	Cancelled on 5/29/2009
FOIA-2009-000078	All applications submitted under the Advanced Technology Vehicles Manufacturing Incentive Program	2/10/2009	5/29/2009
FOIA-2009-000079	Log of FOIA requests received from 2000 to the present	2/10/2009	Closed on 2/19/2009
FOIA-2009-000080	Correspondence related to the assigning of \$12 million of congressional earmarks from FY06 and FY08 to research grant #DEFG02-06ER64249	2/11/2009	3/31/2009
FOIA-2009-000081	Records that reflect the amount of nuclear waste being stored on-site at the nation's nuclear power facilities	2/11/2009	Closed 2/13/2009
FOIA-2009-000082	Documents related to the 2008 assessment of the security programs at Lawrence Livermore National Laboratory	2/11/2009	Closed on 6/29/2009
FOIA-2009-000083	Records related to Robert Charles Wisor's work with nuclear energy as a Project Engineer for the Dupont Corporation	2/12/2009	Closed at HQ and transferred to the Oak Ridge Office on 2/26/2009
FOIA-2009-000084	Criticality engineer's log book that reflects the work done at the Rocky Flats Nuclear Weapons Plant in building 886	2/12/2009	Closed on 3/26/2009

FOIA-2009-000086	Information related to operating data on selected Duke Power Electrical Generating Plants in Ohio	2/12/2009	Closed on 3/25/2009
FOIA-2009-000088	Standard form LLL "Disclosure of Lobbying Activities," submitted by Michael Phelps of the University of California from 1995 to 2009	2/13/2009	Closed on 4/24/2009
FOIA-2009-000089	Correspondence sent from DOE to any applicant for an ATVM loan, from July 1, 2008 to the present	2/13/2009	5/29/2009
FOIA-2009-000091	Information related to the Iowa Army Ammunition Plant in Burlington, Ohio	2/17/2009	Closed at HQ and transferred to NNSA Service Center on 3/6/2009
FOIA-2009-000092	Information related to the nature of the government support of the General Electric Liquid Test Plant for clean coal-generated power in the early 1980s	2/17/2009	Cancelled on 4/16/2009
FOIA-2009-000093	Grant made by DOE to JL Shepherd & Associates for efforts to develop a new shipping package for radioactive material	2/17/2009	Closed at HQ and transferred to the NNSA Service Center on 2/19/2009
FOIA-2009-000094	DOE contract #DEAC01-05ME17331	2/18/2009	Closed on 3/10/2009
FOIA-2009-000095	FOIA log of all requests related to Ethanol	2/18/2009	Closed on 2/19/2009
FOIA-2009-000096	Interview conducted by Professor Ferenc Szasz with Joseph Rotblat in 1988	2/18/2009	Closed at HQ and transferred to the NNSA Service Center on 2/19/2009
FOIA-2009-000097	Documents related to transition preparation, direction, and guidance for agencies, during the 2008-2009 presidential transition	2/18/2009	7/31/2009
FOIA-2009-000098	FOIA log for all requests from January 1, 2008 to January 1, 2009	2/19/2009	Closed on 2/24/2009
FOIA-2009-000099	Correspondence between the DOE and AeroSys Incorporated	2/19/2009	Closed on 5/12/2009

	Policy Act		
FOIA-2009-000103	Applications for funds submitted under section 136 of the Energy Independence and Security Act 2007 – the Advanced Technology Vehicle Manufacturing Program	2/23/2009	5/29/2009
FOIA-2009-000104	Schedule/calendar for Dr. Steven Chu, Secretary of Energy from his first day in the position to the present	2/23/2009	Closed on 5/26/2009
FOIA-2009-000106	Copies of the optical material supplier list and data on each supplier, related to the NIF project of the Lawrence Livermore National Laboratory	2/23/2009	Closed at HQ and transferred to the NNSA Service Center on 2/26/2009
FOIA-2009-000110	List of individuals and organizations outside of the U.S. government who met with, consulted with or provided advice and recommendations to Vice President Cheney and the National Energy Policy Development Group in the formulation and preparation of the National Energy Policy Report submitted to President Bush on May 16, 2001	2/24/2009	Closed 3/12/2009
FOIA-2009-000111	Records related to the participation of Petro-Electric Motors in the Federal Clean Car Incentive Program from 1970 to 1976	2/24/2009	Closed 3/23/2009
FOIA-2009-000114	DOE contract #W-7405-ENC-48	2/25/2009	Closed at HQ and transferred to the NNSA Service Center on 3/10/2009
FOIA-2009-000116	Correspondence between Secretary of Energy Steven Chu and the DOE Office of Inspector General since his appointment as the Secretary of Energy	2/26/2009	Closed on 4/16/2009
FOIA-2009-000117	Correspondence between Secretary of Energy Steven Chu	2/26/2009	Closed on 3/30/2009

his appointment as the Secretary of Energy

FOIA-2009-000119	Records related to a former DOE employee	2/26/2009	Closed on 3/26/2009
FOIA-2009-000120	Winning proposals that were made in response to DOE solicitation #DERP02-08CH11475	2/27/2009	Closed at HQ and transferred to the Chicago Office on 3/4/2009
FOIA-2009-000121	Copies of the ten oldest open or pending FOIA requests currently being processed or held pending coordination with other agencies	3/2/2009	Cancelled on 3/19/2009
FOIA-2009-000144	Ludlum readings for building at site where previously employed	3/3/2009	Closed on 4/27/2009
FOIA-2009-000145	Information related to Project Rulison, an atom bomb detonation near Rulison, CO	3/3/2009	Closed on 6/24/2009
FOIA-2009-000146	Winning proposal for RFP #67641	3/3/2009	Closed at HQ and transferred to the Pacific Northwest Site Office on 3/5/2009
FOIA-2009-000147	Contracts executed between DOE and various utilities for the disposal of spent nuclear fuel and/or high-level radioactive waste	3/3/2009	Closed on 8/7/2009
FOIA-2009-000156	Recently updated RDD-8 entitled "Restricted Data Declassification Decisions from 1946 to the Present	3/4/2009	Closed 3/31/2009
FOIA-2009-000158	DOE contract #DEAC56-99CH10888	3/5/2009	Closed at HQ and transferred to the Savannah River Operations Office on 3/10/2009
FOIA-2009-000159	Documents related to Law Engineering or MACTEC's NQA-1 and/or 10 CFR 50 Appendix B quality manual	3/5/2009	Closed at DOE and transferred to the NRC on 3/11/2009
FOIA-2009-000161	Documents related to and provided by Enron Corporation that address the issue of energy and natural gas deregulation in the United States	3/9/2009	Closed on 6/8/2009
FOIA-2009-000162	Documents related to the role of	3/9/2009	5/29/2009

	participating in or facilitating coal preparation plants in Montana, North Dakota, and Wyoming		
FOIA-2009-000163	Information related to the surge of oil during the summer of 2008	3/9/2009	Closed on 4/3/2009
FOIA-2009-000164	Contract between DOE and the CH2M Hill Corporation to promote solar energy adoption in 25 American cities	3/9/2009	Closed at HQ and transferred to the Golden Field Office on 3/13/2009
FOIA-2009-000165	Records related to a fire that commenced on July 10, 2008 on or around Eaton Road in the City of Lewiston, Idaho	3/9/2009	Closed at HQ and transferred to the Bonneville Power Administration on 3/12/2009
FOIA-2009-000169	Winning proposals of the 16 energy services companies that were issued new master ESPS awards in December 2008	3/10/2009	Closed at HQ and transferred to the Golden Field Office on 3/18/2009
FOIA-2009-000170	Recorded scores and the mean statistical average for the employee performance plan ratings for the last cycle for the Office of Health, Safety and Security	3/10/2009	Closed on 4/2/2009
FOIA-2009-000171	Copies of survey responses from energy services companies that are evaluated in the report entitled "A Survey of the U.S. ESCO Industry: Market Growth and Development from 2000 to 2006"	3/10/2009	Closed at HQ and transferred to the Golden Field Office on 3/20/2009
FOIA-2009-000172	Information related to DOE job announcement #HQ-09-DE-EI-002R	3/10/2009	Closed 4/16/2009
FOIA-2009-000173	Information related to the nuclear power plant project in Southwestern Idaho that is being built by Alternative Energy Holdings, Incorporated	3/10/2009	Closed at HQ and transferred to the NRC on 3/12/2009
FOIA-2009-000174	Report entitled "Transparency and Verification Options: An Initial Analysis of Approaches for Monitoring Warhead	3/10/2009	Closed at HQ and transferred to the NNSA Service Center on 3/12/2009

	2001 to the present between the DOE and Senator Byron Dorgan, Senator John McCain, Representative Rahm Emanuel, Senator Pete Domenici, Senator Barack Obama, Senator Tom Carper, and Senator Robert Bennett on the subject of nuclear power, nuclear waste, specific nuclear power plants or reactors, nuclear accidents and/or nuclear releases		
FOIA-2009-000176	Copies of DOE's monthly electricity bills and usage over the past three years	3/11/2009	Closed on 4/3/2009
FOIA-2009-000177	Materials developed for the groundwater basin administered by the Orange County Water District including all models and simulations	3/11/2009	Closed at HQ and transferred to the NNSA Service Center on 3/16/2009
FOIA-2009-000178	Guidance documents or e-mails concerning whether, how and by what means the DOE will carry out the intent of the President's Memorandum on the FOIA issued on January 21, 2009	3/11/2009	Closed on 4/1/2009
FOIA-2009-000180	Contract awarded on or about July 5, 2007 to Aneresco Solutions, Inc. titled "NREL Biomass ESPC"	3/12/2009	Closed at HQ and transferred to the Golden Field Office on 3/19/2009
FOIA-2009-000181	Crude oil supply agreement between Lyondell-Citgo Refining Company and Lagoven, S. A. dated May 5, 1993	3/12/2009	Closed on 4/2/2009
FOIA-2009-000182	Document entitled "EIA Annual Energy Outlook 1993"	3/12/2009	Closed on 3/16/2009
FOAI-2009-000183	Geographical information system data used to prepare the report entitled "Assessing the Potential for Renewable Energy on Public Lands"	3/12/2009	Closed at HQ and transferred to the Golden Field Office on 3/21/2009
FOIA-2009-000186	Documents pertaining to Cornelius Rhoades and any projects, experiments that	3/13/2009	Closed on 3/26/2009



FOIA-2009-000187	Information related to possible illegal human radiation experiments on the general public in eastern Tennessee, specifically between the Erwin Nuclear Processing Facility and ORNL	3/13/2009	Closed at HQ and transferred to the Oak Ridge Office on 3/17/2009
FOIA-2009-000188	Work for Others contracts between the Brookhaven National Laboratory and Usi and Utilise that relate to the use of a Dual Trap Analyzer or other similar technology used to detect underground leaks	3/13/2009	Closed at HQ and transferred to the Chicago Office on 3/20/2009
FOIA-2009-000189	Report entitled "Restricted Data Declassification Decisions 1946 to the Present (RDD-7)," dated January 1, 2001	3/13/2009	Closed on 4/3/2009
FOIA-2009-000190	Documents related to Project Argus	3/13/2009	Closed on 3/26/2009
FOIA-2009-000191	Documents related to Program F	3/13/2009	Closed on 3/26/2009
FOIA-2009-000192	Environmental impact assessment on the proposed solar powered satellites in geostationary orbit	3/16/2009	Closed on 3/18/2009
FOIA-2009-000193	DOE RFP #DERP01-08HS07014	3/16/2009	Closed on 4/23/2009
FOIA-2009-000194	DOE contract #DEAC09-05RF02110	3/16/2009	Closed at HQ and transferred to the EMCBC on 4/9/2009
FOIA-2009-000196	EIA form 767 for Public Service of Indiana from 1990-1999	3/16/2009	Cancelled on 4/23/2009
FOIA-2009-000198	Documents from February 2001 to the present that relate or refer to any labor disputes that have delayed completion of federal construction projects costing \$25 million or more	3/17/2009	Closed at HQ and transferred to the Savannah River Office on 7/6/2009
FOIA-2009-000199	Information related to DOE claim AR 131-91	3/17/2009	Closed at HQ and transferred to the NNSA Service Center on 3/25/2009
FOIA-2009-000200	General Counsel inquiry report involving allegations against a	3/17/2009	

the present related to the Material Control and Accountability program at LANL

FOIA-2009-000212	Copy of the contract lead from RFP #106508	3/25/2009	Closed at HQ and transferred to the Chicago Office on 4/1/2009
FOIA-2009-000215	Follow-on contract to DOE contract #DEAC01-03EH01015	3/25/2009	Closed on 7/7/2009
FOIA-2009-000216	Cost estimates prepared by the DOE since January 1, 2005 for the strategic petroleum reserve expansion site alternatives including Richton, MS, Stratton Ridge, TX Chacahoula, LA, Clovelly, LA, and Bruinsburg, MS	3/26/2009	Closed on 7/1/2009
FOIA-2009-000217	Specific correspondence between the DOE and Haley Barbour, Governor of Mississippi	3/26/2009	4/30/2009
FOIA-2009-000218	DOE contract #DEAM01-04ME09857	3/26/2009	Closed on 7/7/2009
FOIA-2009-000219	Copies of the NOIs posted and recently retracted on the Department's Fossil Energy website	3/27/2009	Closed at HQ and transferred to the NETL on 3/30/2009
FOIA-2009-000221	List of attendees for several Biodiesel/Renewable Diesel Work Group meetings	3/27/2009	Cancelled on 4/3/2009
FOIA-2009-000222	DOE contract #DEAC05-06OR23221	3/30/2009	Closed at HQ and transferred to the Oak Ridge Office on 4/2/2009
FOIA-2009-000223	Records related to a former DOE employee	3/30/2009	Closed on 4/22/2009
FOIA-2009-000224	Application submitted to DOE for the Loan Guarantee program by Unistar, Southern Company/Georgia Power, SCANA, and NRG	3/30/2009	Cancelled on 4/21/2009
FOIA-2009-000225	Grant application submitted by the Sacramento Clean Cities	3/30/2009	Closed at HQ and transferred to the

	Angeles Clean Cities Coalition for CNG buses		
FOIA-2009-000226	Information related to the geospatial locations of all coal fired electric power plants in the United States	3/30/2009	Closed on 4/14/2009
FOIA-2009-000227	List of public and private sector users of DOE sol-gel nano-structured composite energetic materials or manufacturing methods, prior to 2002	3/30/2009	Closed on 4/24/2009
FOIA-2009-000228	Job description of a security guard at the Mound facility during the 1960's	3/30/2009	Closed on 4/29/2009
FOIA-2009-000229	Correspondence between DOE and former Member of the House of Representatives Robert Portman from 1993 to 2007	3/30/2009	5/1/2009
FOIA-2009-000231	Grant application submitted by Verenium for the project to speed enzyme development for cellulosic ethanol production	3/31/2009	Closed at HQ and transferred to the Golden Field Office on 4/2/2009
FOIA-2009-000232	Contract between DOE and White Crane to provide rental equipment at the Savannah River Site	3/31/2009	Closed at HQ and transferred to the Savannah River Operations Office on 4/2/2009
FOIA-2009-000233	Information related to a former DOE employee	3/31/2009	Closed on 4/2/2009
FOIA-2009-000234	Log of FOIA requests from January 1, 2009 to the present	3/31/2009	Closed on 4/3/2009
FOIA-2009-000235	List of position titles and position locations of civilian DOE employees who the agency has designated as exempt from the Fair Labor Standards Act	4/1/2009	
FOIA-2009-000236	Pricing schedule of the successful contractor under RFP #181287	4/1/2009	Closed at HQ and transferred to the Richland Office on 4/2/2009
FOIA-2009-000237	RFP related to Nuclear Energy University Programs research and development solicitation process	4/1/2009	Closed on 4/3/2009

FOIA-2009-000239	Contracts governing the Savannah River Site in 2006 between DOE and Wackenhut for staffing of security, and all contracts and records for the DOE National Training Center on Kirtland Air Force Base for the SPOTC competition in June 2006	4/2/2009	Closed at HQ and transferred to the Savannah River Operations Office on 4/10/2009
FOIA-2009-000240	Information related to the DOE's Advanced Technology Vehicles Manufacturing program	4/3/2009	5/29/2009
FOIA-2009-000241	Information related to the Starfish Prime Nuclear Test on July 9, 1962	4/3/2009	Closed on 4/20/2009
FOIA-2009-000242	Correspondence between DOE and Congress that relate to oil contracts with Vitol and correspondence between DOE and Vitol from January 1, 2009 to the present	4/6/2009	Closed on 4/30/2009
FOIA-2009-000243	Correspondence between DOE and Congress that mention, discuss, or suggest how funds provided under the American Recovery and Reinvestment Act should be used	4/6/2009	Closed on 7/22/2009
FOIA-2009-000244	DOE contract #DEPS36-09GO99015	4/6/2009	Closed at HQ and transferred to the Golden Field Office on 4/8/2009
FOIA-2009-000245	List of individuals in the Office of Efficiency and Renewable Energy that are or were on flexi-place full time during or for any length of time between January 2000 and April 2009	4/7/2009	Closed on 6/5/2009
FOIA-2009-000246	DOE grant #DEPS26-07NT43119	4/7/2009	Closed at HQ and transferred to the NETL on 4/13/2009
FOIA-2009-000249	Information related to IG hotline case #I08ZH111	4/8/2009	Closed on 6/10/2009
FOIA-2009-000251	Application submitted by Solyndra Inc., in response to the	4/8/2009	5/29/2009

	Information submitted by Tesla Motors, Bright Automotive, and Fisker Automotive in response to the Advanced Technology Vehicles Manufacturing Incentive program	4/9/2009	
FOIA-2009-000255	Information related to an individual	4/9/2009	
FOIA-2009-000256	List of attendees for the EIA meeting entitled "A New Climate for Energy."	4/10/2009	Closed 5/13/2009
FOIA-2009-000257	Contract between DOE and KAPL/Lockheed Corporation executed under DOE contract #DEAC12-76SN00052	4/13/2009	Closed at HQ and transferred to the Naval Reactors Laboratory Field Office 4/14/2009
FOIA-2009-000258	Successful grant proposal submitted by any Indian Tribe under the Energy Efficiency and Conservation Block Grant program	4/13/2009	Closed on 6/2/2009
FOIA-2009-000260	Assessment of the Savannah River HR conducted by EM in the fall of 2008	4/13/2009	Closed on 4/23/2009
FOIA-2009-000261	List of congressionally directed spending for fiscal years 2007-2009 as well as any direction on the use of funds from the American Reinvestment and Recovery Act	4/13/2009	Closed on 5/27/2009
FOIA-2009-000262	List of all applicants who paid application fees and did not pay application fees in response to DE-FOA-0000005	4/13/2009	
FOIA-2009-000263	DOE contract #DEAM36-97EE73566	4/13/2009	Closed at HQ and transferred to the Golden Field Office on 4/17/2009
FOIA-2009-000264	Information related to an explosion at the metallurgy laboratory at the Sylvania Electric Products Company plant in Bayside, New York	4/13/2009	
FOIA-2009-000265	Information related to the Iowa Stored Energy Park project	4/13/2009	

	statements for William H. White, from 1992 through 1996		
FOIA-2009-000270	Documents related to meeting on July 26, 2006 between DOE officials, oil company representatives and Husayn Shahrastani, Iraq Minister of Oil	4/14/2009	Closed on 7/20/2009
FOIA-2009-000271	Applications submitted to DOE for loan guarantees from 2005 to October 4, 2007	4/15/2009	
FOIA-2009-000272	DOE contract #DEAC05-76RL01830	4/15/2009	Closed on 4/15/2009
FOIA-2009-000273	Copy of the loan application submitted by Solyndra, Inc., that was the basis for the DOE to provide to Solyndra loan guarantees totaling \$535 million	4/17/2009	
FOIA-2009-000274	Information related to the loan guarantee made to Solyndra, Inc	4/17/2009	Closed on 6/15/2009
FOIA-2009-000275	Applications received by DOE under Funding Opportunity #DE-FOA-0000026	4/17/2009	Closed at HQ and transferred to the NETL on 4/17/2009
FOIA-2009-000278	Information relating to the Advanced Light Water Reactor program, a research and development initiative launched in the mid 1980s by the Office of Nuclear Energy	4/20/2009	Cancelled on 5/7/2009
FOIA-2009-000280	Copies of all correspondence between the DOE and members of Congress from December 1, 2008 to March 15, 2009	4/21/2009	
FOIA-2009-000281	List of all telephone and/or facsimile numbers, and/or blocks of telephone and/or facsimile numbers held or controlled by the DOE during September 1999 within the area codes 602, 480 and 623	4/21/2009	Closed on 4/27/2009
FOIA-2009-000282	Names and professional qualifications of all persons involved with his claim process and dose reconstruction	4/21/2009	Closed on 5/22/2009
FOIA-2009-000283	Copy of the MOU, customer	4/21/2009	

	Department of Transportation related to transit benefit administration services and E.O. 13150		
FOIA-2009-000284	Information regarding any SBIR and STTR related to nano-sized energetic materials development and production prior to 2002	4/21/2009	Closed at HQ and transferred to the NNSA Service Center on 5/8/2009
FOIA-2009-000285	DOE contract #DEAC07-05ID14517	4/22/2009	Closed at HQ and transferred to the Idaho Field Office on 4/23/2009
FOIA-2009-000286	Information regarding the quantity, method and location of coal combustion waste disposal sites resulting from electric utility steam generating facilities	4/22/2009	Closed on 5/22/2009
FOIA-2009-000287	Information related to the Hanford Environmental Dose Reconstruction Project findings	4/23/2009	Closed at HQ and transferred to the Pacific Northwest Site Office on 4/30/2009
FOIA-2009-000288	Copy of a color image of the Tightrope test that took place two miles SSW of Johnston Island on November 4, 1962	4/23/2009	Closed at HQ and transferred to the NNSA Service Center on 5/14/2009
FOIA-2009-000290	List of contracts awarded to the American Disabled Veterans for coal and gasification research and development in 2009	4/23/2009	Closed on 5/13/2009
FOIA-2009-000291	Documents that relate or refer to the development and construction of Secure Energy's Decatur Facility	4/27/2009	
FOIA-2009-000292	Bids, contracts and other acquisition documents related to U.S. defense manufacturers receiving depleted uranium at no cost from the U.S. government	4/27/2009	Closed on 6/29/2009
FOIA-2009-000293	Comments received by the DOE in connection with the rulemaking effort entitled "Energy Conservation Standard Rulemaking for Residential Heating Products"	4/27/2009	6/30/2009

	for energy programs related to biomass and biofuel appropriated in Omnibus Spending Bills such as HR. 1105, and in annual budgets of the Department of Energy		
FOIA-2009-000295	Information on all recipients of the Innovative Technology Loan Guarantee Program	4/27/2009	Closed on 6/9/2009
FOIA-2009-000296	Application submitted by A123 Systems to the DOE for the Advanced Technology Vehicles Manufacturing Loan Program	4/28/2009	5/29/2009
FOIA-2009-000298	DOE's response to a letter from Mayor Gayle McLaughlin to Christopher Clayton, dated March 12, 2008	4/29/2009	Closed on 5/22/2009
FOIA-2009-000299	Copies of all task orders and fair opportunity decisions regarding various contracts	4/29/2009	Closed on 7/9/2009
FOIA-2009-000300	Information related to DOE's position regarding the Nuclear Fuel Complex in terms of IAEA safeguards	4/29/2009	Closed at HQ and transferred to the NNSA Service Center on 4/30/2009
FOIA-2009-000301	Correspondence between the DOE and Aerosys Inc. that relate to the Department's program for consumer products for central air conditioners and central air conditioning heat pumps	4/29/2009	
FOIA-2009-000302	Information related to a former DOE employee	4/30/2009	Closed on 5/29/2009
FOIA-2009-000305	Documents related to a cogeneration facility located at 550 Solano Way, Martinez, CA	4/30/2009	Cancelled on 5/11/2009
FOIA-2009-000306	License agreement between Sandia National Laboratories and Heliodyne Inc for U.S. patent #6300591	4/30/2009	Closed at HQ and transferred to the NNSA Service Center on 5/6/2009
FOIA-2009-000307	DOE contract #DEAC02-09CH11469	4/30/2009	Closed at HQ and transferred to the Chicago Office on 4/30/2009
FOIA-2009-000308	Information related to Energy	4/30/2009	



FOIA-2009-000309	Information related to the report entitled "Modern Shale Gas in the United States: A Primer"	5/1/2009	Closed on 7/1/2009
FOIA-2009-000310	Information related to the Project Rulison nuclear blast site	5/1/2009	6/15/2009
FOIA-2009-000311	Copy of Secretary Chu's schedule, and copies of correspondence between Secretary Chu or his staff and the staff of the following individuals, corporations and organizations: 1) Encana Oil and Gas; 2) BP; 3) Williams; 4) Exxon; 5) Chesapeake Energy; 6) Independent Petroleum Association of America; 7) American Petroleum Institute; 8) T. Boone Pickens; and 9) Randy Eresman from January 1, 2009 to May 1, 2009	5/4/2009	6/15/2009
FOIA-2009-000312	Documents containing states' initial applications to the DOE for State Energy Program ARRA funds	5/4/2009	Closed at HQ and transferred to the NETL on 6/24/2009
FOIA-2009-000314	Information related to the jettison of a Mark 4 nuclear bomb	5/4/2009	Closed at HQ and transferred to the NNSA Service Center on 5/14/2009
FOIA-2009-000316	Documents containing individual states' finalized energy plans for ARRA funding	5/5/2009	Closed at HQ and transferred to the NETL on 6/22/2009
FOIA-2009-000318	Information on the decision by DOE to drop its opposition to oil and gas development outside 40 acres surrounding the Project Rulison nuclear blast site	5/6/2009	Closed on 6/4/2009
FOIA-2009-000319	Copies of contracts between DOE and Sunedison for a project titled "Mesa Top PV"	5/6/2009	Closed at HQ and transferred to the Western Area Power Administration on 5/18/2009
FOIA-2009-000320	Copy of the DOE technical report titled, "U.S. Department of Energy High School Student	5/6/2009	Closed on 5/11/2009

	Assessment"		
FOIA-2009-000322	Copies of correspondence between the DOE and Congressman Pete Sessions and any member of his House staff from January 1, 1997 to the present	5/6/2009	6/30/2009
FOIA-2009-000323	Copies of all FOIA requests related to Congressman Chris Van Hollen from January 1, 2003 to the present	5/6/2009	Closed on 5/12/2009
FOIA-2009-000325	DOE contract #DEAC05-02OR22717	5/7/2009	Closed on 5/28/2009
FOIA-2009-000326	DOE contract #DEAC26-06NT42398	5/8/2009	Closed at HQ and transferred to the NNSA Service Center on 5/8/2009
FOIA-2009-000327	DOE contract #DEAC01-07IM00170	5/8/2009	Closed on 7/7/2009
FOIA-2009-000329	Copies of communications between the DOE and San Diego Gas and Electric, Sempra Energy, and other government agencies from December 2008 to the present that relate to the construction of the Sunrise Powerlink across the Cleveland National Forest in San Diego County	5/11/2009	Closed on 8/5/2009
FOIA-2009-000330	Documents concerning the testing, deployment, evaluation or dismantlement of the W-48 nuclear artillery shell	5/11/2009	Closed at HQ and transferred to the NNSA Service Center on 5/13/2009
FOIA-2009-000331	List of websites that are blocked for employees of the Department of Energy	5/11/2009	Closed on 6/10/2009
FOIA-2009-000332	Copies of loan applications submitted by Tesla Motors, Bright Automotive, and Fisker Automotive in response to the Advanced Technology Vehicles Manufacturing Incentive Program	5/11/2009	
FOIA-2009-000333	Copies of various reports from	5/11/2009	Closed at HQ and

	Obama's report to Congress on a plan to secure nuclear weapons, material, and expertise in the former Soviet Union		on 5/14/2009
FOIA-2009-000334	Copies of all comments submitted to the DOE in relation to the Department's Smart Grid Investment Grant Program and the Smart Grid Demonstration Projects Program	5/12/2009	
FOIA-2009-000338	Copies of all correspondence between the DOE and Eestor Inc., and Zenn Motor Company from May 13, 2008 to the present	5/13/2009	6/15/2009
FOIA-2009-000339	List of the applicants for the Advanced Technology Vehicles Manufacturing Loan Program	5/13/2009	
FOIA-2009-000343	Copy of the Limited Payability Cancellation report for refunds and credits for the undeliverable checks	5/14/2009	
FOIA-2009-000346	Information related to variations in power usage, perturbations or fluctuations in line demand, authorizations to enter protected airspace, or any anomaly on or near the power grid within a 25 mile radius from the Arkansas Nuclear One Plant for the 24 hour period of 5:40 p.m. on April 19, 2009 to 5:40 p.m. on April 20, 2009	5/14/2009	Closed on 6/2/2009
FOIA-2009-000347	Information regarding remediated sites at the Monument Valley UMTRA site	5/15/2009	7/1/2009
FOIA-2009-000348	Names of all firms that were coded as small businesses for the purposes of achieving the Department's small business contracting goal for FY06	5/15/2009	Closed on 6/25/2009
FOIA-2009-000350	Access to the Water Quality Data Base	5/18/2009	Closed at HQ and transferred to the NNSA Service Center

	and all modifications for the Super Energy Savings Performance Contracting project #488		transferred to the Richland Operations Office on 5/26/2009
FOIA-2009-000352	Energy efficiency reports and materials related to Schaumburg High School in Schaumburg, IL	5/19/2009	Closed on 6/17/2009
FOIA-2009-000353	Information related to a former DOE employee	5/19/2009	Closed on 6/17/2009
FOIA-2009-000355	Copies of classified documents that discuss the plutonium and RTG that was launched with Apollo missions 12 through 17	5/19/2009	
FOIA-2009-000356	Copies of correspondence between DOE and Congressman Eric Cantor from January 1, 2000 to the present, and Congressman John Boehner from January 1, 1990 to the present	5/19/2009	6/19/2009
FOIA-2009-000358	List of companies that have submitted applications for solicitation numbers DE-FOA-0000026, DE-FOA-0000028 and DE-FOA-0000036	5/20/2009	Closed at HQ and transferred to the National Energy Technology Laboratory on 6/5/2009
FOIA-2009-000359	Correspondence regarding the expenditure of funds made available by the American Recovery and Reinvestment Act	5/20/2009	
FOIA-2009-000360	Copy of each weekly Departmental report for the DOE from January 1, 2009 to May 1, 2009	5/20/2009	
FOIA-2009-000362	Information related to DOE vacancy announcement #IDOE-08-ES-CF-0111	5/21/2009	Closed on 6/24/2009
FOIA-2009-000363	Information related to DOE vacancy announcement #DOE-08-ES-Has-3-217A	5/21/2009	Closed on 6/24/2009
FOIA-2009-000366	Information related to DOE contract #DEAC05-76RL01830	5/22/2009	Closed at HQ and transferred to the Pacific Northwest Site Office on 5/26/2009
FOIA-2009-000367	Information related to DOE	5/22/2009	Closed at HQ and

			Technology Laboratory on 5/27/2009
FOIA-2009-000368	Information related to a former DOE employee	5/22/2009	Closed on 7/9/2009
FOIA-2009-000369	Copies of resumes of all persons appointed to a Schedule C position, and all non-career members of the Senior Executive Service from January 20, 2001 to May 4, 2009	5/22/2009	Closed on 7/9/2009
FOIA-2009-000370	Copy an agreement between Iran and Russia related to returning spent fuel to Russia	5/26/2009	Closed on 6/5/2009
FOIA-2009-000371	Information related to the basis of flouting the norms of the NPT while offering India participation in the IUEC	5/26/2009	Closed on 6/5/2009
FOIA-2009-000372	Information related to 1) expelling of the IAEA inspectors and US monitors from the Yongbyon nuclear complex by North Korea; and 2) a copy of the official statement on the current operational position of the Yongbyon nuclear complex	5/26/2009	Closed on 6/5/2009
FOIA-2009-000373	Information related to a grass fire at the Mound Laboratory on March 11, 1961	5/26/2009	Closed on 6/15/2009
FOIA-2009-000374	List of applicants who have filed for the Recovery Act – Electric Drive Vehicle Battery and Component Manufacturing Initiative	5/26/2009	Closed at HQ and transferred to the National Energy Technology Laboratory on 6/3/2009
FOIA-2009-000375	Copies of all interview notes, related e-mails and the results related to an investigation or workplace review audit of Office of River Protection behavioral issues conducted by EM-40	5/26/2009	Closed on 7/8/2009
FOIA-2009-000376	Information related to various DOE job announcements	5/26/2009	Closed on 7/9/2009
FOIA-2009-000377	Copies of the presentation materials provided by Eester Incorporated at the 17 <sup>th</sup> NREL	5/27/2009	Closed at HQ and transferred to the Golden Field Office on

FOIA-2009-000378	DOE response to a letter addressed to Steven Chu by various Senators on April 29, 2009, regarding the Yucca Mountain Site	5/29/2009	Closed on 7/1/2009
FOIA-2009-000379	Copies of any communications between the DOE and Rohm & Haas regarding a letter from Steve Skubel to James Vouros, dated September 8, 2008	5/29/2009	Closed on 7/16/2009
FOIA-2009-000380	Information related to a contract awarded to ICF International under the Technical Economic and Policy Analysis of Transportation and the Environment requirement	5/29/2009	Cancelled on 5/8/2009
FOIA-2009-000381	Information related to DOE contract #DEAM01-06IM00054	5/29/2009	
FOIA-2009-000382	Copy of a grant proposal titled "Genetic Improvements of Switchgrass," submitted by the University of RI	5/29/2009	Closed at HQ and transferred to the Golden Field Office on 6/15/2009
FOIA-2009-000383	Copies of communications between various EE employees regarding detail to Las Vegas	5/29/2009	Closed on 8/3/2009
FOIA-2009-000386	Copy of any handouts, agendas or meeting minutes in the possession of the DOE and related to meetings with the Interagency Council on Printing and Publications Services	6/2/2009	Closed on 6/16/2009
FOIA-2009-000387	Copies of directives pertaining to IT Portfolio Management guidance under mandate from the Clinger-Cohen Act of 1996 and OMB Circular A-130	6/2/2009	Closed on 6/9/2009
FOIA-2009-000389	List of the names of the prime applicant and any sub-applicants who submitted applications in response to Topic Area 2 and Topic Area 3 of funding opportunity announcement #DEPS36-09GO99009	6/2/2009	Closed at HQ and transferred to the Golden Field Office on 6/4/2009
FOIA-2009-000390	Copies of correspondence	6/2/2009	

	Representative Rob Bishop, Representative Jason Chaffetz, and Representative Jim Matheson regarding the expenditure of funds made available by the American Recovery and Reinvestment Act		
FOIA-2009-000391	Information related to the number of EE employees that were on detail for the last three years	6/2/2009	Closed on 8/3/2009
FOIA-2009-000392	Copy of the conditional commitment given to Solyndra, Inc. under the loan guarantee program	6/2/2009	
FOIA-2009-000394	Copies of the responsive documents provided by the DOE for 11 FOIA requests that are currently being processed	6/3/2009	Closed on 7/9/2009
FOIA-2009-000395	Information related to the amount of ammunition used by the DOE for 2008	6/3/2009	Closed on 7/22/2009
FOIA-2009-000396	Copies of correspondence between the DOE and Robert F. McDonnell from 1989 to 2009	6/3/2009	
FOIA-2009-000397	Copies of correspondence between the DOE and the following Congressmen: 1) Anh Cao, 2) Michael McCaul, 3) Mike D. Rogers, 4) Patrick McHenry, 5) Brett Guthrie, 6) Randy Forbes, 7) John Culberson, 8) Vern Buchanan, 9) Zach Wamp, 10) Tom Rooney, and 11) Ileana Ros-Lehtinen	6/3/2009	
FOIA-2009-000398	Information related to the Atlas property	6/3/2009	
FOIA-2009-000399	Copies of all applications for funding submitted to the Department's Advanced Research Projects Agency - Energy under funding opportunity #DE-FOA-0000065	6/3/2009	Cancelled on 6/9/2009
FOIA-2009-000401	Copy of all form 767's filed by	6/4/2009	Closed on 7/8/2009

FOIA-2009-000402	Copies of all applications submitted to the DOE under funding opportunity #DE-FOA-0000028	6/4/2009	Closed at HQ and transferred to the National Energy Technology Laboratory on 6/5/2009
FOIA-2009-000403	Copies of all applications submitted to the Advanced Technology Vehicles Manufacturing Incentive Program	6/4/2009	
FOIA-2009-000404	Copy of a report entitled "Radiological Survey of the Former Vitro Rare Metals Plant Canonsburg, Pennsylvania Phase I," dated April 1977	6/5/2009	Closed at HQ and transferred to the Oak Ridge Office on 6/5/2009
FOIA-2009-000405	Copy of the subcontractor training list for the Paducah Gaseous Diffusion Plant	6/5/2009	Closed at HQ and transferred to the Oak Ridge Office and the EMCBC on 6/5/2009
FOIA-2009-000406	List of DOE contracts that were performed by Rust Engineering and Raytheon Engineering and Constructors on behalf of DOE that were managed by Oak Ridge program officials for the Paducah Gaseous Diffusion Plant site	6/5/2009	Closed at HQ and transferred to the Oak Ridge Office on 6/5/2009
FOIA-2009-000407	Information related to DOE contract #DEAC01-07SO20219	6/5/2009	Closed on 6/30/2009
FOIA-2009-000408	information related to DOE contract #DEAC02-07ER35878	6/8/2009	Closed at HQ and transferred to the Chicago Office on 6/10/2009
FOIA-2009-000409	copies of the applications submitted by Quantum Fuel Systems Technology and Fisker Automotive to the DOE under the Advanced Technology Vehicles Manufacturing Incentive Program	6/8/2009	
FOIA-2009-000410	contract between DOE and Theta Pro2Serve Management Company	6/8/2009	Closed at HQ and transferred to the EMCBC on 6/13/2009
FOIA-2009-000411	contract between DOE and Swift	6/8/2009	Closed on 6/18/2009



FOIA-2009-000412	copy of the delivery order and all modifications to the 2005 Super Energy Savings Performance Contracting project #298	6/8/2008	Closed at HQ and transferred to the Golden Field Office on 6/22/2009
FOIA-2009-000414	copy of the contract between DOE and Equifax Credit Information Services	6/8/2009	
FOIA-2009-000417	information related to DOE contract #DEAT01-04NE23856	6/9/2009	
FOIA-2009-000418	copies of all phone calls, letters, e-mails or other communications from December 1, 2008 to June 9, 2009 from members of Congress and the DOE regarding provisions or potential future provisions of the American Recovery and Reinvestment Act that deal with nuclear cleanup sites	6/10/2009	
FOIA-2009-000421	copies of all contracts between DOE and security contractors in Washington, DC, Virginia and Maryland	6/11/2009	
FOIA-2009-000422	information related to DOE vacancy announcement #08HQPN-NE33107	6/11/2009	Closed on 7/14/2009
FOIA-2009-000424	copies of documents that reflect monies that have been made available to the Virgin Islands for energy programs from 2003 to 2008	6/11/2009	
FOIA-2009-000425	information in the possession of Bradley Poston that relates to the ARPA-E program and other subject matters	6/11/2009	Closed on 7/9/2009
FOIA-2009-000427	GIS data that displays all power plants and transmission lines in the United States	6/11/2009	Closed on 7/2/2009
FOIA-2009-000428	names of all entities that applied for loan guarantees under the DOE Loan Guarantee Program	6/11/2009	
FOIA-2009-000429	contract between DOE, the Navy and GE that is related to the development of the S8G reactor	6/11/2009	Closed at HQ and transferred to the Naval Reactors Laboratory

FOIA-2009-000430	copy of a memo from Robin Petrusak, ICF Consulting, addressed to Nancy Johnson at DOE, entitled "Documentation of Estimated Potential Cost of Compliance for Toxic Release Inventory Reporting and Hydraulic Fracturing," dated August 19, 1999	6/12/2009	Closed on 7/1/2009
FOIA-2009-000431	documents on the Iraqi oil and gas sector that relate to Secretary Bodman's visit to Iraq on July 18, 2006	6/12/2009	
FOIA-2009-000432	DOE contract #DF10404-93AL83300	6/12/2009	Closed at HQ and transferred to the NNSA Service Center on 6/19/2009
FOIA-2009-000433	copies of communications from December 1, 2008 to February 18, 2009 from employees or officials of or lobbyists for private contractors involved in nuclear cleanup to the DOE regarding provisions or potential provisions under the American Recovery and Reinvestment Act	6/15/2009	
FOIA-2009-000434	logs of correspondence from January 1, 2004 to August 9, 2005 related to the Department's loan guarantee program	6/15/2009	
FOIA-2009-000435	copy of the supervisory and risk management practices on a global basis while reducing nuclear arsenal	6/15/2009	Closed on 6/25/2009
FOIA-2009-000436	copies of all payment bonds issued or received in connection with DOE contract #DEAC02-98CH10886	6/15/2009	Closed at HQ and transferred to the Chicago Office on 6/16/2009
FOIA-2009-000437	copies of correspondence between the DOE and the following Congressmen: 1) Don Young, 2) Gary Miller, and 3) Denny Rehberg	6/16/2009	
FOIA-2009-000438	copies of correspondence	6/16/2009	

	Gerlach, 2) Charlie Dent, 3) Peter King, and 4) E. Scott Garrett		
FOIA-2009-000439	copies of correspondence between the DOE and following Congressmen: 1) Paul Ryan, 2) Mike Turner, 3) Steve King, and 4) Blaine Luetkemeyer	6/16/2009	
FOIA-2009-000440	copies of correspondence between the DOE and the following Congressmen: 1) Bill Young, 2) Adam Putnam, 3) Lincoln Diaz-Balart, 4) Henry Brown, and 5) Joe Wilson	6/16/2009	
FOIA-2009-000441	name of the individual selected for vacancy announcement #09-DOECFO-006-2	6/16/2009	Closed on 7/22/2009
FOIA-2009-000445	log of FOIA requests made by Brad Sparks from January 1, 1999 to June 15, 2009	6/16/2009	Closed on 6/22/2009
FOIA-2009-000446	copies of communications between DOE Headquarters and Paducah Remediation Services from January 1, 2008 to June 15, 2009	6/16/2009	Closed at HQ and transferred to the EMCBC on 6/23/2009
FOIA-2009-000447	information on the certification for DOE vacancy announcement #HQ-09-DE-01-OE-0066	6/16/2009	Closed on 8/3/2009
FOIA-2009-000448	copies of all training, security clearance, exposure records and timesheet reports of an individual	6/17/2009	Closed at HQ and transferred to the Oak Ridge Office on 6/18/2009
FOIA-2009-000449	copies of employment records of an individual	6/17/2009	Closed at HQ and transferred to the Oak Ridge Office on 6/18/2009
FOIA-2009-000450	copies of any contracts, purchase orders or awards issued for the purchase or acquisition of any SSL Server Certificates during FY 2008 and FY 2009	6/17/2009	Closed on 7/22/2009
FOIA-2009-000451	copy of the RAC report written by John Till in the 1980's	6/18/2009	Closed on 6/26/2009
FOIA-2009-000453	copies of A-133 auditor reports	6/18/2009	

FOIA-2009-000454	copies of the bid results for RFP#9-JL76-P-00248-00	6/18/2009	Closed at HQ and transferred to the Chicago Office on 6/22/2009
FOIA-2009-000455	copies of communications between the Office of Fossil Energy and any of its contractors regarding contracts for technical studies issued pursuant to section 999 of the Energy Policy Act of 2005	6/18/2009	Closed at HQ and transferred to the NETL on 7/17/2009
FOIA-2009-000456	copies of congressional correspondence regarding the \$2/4 billion in funding provided under the Recovery Act to support next-generation plug-in hybrid electric vehicles and their advanced battery components	6/18/2009	Closed on 7/24/2009
FOIA-2009-000457	records that contain occupational exposure data for beryllium	6/19/2009	
FOIA-2009-000460	copy of the Annual Weapons Program Report for 2008	6/22/2009	Closed at HQ and transferred to the NNSA Service Center on 6/23/2009
FOIA-2009-000461	copy of the Sandia Weapon Review – Special DNA Issue: Nuclear Weapon Characteristics Handbook	6/22/2009	Closed at HQ and transferred to the NNSA Service Center on 6/23/2009
FOIA-2009-000462	copy of the Defense Information Weapon Data Glossary and Thesaurus	6/22/2009	Closed at HQ and transferred to the Office of Scientific and Technical Information on 7/1/2009
FOIA-2009-000463	information related to the export from Norway of "hard water" used for making nuclear weapons	6/22/2009	Closed at HQ and transferred to the Savannah River Operations Office on 6/25/2009
FOIA-2009-000464	copy of all travel vouchers and expense reports for various trips taken by Secretary of Energy Steven Chu	6/22/2009	
FOIA-2009-000465	document entitled "Potential Economic and Energy Supply	6/22/2009	Closed on 7/16/2009

	Applicable to the U.S. Oil and Gas Exploration and Production Industry," prepared by Advanced Resources International for the Office of Fossil Energy		
FOIA-2009-000466	information related to the creation of a clean energy park at the Department's Piketon Site	6/22/2009	
FOIA-2009-000467	copy of the new anti-proliferation sanctions on North Korea	6/22/2009	Closed on 7/2/2009
FOIA-2009-000468	copies of all reports submitted to the Intelligence Oversight Board pursuant to section 2.4 of Executive Order 12863 from February 25, 2008 to February 29, 2009	6/22/2009	
FOIA-2009-000469	copies of correspondence between the DOE and various members of Congress	6/23/2009	
FOIA-2009-000470	copies of correspondence between the DOE and various members of Congress	6/23/2009	
FOIA-2009-000471	copies of documents related to patents to develop and commercialize silex's advanced laser-based uranium enrichment technology	6/23/2009	
FOIA-2009-000472	copy of the Title IX compliance report conducted by the DOE at the University of Washington-Seattle in 2008	6/23/2009	Closed on 7/15/2009
FOIA-2009-000473	copies of documents related to the use of radionuclides in any instrumentation package sent into space	6/23/2009	Closed on 8/4/2009
FOIA-2009-000474	information related to DOE solicitation #DESOL0000532	6/24/2009	Closed on 7/8/2009
FOIA-2009-000475	copies of correspondence between the DOE and Congressman Tom McClintock	6/24/2009	
FOIA-2009-000476	copies of documents related to the St. Albans Naval Hospital in Jamaica, New York	6/24/2009	Closed on 7/16/2009

	and the development of advanced batteries		NETL on 7/14/2009
FOIA-2009-000479	copy of the Qwest contract for the Network Revitalization Project at Sandia National Laboratories	6/24/2009	Closed at HQ and transferred to the NNSA Service Center on 6/26/2009
FOIA-2009-000505	documents that relate to the failure of a covered product or equipment to meet an applicable energy or water conservation standard, design requirement, or labeling requirement imposed by the Energy Policy and Conservation Act	6/25/2009	
FOIA-2009-000506	information related to DOE contract #DEAC65-06WG32110	6/25/2009	Closed at HQ and transferred to the Western Area Power Administration on 6/25/2009
FOIA-2009-000507	copies of correspondence between the DOE and various members of Congress	6/25/2009	
FOIA-2009-000510	declassified copy of Major John Dean's Broken Arrow list	6/25/2009	Closed at HQ and transferred to the NNSA Service Center on 6/25/2009
FOIA-2009-000511	copies of, among other things, documents that relate to the impact on the Department's Civilian Radioactive Waste Management Program and on the Department's ability to meet its obligations under the Nuclear Waste Policy Act, as amended, of discontinuing engineering work in support of the Yucca Mountain radioactive waste repository	6/25/2009	
FOIA-2009-000513	copies of all records between the DOE and Moncrief Oil International, Moncrief International Development & Production, Occidental Petroleum Company, and	6/29/2009	

	Gazprom, Zapsibgazprom, and Severneftegazprom companies or the importation of liquefied natural gas from Russia into the United States		
FOIA-2009-000514	copies of the application submitted by Nissan, Tesla and Ford Motor Company for the Advanced Technology Vehicles Manufacturing Loan guarantee	6/30/2009	
FOIA-2009-000515	copy of the non-confidential pages of the application submitted by Tesla for the Advanced Technology Vehicles Manufacturing Loan guarantee	6/30/2009	
FOIA-2009-000516	information related to the Revolving Loan Fund, a federal fund being handled by the Dixie Electric Corporation	6/30/2009	Closed on 7/10/2009
FOIA-2009-000517	copy of the database that reflects web visits by agency computer users as recorded by web filtering software	6/30/2009	
FOIA-2009-000520	loan application submission receipt dates and applicant names for the loan applications due December 31, 2008 and submitted to the DOE for the Advanced Technology Vehicles Manufacturing Incentive Program	6/30/2009	
FOIA-2009-000521	copy of the proposal to the DOE for the Miamisburg Closure Project	6/30/2009	Closed at HQ and transferred to the EMCBC on 7/8/2009
FOIA-2009-000523	names of contractors and subcontractors who worked for the AEC and were associated with the construction of AEC facilities from 1941 through 1980 in Oak Ridge, Tennessee	6/30/2009	Closed at HQ and transferred to the Oak Ridge Office on 7/1/2009
FOIA-2009-000529	information related to the DOE vacancy announcement for an attorney-advisor	7/1/2009	
FOIA-2009-000531	correspondence related to the	7/6/2009	

	Department's commemorative book titled "Decade of Discovery"		
FOIA-2009-000532	copy of the investigation conducted by the Office of Health Studies related to brain cancers among DOE workers employed at the Forrestal building	7/6/2009	Closed on 7/29/2009
FOIA-2009-000533	copy of file document #2007-IC-CHOO-01625	7/7/2009	
FOIA-2009-000534	copy of all supporting statements referred to in a letter from Charles Marquez, dated July 2, 2009	7/7/2009	Closed at HQ and transferred to the Western Area Power Administration on 7/9/2009
FOIA-2009-000535	copies of software packages that were attached to a letter from M.K. Butler to Ms. Buckner, dated April 5, 2001	7/7/2009	Closed at HQ and transferred to OSTI on 7/13/2009
FOIA-2009-000536	copies of all concept papers submitted to DOE regarding funding opportunity announcement #DE-FOA-0000065	7/7/2009	Cancelled on 7/13/2009
FOIA-2009-000537	information related to solicitation #DERP52-09NA00000	7/7/2009	Closed at HQ and transferred to the NNSA Service Center on 7/17/2009
FOIA-2009-000538	information related to the NNSA IT support and services contract held by Raytheon	7/7/2009	Closed at HQ and transferred to the NNSA Service Center no 7/17/2009
FOIA-2009-000539	information related to the operation and/or closure of the Ashland sites	7/7/2009	
FOIA-2009-000540	correspondence logs for all communications between members of Congress and the DOE from July 1, 2008 to the present	7/8/2009	
FOIA-2009-000541	information related to DOE contract #DEAC05-00OR22800	7/8/2009	Closed at HQ and transferred to the NNSA Service Center



	privately funded travel by DOE employees from July 1, 2008 to the present		
FOIA-2009-000543	list that reflects individuals and companies that have applied for alternative energy funds and whether they were accepted or not	7/8/2009	Closed on 7/15/2009
FOIA-2009-000546	copies of financial disclosure statements that were filed from July 1, 2008 to the present	7/8/2009	Closed on 7/21/2009
FOIA-2009-000547	copies of any applications submitted to the Ethics Officer to perform outside work	7/8/2009	
FOIA-2009-000548	information related to a former DOE employee	7/8/2009	Closed on 8/7/2009
FOIA-2009-000549	classification logs for technical reports published by the Los Alamos National Laboratory from July 1, 1947 to December 31, 1947 that remain restricted and classified	7/9/2009	Closed at HQ and transferred to the NNSA Service Center on 7/17/2009
FOIA-2009-000552	information related to the change of designation of General Electrics from an Atomic Weapons Employer to a simple DOE site	7/10/2009	
FOIA-2009-000554	evaluations of liability with regard to the long term disposal of depleted uranium conversion product from the Department's inventory of depleted uranium hexafluoride	7/13/2009	
FOIA-2009-000555	information related to any steps taken by the IAEA to inspect the immediate nuclear considerations and assistance with India and Pakistan	7/13/2009	Closed on 7/17/2009
FOIA-2009-000556	information related to the Security and Prosperity Partnership	7/13/2009	
FOIA-2009-000557	correspondence to or from Bill White during his capacity as Deputy Secretary of Energy	7/14/2009	

FOIA-2009-000558	copies of the loan applications submitted by Tesla Motors, Ford and Nissan	7/14/2009	
FOIA-2009-000559	information related to DOE contract #DEAT01-03FE68208	7/14/2009	
FOIA-2009-000560	information related to the Department's decision that the GE Evendale facility would no longer be classified as an Atomic Weapons Employer	7/15/2009	
FOIA-2009-000562	information related to a former DOE employee	7/15/2009	Closed on 8/7/2009
FOIA-2009-000563	copies of handbooks, guides, manuals or other writings that detail the policies and procedures for: 1) employees responsible for fueling, maintaining, driving, and washing GSA Fleet vehicles; 2) employees authorized to use a GSA Fleet vehicle credit card or any other government issued credit card, including activation steps and purchase guidelines; and 3) employees seeking reimbursement for work-related expenses	7/15/2009	Closed on 7/24/2009
FOIA-2009-000569	copies of position descriptions of all current DOE FOIA Officers	7/15/2009	
FOIA-2009-000570	copies of all applications submitted under the cash grants program created by section 1603 of the American Recovery and Reinvestment Act of 2009	7/15/2009	Closed on 7/21/2009
FOIA-2009-000571	copy of the contract between the NNSA and Randolph Construction Services to provide a central alarm station	7/15/2009	Closed at HQ and transferred to the NNSA Service Center on 7/17/2009
FOIA-2009-000572	meeting minutes and agendas for meetings of the INTERFUEL group	7/15/2009	Closed on 7/27/2009
FOIA-2009-000573	raw detail on the calculation of Stream Flow, Hydraulic Head, and Power Potential for the	7/16/2009	Closed at HQ and transferred to the Idaho Operations Office on

FOIA-2009-000575	documents related to the last shipment of U.S. non-pit surplus weapons-grade plutonium from the Department's Hanford site in Washington State to the Savannah River Site	7/16/2009	Closed on 8/3/2009
FOIA-2009-000576	information related to DOE contract #26301D0084	7/16/2009	Closed at HQ and transferred to the NNSA Service Center on 7/17/2009
FOIA-2009-000577	records related to how many property owners have had their property rights terminated as a result of a utility company exercising their right to access their property	7/16/2009	
FOIA-2009-000578	information related to DOE contract #DEBP0000598	7/16/2009	Closed at HQ and transferred to the Richland Office on 7/20/2009
FOIA-2009-000579	copy of the contract between the DOE and New Energy Corporation that was closed on June 5, 2009	7/16/2009	Closed at HQ and transferred to the Golden Field Office on 7/24/2009
FOIA-2009-000580	copies of all applications submitted under DE-FOA-0000026	7/16/2009	Closed at HQ and transferred to the NETL on 7/17/2009
FOIA-2009-000581	information related to beryllium activities at the Lawrence Livermore National Laboratory	7/16/2009	
FOIA-2009-000582	documents related to the Exelon Generation Company's Morris, IL facility and the Unitech Services Group's facility located in Morris, IL	7/16/2009	
FOIA-2009-000583	public comments received by DOE in response to the notice of rulemaking it proposed concerning the Weatherization Assistance Program for Low-Income Persons	7/17/2009	Closed on 8/7/2009
FOIA-2009-000584	copies of all congressional correspondence between the DOE and any member of	7/20/2009	

to the Recovery Act or stimulus money

FOIA-2009-000585	documents related to DOE policy and procedures regarding health privacy of employees at DOE national laboratories and of policy applying to employees of national laboratories that develop disabilities while employed at a national laboratory	7/20/2009	
FOIA-2009-000586	copies of contracts for Bechtel Power Corporation, and Johnson Controls at the Hanford Nuclear Facility from 1960 to 1980	7/20/2009	Closed at HQ and transferred to the Richland Office on 7/21/2009
FOIA-2009-000587	copies of employment records of a former employee of Kaiser/Huico at the Hanford Nuclear Facility from 1962 to 1976	7/20/2009	Closed at HQ and transferred to the Richland Office on 7/21/2009
FOIA-2009-000588	copies of contracts for various companies at the Hanford Nuclear Facility from 1960 to 1980	7/20/2009	Closed at HQ and transferred to the Richland Office on 7/21/2009
FOIA-2009-000589	copy of a letter to M. Kluse from R. M. Kilbury, PNSO, dated September 24, 2008	7/20/2009	Closed at HQ and transferred to the PNSO on 7/24/2009
FOIA-2009-000590	copies of internal technical reports for the DOE Grand Junction office that contain radiological monitoring data for the buildings on the sit for the years 1984 through 1992	7/20/2009	
FOIA-2009-000591	detailed account of all funds appropriated to the Office of Science for bio-fuel and bio-energy research and development	7/20/2009	
FOIA-2009-000592	account of all funding appropriated for research and development of woody biomass based bio-energy and bio-fuel programs	7/20/2009	
FOIA-2009-000597	list of subcontractors who have	7/22/2009	Closed on 7/31/2009

	DOE and GTS Wellco/Praxair		transferred to the Chicago Office on 7/27/2009
FOIA-2009-000599	correspondence between the DOE and various congressmen	7/22/2009	
FOIA-2009-000600	copies of correspondence between the DOE and various Senators and Representatives from January 1, 2003 to the present	7/22/2009	
FOIA-2009-000601	information related to the workforce level, including subcontractors of Paducah Remediation Services, as of July 1, 2009	7/23/2009	Closed at HQ and transferred to the EMCBC on 7/27/2009
FOIA-2009-000602	documents received by or generated by the Yucca Mountain Project OCRWM Concerns Program that contains the name or pertain to an individual since June 2008	7/23/2009	
FOIA-2009-000603	records related to the Building Trades National Medical Screening Program	7/24/2009	
FOIA-2009-000604	copy of the DCAA audit #6381-2009B17900002 and all correspondence between the Golden Field Office and the American Iron Steel Institute regarding the audit	7/24/2009	Closed at HQ and transferred to the Golden Field Office on 7/31/2009
FOIA-2009-000605	names and contact information for all primary and secondary contacts for Energy Saving Performance Contracts at all Federal agencies	7/24/2009	Closed on 8/7/2009
FOIA-2009-000606	information related to a former DOE employee	7/24/2009	Closed at HQ and transferred to the NNSA Service Center on 7/31/2009
FOIA-2009-000609	cost numbers, both overall and per page, of documents withdrawn from public access from December 31, 2006 to December 31, 2008, under the	7/24/2009	

	DOE and Tim Bishop, Steve Israel, Peter King, Kristin Gillibrand, and Chuck Schumer from February 1, 2009 to the present that is related to the American Recovery and Reinvestment Act or stimulus application submitted by Zap Motor Manufacturing in response to the Advanced Technology Vehicles Manufacturing program	7/27/2009	
FOIA-2009-000611			
FOIA-2009-000612	copies of various reports of the Inspector General	7/27/2009	
FOIA-2009-000613	copies of the top five rated applications funded under the Smart Grid Investment Grant program	7/27/2009	Closed on 8/5/2009
FOIA-2009-000614	copies of the application, evaluations, due diligence materials, term sheet, and underwriting for Nordic Wind Power related to the Loan Guarantee Program	7/27/2009	
FOIA-2009-000616	copies of all e-mails sent by a DOE employee from October 1, 2008 to the present	7/28/2009	
FOIA-2009-000617	line item budget figures for Advisory and Assistance Services and Systems Engineering and Technical Assistance for FY06, FY07, and FY08	7/28/2009	
FOIA-2009-000618	correspondence between the DOE and various media organizations	7/28/2009	
FOIA-2009-000619	information related to the nuclear power plant Loan Guarantee program	7/28/2009	
FOIA-2009-000620	documents authored by or relating to the work of advisers to the Iraqi Oil Ministry who have been seconded, provided or contracted by the DOE since	7/29/2009	

	DOE political appointees who were appointed during the Obama administration		
FOIA-2009-000622	information related to several IG hotline complaints	8/3/2009	
FOIA-2009-000624	copy of the current contract for locksmith services at DOE Headquarters	8/3/2009	
FOIA-2009-000625	copy of a letter from DOE Secretary Bill Richardson to workers apologizing to them for DOE making them sick	8/3/2009	
FOIA-2009-000626	copy of the winning proposal for DOE RFP #DEPS26-09NT01236-04	8/3/2009	Closed at HQ and transferred to NETL on 8/5/2009
FOIA-2009-000627	copies of various NNSA reports	8/3/2009	Closed at HQ and transferred to the NNSA Service Center on 8/3/2009
FOIA-2009-000628	list of concept paper titles and authors, including submission date, and a copy of the ARPA-E response to the concept paper	8/3/2009	
FOIA-2009-000629	copies of, among other things, all IG investigations related to the NETL from February 1, 2009 to the present	8/3/2009	
FOIA-2009-000630	documents related to the DOE decision in 2000 or 2001 to award a contract to Westinghouse Tru Solutions for operation of the Waste Isolation Pilot Plant	8/3/2009	Closed at HQ and transferred to the CBFO on 8/5/2009
FOIA-2009-000631	copies of DOE contract #DEAF65-08WN79294 and #DEAC65-06WN73135	8/3/2009	Closed at HQ and transferred to the WAPA on 8/4/2009
FOIA-2009-000632	copies of the abstracts of all applications for funding submitted to the DOE ARPA-E that have advanced to the second round of the application selection process	8/3/2009	
FOIA-2009-000633	documents pertaining to an investigation by the IG and the	8/4/2009	

	companies in exchange for kickbacks		
FOIA-2009-000636	copies of all railroad and truck transportation logs, shipping papers, shipping manifests, etc... for any equipment shipped from AEC facilities such as Savannah River and Oak Ridge to the Paducah Gaseous Diffusion Plant from January 1951 to July 1952	8/4/2009	
FOIA-2009-000637	copies of written assessments by DOE staff of USEC's American Centrifuge technology that have been completed in the past six months	8/4/2009	
FOIA-2009-000638	copies of the conformed contracts for the management and operation of the Oak Ridge National Laboratory, Sandia National Laboratory, the Pantex Plant, and the Y-12 Plant	8/5/2009	Closed at HQ and transferred to the Oak Ridge Office on 8/5/2009
FOIA-2009-000639	copies of all information sent to the DOE on behalf of the State of Tennessee relative to American Recovery and Reinvestment Act of 2009 funds for the State Energy Program	8/5/2009	
FOIA-2009-000640	list of the five most expensive international airline tickets purchased by agency employees traveling on official business during FY08 and a copy of the five largest international travel reimbursements from FY08	8/5/2009	
FOIA-2009-000641	copies of the DOE's reporting to the Equal Employment Opportunity Commission of all informal and formal EEO complaints since January 1, 1999	8/5/2009	
FOIA-2009-000642	five most expensive international travel airline tickets and destinations purchased by or for DOE staff for FY08 to the	8/5/2009	



	submitted by DOE staff and its leadership from FY08 to the present		
FOIA-2009-000643	copies of the responses to DE-FOA-0000085	8/6/2009	Closed at HQ and transferred to the Golden Field Office on 8/7/2009
FOIA-2009-000645	information related to DOE contract #DEAD65-09WA40508	8/6/2009	Closed at HQ and transferred to the WAPA on 8/7/2009
FOIA-2009-000646	information related to the National Academies study committee that issued the report entitled "America's Energy Future: Electricity from Renewables; Technology Opportunities, Risks, and Tradeoffs"	8/6/2009	
FOIA-2009-000647	copies of all studies and analyses from January 1, 2001 to December 31, 2002 produced by the centrifuge enrichment department at the Oak Ridge Laboratory concerning the potential use of aluminum tubes for uranium enrichment	8/6/2009	
FOIA-2009-000649	copy of all documents pertaining to Aaron Million, Million Resources Conservation Group or the Flaming Gorge Pipeline	8/7/2009	



**membership**

**FINDING OF NO SIGNIFICANT IMPACT**  
**DEPARTMENT OF ENERGY LOAN AND GRANT TO A123 SYSTEMS, INC., FOR**  
**VERTICALLY INTEGRATED MASS PRODUCTION OF AUTOMOTIVE-CLASS**  
**LITHIUM-ION BATTERIES NEAR DETROIT, MICHIGAN**

**AGENCY:** U.S. Department of Energy, Advanced Technology Vehicles Manufacturing Loan Program

**ACTION:** Finding of No Significant Impact

**SUMMARY:** The U.S. Department of Energy (DOE) conducted an environmental assessment (EA) that analyzed the potential environmental impacts associated with the A123 Systems, Inc., battery manufacturing operations for hybrid electric vehicles and plug-in hybrid electric vehicles. DOE, through its Advanced Technology Vehicles Manufacturing Loan Program, proposes to provide a Federal loan pursuant to Section 136 of the Energy Independence and Security Act of 2007 (EISA), and a grant from the National Energy Technology Laboratory under the American Recovery and Reinvestment Act (ARRA) (Funding Opportunity DE-FOA 0000026, *Recovery Act – Electric Drive Vehicle Battery and Component Manufacturing Initiative*) to A123 to support the proposed battery manufacturing Project. The purpose and need for agency action is to comply with DOE's mandate under Section 136 of the EISA and Funding Opportunity DE-FOA 0000026 of ARRA by selecting eligible projects that meet the goals of these Acts. DOE is using the NEPA process to assist in determining whether to issue a loan and grant to A123 to support the proposed A123 Project.

The goal of the A123 Project is to produce lithium-ion batteries for approximately 500,000 electric vehicles per year in manufacturing facilities located at three sites in the Detroit, Michigan, metropolitan area -- Livonia, Romulus, and Brownstown Township. Assuming that the batteries would be evenly dispersed between hybrid electric vehicles and plug-in hybrid electric vehicles over a 20 year period, the average annual gasoline consumption for vehicles equipped with lithium-ion batteries manufactured by the A123 facilities would be 239 gallons per year. When compared with 500,000 conventional vehicles produced annually over a 20 year period, the lithium-ion batteries produced by A123's facilities would save approximately 2.5 billion gallons of gasoline from vehicular consumption.

The Livonia site consists of an existing 291,000-square-foot multi-level building being retrofitted to include a research and development facility with office space, and low-volume Cell Assembly and Module and Pack Blocks.

The Brownstown Complex consists of five existing buildings on the South Campus of the Brownstown Business Center, an industrial park in Brownstown, Michigan. A123 would reequip three of those buildings to accommodate high-volume Cell Assembly and Module and Pack Block operations totaling approximately 1,723,000 square feet.

The Romulus Complex, which includes two existing buildings in Van Buren Township, is comprised of five existing buildings. A123 would reequip all or parts of the existing buildings,



# U.S. DEPARTMENT OF **ENERGY**

**News Media Contact(s):**  
(202) 586-4940

**For Immediate Release**  
September 17, 2009

## **US Energy Secretary Chu Announces Finalized \$5.9 Billion Loan for Ford Motor Company**

**Washington, DC** – Today, Secretary Steven Chu announced that the Department of Energy has closed on its loan offer of \$5.9 billion to Ford Motor Company to transform factories across Illinois, Kentucky, Michigan, Missouri, and Ohio to produce more fuel efficient models. The loan is part of the Department's Advanced Technology Vehicles Manufacturing program, which supports the development of innovative, advanced vehicle technologies to create thousands of clean energy jobs while helping reduce the nation's dangerous dependence on foreign oil. The loan for Ford Motor Company is the first to be finalized since the program was appropriated in the fall of 2008.

This announcement builds on steps taken by the Obama Administration earlier this week to require an average fuel economy of 35.5 miles per gallon in the year 2016. That standard will reduce oil consumption by an estimated 1.8 billion barrels, prevent greenhouse gas emissions of approximately 950 million metric tons, and save consumers more than \$3,000 in fuel costs. The funding announced today will help Ford meet those targets.

"This investment is part of our commitment to creating the clean energy jobs of the future while supporting American innovation," US Energy Secretary Steven Chu said. "We can revitalize the American auto industry and at the same time reduce our dependence on oil and cut our carbon pollution."

On June 23, 2009, DOE issued a conditional loan commitment to Ford to finance up to 80 percent of qualified expenditures to improve the efficiency of light vehicles by using technologies that improve internal combustion engines and transmissions, reduce vehicle weight, reduce vehicle drag with more aerodynamic designs, and improve vehicle efficiency through the development of hybrid and plug-in electric vehicles. The loan proceeds will enable Ford to raise the fuel efficiency of more than a dozen popular models, representing close to two million new vehicles annually, and save more than 200 million gallons of gas a year.

The Advanced Technology Vehicles Manufacturing Loan Program is focusing on helping domestic manufacturers apply the best available technologies to improve the efficiency of the vehicles they produce. In June of this year, the Department of Energy announced conditional loan offers to Ford Motor Company, Tesla Motors, and Nissan Motors for a total of \$8 billion. The program was appropriated \$7.5 billion by Congress to support up to \$25 billion in loans to companies making cars and components in US factories that increase fuel economy at least 25 percent above 2005 fuel economy levels. The Department plans to make additional loans under this program over the next several months to large and small auto manufacturers and parts suppliers up and down the production chain.

Applications for the loan program have included vehicles running on electricity, biofuels, and advanced combustion engines, and were submitted by both car and component makers, US automakers, US manufacturing subsidiaries of non-US-based companies, major US auto parts suppliers, and innovative startups. The intense technical and financial review process is focused not on choosing a single technology over others, but is aimed at promoting multiple approaches for achieving a fuel efficient economy.

**U.S. Department of Energy, Office of Public Affairs, Washington, D.C.**

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CONDITIONAL COMMITMENT LETTER

by and between

UNITED STATES DEPARTMENT OF ENERGY

and

FORD MOTOR COMPANY

Dated as of June 23, 2009

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Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.  
(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering the data needed, reviewing the collection of information, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Washington Headquarters Service, Paperwork Project (0348-0046), Washington, DC 20503.





# U.S. DEPARTMENT OF ENERGY

**NEWS MEDIA CONTACT:**  
(202) 586-4940

**FOR IMMEDIATE RELEASE:**  
Monday, December 7, 2009

## **Department of Energy Issues Final Rule on Loan Guarantees**

**WASHINGTON, DC** – Today, Energy Secretary Steven Chu announced the issue of a final rule amending the Department of Energy's regulations for its Loan Guarantee Program. The revised rule will allow for increased participation in the program by financial institutions and other investors and enable the support of more innovative energy technologies in the United States.

"This much needed change will provide greater flexibility to the Loan Guarantee Program and help us to support more projects at a better value to taxpayers," said Secretary Chu. "This is part of our commitment to ensuring businesses are able to access the support they need to create jobs and contribute to a clean energy economy."

Under the rule change, the Loan Guarantee Program will be able to consider financing projects together with other lenders and will be able to provide loan guarantees to projects with multiple participants (who may hold undivided interests in a project). As an example, export credit agencies and other financial institutions will now be able to provide financing to complement Title XVII loans and loan guarantees. This approach will result in lowered risk and potential costs to taxpayers.

The U.S. Department of Energy's Loan Guarantee Program paves the way for federal support of clean energy projects that use innovative technologies, and is aimed at spurring further investment in these advanced technologies. The Department incorporated feedback from industry and other interested parties in order to maximize the reach and success of the program.

On August 7, 2009, the Department published a Notice of Proposed Rulemaking and Opportunity for Comment announcing the effort to change the regulations. A 30-day comment period was extended an additional two weeks in response to public requests. DOE carefully reviewed all of the timely comments on the NOPR from over 2,100 interested parties.

Copies of the proposed rule will be available from the Department's Loan Guarantee

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By KathHeen Hart

The U.S. Government Accountability Office expects to release a report March 12 on the troubled U.S. Department of Energy loan guarantee program, according to a GAO staffer.

The GAO report comes as Republicans in Congress and on the presidential campaign trail step up their criticism of President Barack Obama's decision to invest billions of taxpayer dollars in renewable energy sources.

On March 8, Republican members of the House Energy and Commerce Committee asked Energy Secretary Steven Chu to provide them with a list of the companies that received DOE loan guarantees that are experiencing financial problems. During a hearing of the committee's Energy and Power Subcommittee, Rep. Joe Barton, R-Texas, asked Chu whether he has seen a list of the status of all the DOE loan guarantees and which ones may be in danger of failing into bankruptcy. In particular, Barton pressed Chu to provide an estimate of the number of loans on the department's "watch list."

Chu responded that he did not have the exact number. However, the secretary voiced support for the department's loan guarantee program in general. "The majority of the loans we've given out have been very good successes," Chu told the subcommittee. "With regard to alternative energies, there are a number of loans that are low risk and have a very high probability of being paid back."

Rep. Michael Burgess, R-Texas, asked Chu to provide the committee with information about the alleged postponement of the announcements of layoffs at non-bankrupt Solyndra until after the November 2010 mid-term elections. Chu told Burgess that the matter of whether someone in the Obama administration was involved in postponing the announcement of layoffs by Solyndra has been turned over to DOE's Office of Inspector General. "The IG is taking an independent look at what happened," Chu said.

Burgess also pressed Chu to provide the committee with a written list of loan guarantee companies that may potentially be facing bankruptcy. However, Chu did not specifically agree to provide the committee with a written list of company names on the department's watch list. "We don't want to violate the company confidentialities," Chu said.

Chu noted that his senior adviser plans to brief the committee during the week of March 12 on the status of the loan guarantees. The XVII of the Energy Policy Act of 2005 authorized the energy secretary to make loan guarantees to companies investing in projects that "avoid, reduce, or sequester air pollutants" and "employ new or significantly improved technologies," including renewable energy systems, advanced fossil energy technology, advanced nuclear and efficient electrical generation.

Obama has made clean energy development a central goal of his presidency. In a Feb. 23 speech in Miami on energy policy, the president stressed the importance of [providing incentives](#) for the development of clean energy. "A century of subsidies to the oil companies is long enough. It's time to end taxpayer giveaways to an industry that's never been more profitable, and double-down on a clean energy industry that's never been more promising," Obama said.

Drawing a sharp distinction between himself and Obama, former Massachusetts Gov. Mitt Romney, the Republican 2012 presidential primary candidate front-runner, [has assailed](#) the president's green energy policies and vowed to focus on developing America's coal, oil and natural gas resources. "In place of real energy, Obama has focused on an imaginary world where government-subsidized windmills and solar panels could power the economy. This vision has failed. He promise of 5 million green jobs vanished as fast as the \$500 million he gave to his campaign donors at non-bankrupt Solyndra," Romney said in a March 5 [blog post on his website](#).

The Congressional Budget Office reported in a March 6 brief that 78% of federal energy tax preferences in 2011 [will go to renewable resources](#), energy efficiency and other alternative technologies. Tax preferences aimed at energy efficiency and renewable energy accounted for about \$16 billion in 2011, the CBO found.

Tools



#### Users Also Read

- Texas REC prices expected to continue to claw higher - Thursday, March 08, 2012 9:41 AM
- Energy Current: Lights out for solar? - Monday, March 05, 2012 8:15 AM
- GSA: Moody's Senior Vice President A.J. Sabatino on Dynegy bankruptcies, power plants - Wednesday, March 07, 2012 4:32 PM
- Romney assails Obama's green focus, vows to create 'Energy Superpower' - Monday, March 05, 2012 4:52 PM
- Hires and Firms: Moves through March 8 - Friday, March 09, 2012 8:47 AM

**LOAN GUARANTEE  
SOLICITATION ANNOUNCEMENT**



**U.S. Department of Energy  
Loan Guarantee Program Office**

**FEDERAL LOAN GUARANTEES FOR FRONT END NUCLEAR  
FACILITIES**

**Reference Number: DE-FOA-0000007**

**Announcement Type: Amendment #1**

<b>Issue Date:</b>	<b>July 11, 2008</b>
<b>Part I Application Due Date:</b>	<b>September 29, 2008</b>
<b>Part II Application Due Date:</b>	<b>December 2, 2008</b>

March 2012

**DOE LOAN  
GUARANTEES****Further Actions Are  
Needed to Improve  
Tracking and Review  
of Applications****G A O**Accountability \* Integrity \* Reliability

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Highlights of GAO-12-157, a report to congressional committees

## DOE LOAN GUARANTEES

### Further Actions Are Needed to Improve Tracking and Review of Applications

#### Why GAO Did This Study

The Department of Energy's (DOE) Loan Guarantee Program (LGP) was created by section 1703 of the Energy Policy Act of 2005 to guarantee loans for innovative energy projects. Currently, DOE is authorized to make up to \$34 billion in section 1703 loan guarantees. In February 2009, the American Recovery and Reinvestment Act added section 1705, making certain commercial technologies that could start construction by September 30, 2011, eligible for loan guarantees. It provided \$6 billion in appropriations that were later reduced by transfer and rescission to \$2.5 billion. The funds could cover DOE's costs for an estimated \$18 billion in additional loan guarantees. GAO has an ongoing mandate to review the program's implementation. Because of concerns raised in prior work, GAO assessed (1) the status of the applications to the LGP and (2) for loans that the LGP has committed to, or made, the extent to which the program has adhered to its process for reviewing applications. GAO analyzed relevant legislation, regulations, and guidance; prior audits; and LGP data, documents, and applications. GAO also interviewed DOE officials and private lenders with experience in energy project lending.

#### What GAO Recommends

GAO recommends that the Secretary of Energy establish a timetable for, and fully implement, a consolidated system to provide information on LGP applications and reviews and regularly update program policies and procedures. DOE disagreed with the first of GAO's three recommendations; GAO continues to believe that a consolidated system would enhance program management.

View GAO-12-157. For more information, contact Frank Rusco at (202) 512-3841 or [ruscof@gao.gov](mailto:ruscof@gao.gov).

#### What GAO Found

The Department of Energy (DOE) has made \$15 billion in loan guarantees and conditionally committed to an additional \$15 billion, but the program does not have the consolidated data on application status needed to facilitate efficient management and program oversight. For the 460 applications to the Loan Guarantee Program (LGP), DOE has made loan guarantees for 7 percent and committed to an additional 2 percent. The time the LGP took to review loan applications decreased over the course of the program, according to GAO's analysis of LGP data. However, when GAO requested data from the LGP on the status of these applications, the LGP did not have consolidated data readily available and had to assemble these data over several months from various sources. Without consolidated data on applicants, LGP managers do not have readily accessible information that would facilitate more efficient program management, and LGP staff may not be able to identify weaknesses, if any, in the program's application review process and approval procedures. Furthermore, because it took months to assemble the data required for GAO's review, it is also clear that the data were not readily available to conduct timely oversight of the program. LGP officials have acknowledged the need for a consolidated system and said that the program has begun developing a comprehensive business management system that could also be used to track the status of LGP applications. However, the LGP has not committed to a timetable to fully implement this system.

The LGP adhered to most of its established process for reviewing applications, but its actual process differed from its established process at least once on 11 of the 13 applications GAO reviewed. Private lenders who finance energy projects that GAO interviewed found that the LGP's established review process was generally as stringent as or more stringent than their own. However, GAO found that the reviews that the LGP conducted sometimes differed from its established process in that, for example, actual reviews skipped applicable review steps. In other cases, GAO could not determine whether the LGP had performed some established review steps because of poor documentation. Omitting or poorly documenting reviews reduces the LGP's assurance that it has treated applicants consistently and equitably and, in some cases, may affect the LGP's ability to fully assess and mitigate project risks. Furthermore, the absence of adequate documentation may make it difficult for DOE to defend its decisions on loan guarantees as sound and fair if it is questioned about the justification for and equity of those decisions. One cause of the differences between established and actual processes was that, according to LGP staff, they were following procedures that had been revised but were not yet updated in the credit policies and procedures manual, which governs much of the LGP's established review process. In particular, the version of the manual in use at the time of GAO's review was dated March 5, 2009, even though the manual states it was meant to be updated at least annually, and more frequently as needed. The updated manual dated October 6, 2011, addresses many of the differences GAO identified. Officials also demonstrated that LGP had taken steps to address the documentation issues by beginning to implement its new document management system. However, by the close of GAO's review, LGP could not provide sufficient documentation to resolve the issues identified in the review.

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## Abbreviations

CRB	Credit Review Board
DOE	Department of Energy
EERE	Energy Efficiency, Renewable Energy
FIPP	Financial Institution Partnership Program
LGP	Loan Guarantee Program
LPO	Loan Programs Office
OMB	Office of Management and Budget

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March 12, 2012

The Honorable Dianne Feinstein  
Chair  
The Honorable Lamar Alexander  
Ranking Member  
Subcommittee on Energy and Water Development  
Committee on Appropriations  
United States Senate

The Honorable Rodney P. Frelinghuysen  
Chairman  
The Honorable Peter J. Visclosky  
Ranking Member  
Subcommittee on Energy and Water Development,  
and Related Agencies  
Committee on Appropriations  
House of Representatives

The Department of Energy's (DOE) loan guarantee program (LGP) is currently authorized to issue loan guarantees worth up to \$34 billion for certain types of energy projects that need affordable financing.<sup>1</sup> Federal loan guarantee programs such as the LGP can help companies obtain such financing because the federal government agrees to reimburse the lender for the guaranteed amount if a borrower defaults. As directed by section 1703 of the Energy Policy Act of 2005, the LGP originally focused on projects that use new or significantly improved energy technologies and avoid, reduce, or sequester emissions of air pollutants or man-made greenhouse gases. In February 2009, Congress expanded the scope of the LGP in the American Recovery and Reinvestment Act (Recovery Act), by adding section 1705 to the Energy Policy Act, which provided funding and extended the program to include projects that use commercial energy technology that employs renewable energy systems, electric power transmission systems, or leading-edge biofuels that meet certain criteria. The LGP has issued nine calls for applications—known as solicitations—each of which covers particular types of energy technology.

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<sup>1</sup>The amount of authority does not include approximately \$20 billion that expired when authority for a portion of the program expired on September 30, 2011.

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According to DOE officials, the LGP is important to both develop new energy technologies for commercial use and make some commercial projects possible, thereby creating jobs and new energy supplies. However, loan guarantee programs can also expose the government to substantial financial risks. For example, a borrower could default on a federally guaranteed loan, leaving taxpayers to pay for the loss. In the past, we also found problems with federal loan guarantee programs that occurred in part because agencies did not exercise sufficient due diligence. Due diligence is the review process by which a lender identifies and mitigates potential problems or risks with a project before the lender makes a loan or loan guarantee. Recently, the filing of bankruptcy petitions by two recipients of DOE loan guarantees have raised concerns that DOE may not be sufficiently identifying and mitigating the risk of a loan default.

GAO has an ongoing mandate under the 2007 Revised Continuing Appropriations Resolution to review DOE's execution of the LGP and to report its findings to the House and Senate Committees on Appropriations. This is the sixth time we have reported on this program.<sup>2</sup> We have raised concerns in our prior work about the limitations of the portion of the program conducted under section 1703 in attracting financially viable projects representing the full range of targeted technologies.<sup>3</sup> In addition, we previously reported, among other things, that the LGP treated applicants inconsistently and recommended that DOE treat applicants consistently or clearly establish the conditions that would warrant disparate treatment.<sup>4</sup> Because of questions regarding inconsistent treatment of applicants and DOE's review process that we raised in the 2010 report, our objectives for this report were to determine (1) the status of the applications to the LGP's nine solicitations and (2) the extent to which the LGP has adhered to its process for reviewing applications for loans that the LGP has committed to or closed.

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<sup>2</sup>See our list of related products on the LGP at the end of this report.

<sup>3</sup>GAO, *Department of Energy: New Loan Guarantee Program Should Complete Activities Necessary for Effective and Accountable Program Management*, GAO-08-750 (Washington, D.C.: July 7, 2008).

<sup>4</sup>GAC-08-750; GAO, *Department of Energy: Further Actions Are Needed to Improve DOE's Ability to Evaluate and Implement the Loan Guarantee Program*, GAO-10-627 (Washington, D.C.: July 12, 2010).

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To determine the status of applications to the LGP's nine solicitations, we reviewed DOE and LGP documents on the establishment and operation of the program and analyzed the LGP's available data on the applications received and their current status. Because the LGP did not maintain consolidated information on application status, it had to assemble data from various sources for all of the applications as of September 30, 2011. To assist in this effort, we tailored a data request to collect data on the status of all 460 applications to the program in consultation with agency officials. These data were to provide a current snapshot of the program by solicitation and allow analysis of various characteristics. LGP staff familiar with each solicitation completed the spreadsheets, and these spreadsheets were reviewed by managers before they were forwarded to GAO. We assessed the reliability of the data the LGP provided by reviewing it, comparing it to other sources and following up with the agency to clarify questions and inconsistencies, and obtain missing data. Once the data were all collected, we found them to be sufficiently reliable for our purposes. This process enabled us to develop up-to-date programwide information on the status of applications. The LGP staff updated its March 2011 applicant status data as of July 29, 2011, and we obtained additional data on the conditional commitments and closings made by the September 30, 2011, expiration of the section 1705 authority for loan guarantees with a credit subsidy. In cases where multiple applications were submitted for a single project, we considered each to be a single application for purposes of this report. In addition, we met with the LGP's management and staff from each of the divisions involved with the review process. To determine the extent to which the LGP has adhered to its process for reviewing applications for loans that it has committed to or closed, we identified the key steps in the review process by analyzing the laws, regulations, policies, guidance, and solicitations for the program. We verified these key steps in interviews with LGP officials. We identified the 13 applications that had received conditional commitments or had closed by December 31, 2010.<sup>5</sup> We then requested documentation from the LGP of the key review steps it conducted for selected applications. We initially requested this documentation for a

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<sup>5</sup>Three additional applications had either reached conditional commitment or closed during this period. We excluded these applications from our review because the LGP's review process for these applications was substantially different. A conditional commitment is a commitment by DOE to issue a loan guarantee if the applicant satisfies specific requirements. The Secretary of Energy has the discretion to cancel a conditional commitment at any time for any reason prior to the issuance of a loan guarantee.

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nonprobability sample of 6 applications representing a range of solicitations and project types.<sup>6</sup> We also collected more limited information on the 7 remaining applications to which DOE had conditionally committed to issue a loan guarantee by the end of calendar year 2010. For these 7, we reviewed certain key steps for which we found differences from the LGP's established process during our review of the initial 6 applications. We did not evaluate the quality of the LGP's analyses supporting the completion of these steps. The applications we reviewed were processed by the LGP under the policies and procedures that were in place through September 30, 2011.<sup>7</sup> We also interviewed seven private lenders with experience financing energy sector projects to gain insights on the comparability of the LGP and private sector review processes. A more detailed discussion of our objectives, scope, and methodology is presented in appendix I.

We conducted this performance audit from September 2010 to February 2012 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## Background

DOE's LGP was designed to address the fundamental impediment for investors that stems from the high risks of clean energy projects, including technology risk—the risk that the new technology will not perform as expected—and execution risk—the risk that the borrower will not perform as expected. Companies can face obstacles in securing enough affordable financing to survive the “valley of death” between developing innovative technologies and commercializing them. Because the risks that lenders must assume to support new technologies can put private financing out of reach, companies may not be able to commercialize innovative technologies without the federal government's

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<sup>6</sup>Because this was a nonprobability sample, we cannot generalize what we found to all applications, but we chose these applications to include a variety of project types and for different solicitations.

<sup>7</sup>Department of Energy, *Title XVII Of The Energy Policy Act Of 2005 Loan Guarantee Program, Credit Policies and Procedures* (Washington, D.C., Mar. 5, 2009).

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financial support. According to the DOE loan program's Executive Director, DOE loan guarantees lower the cost of capital for projects using innovative energy technologies, making them more competitive with conventional technologies and thus more attractive to lenders and equity investors. Moreover, according to the DOE loan programs Executive Director, the program takes advantage of DOE's expertise in analyzing the technical aspects of proposed projects, which can be difficult for private sector lenders without that expertise.

Until February 2009, the LGP was working exclusively under section 1703 of the Energy Policy Act of 2005, which authorized loan guarantees for new or innovative energy technologies that had not yet been commercialized. Congress had authorized DOE to guarantee approximately \$34 billion in section 1703 loans by fiscal year 2009, after accounting for rescissions, but it did not appropriate funds to pay the "credit subsidy costs" of these guarantees. For section 1703 loan guarantees, each applicant was to pay the credit subsidy cost of its own project. These costs are defined as the estimated long-term cost, in net present value terms, over the entire period the loans are outstanding to cover interest subsidies, defaults, and delinquencies (not including administrative costs). Under the Federal Credit Reform Act of 1990, the credit subsidy cost for any guaranteed loan must be provided prior to a loan guarantee commitment.

In past reports, we found several issues with the LGP's implementation of section 1703. For example, in our July 2008 report, we stated that risks inherent to the program make it difficult for DOE to estimate credit subsidy costs it charges to borrowers.<sup>6</sup> If DOE underestimates these costs, taxpayers will ultimately bear the costs of defaults or other shortfalls not covered by the borrowers' payments into a cost-subsidy pool that is to cover section 1703's program-wide costs of default. In addition, we reported that, to the extent that certain types of projects or technologies are more likely than others to have fees that are too high to remain economically viable, the projects that do accept guarantees may be more heavily weighted toward lower-risk technologies and may not represent the full range of technologies targeted by the section 1703 program.

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<sup>6</sup>GAO-08-750.

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In February 2009, the Recovery Act amended the Energy Policy Act of 2005, authorizing the LGP to guarantee loans under section 1705. This section also provided \$2.5 billion to pay applicants' credit subsidy costs.<sup>9</sup> This credit subsidy funding was available only to projects that began construction by September 30, 2011, among other requirements.<sup>10</sup> DOE estimated that the funding would be sufficient to provide about \$18 billion in guarantees under section 1705. Section 1705 authorized guarantees for commercial energy projects that employ renewable energy systems, electric power transmission systems, or leading-edge biofuels that meet certain criteria. Some of these are the same types of projects eligible under section 1703, which authorizes guarantees only for projects that use new or significantly improved technologies.<sup>11</sup> Consequently, many projects that had applied under section 1703 became eligible to have their credit subsidy costs paid under section 1705.

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<sup>9</sup>Pub. L. No. 111-5, Div. A, Title IV (Feb. 17, 2009). Congress originally appropriated nearly \$6 billion to pay the credit subsidy costs of projects supported under section 1705, with the limitation that funding to pay the credit subsidy costs of leading-edge biofuel projects eligible under this section would not exceed \$500 million. Congress later authorized the President to transfer up to \$2 billion of the nearly \$6 billion to expand the "Cash for Clunkers" program. Pub. L. No. 111-47 (Aug. 7, 2009). The \$2 billion was transferred to the Department of Transportation, leaving nearly \$4 billion to cover credit subsidy costs of projects supported under section 1705. On August 10, 2010, Pub. L. No. 111-226 rescinded an additional \$1.5 billion from the loan guarantee appropriation to pay for education-related jobs, Medicaid and other initiatives, further reducing funding available to \$2.5 billion.

<sup>10</sup>Other requirements include that the workers employed on the project, including contractors or subcontractors, will be paid wages not less than prevailing on similar work in the locality in accordance with the Davis-Bacon Act. The act limited loan guarantees under section 1705 to the following categories of projects: (1) renewable energy systems, including incremental hydropower, that generate electricity or thermal energy, and facilities that manufacture related components; (2) electric power transmission systems, including upgrading and reconductoring projects; and (3) leading-edge biofuel projects that will use technologies performing at the pilot or demonstration scale that the Secretary determines are likely to become commercial technologies and will produce transportation fuels that substantially reduce life-cycle greenhouse gas emissions compared with other transportation fuels.

<sup>11</sup>New or significantly improved technology means a technology concerned with the production, consumption, or transportation of energy and that is not a commercial technology, and that has either: (1) only recently been developed, discovered, or learned; or (2) involves or constitutes one or more meaningful and important improvements in productivity or value, in comparison to commercial technologies in use in the United States at the time the term sheet is issued.



Because authority for the section 1705 loan guarantees expired on September 30, 2011, section 1703 is now the only remaining authority for the LGP. In April 2011, Congress appropriated \$170 million to pay credit subsidy costs for section 1703 projects. Previously, these costs were to be paid exclusively by the applicants and were not federally funded. Congress also authorized DOE to extend eligibility under section 1703 to certain projects that had applied under section 1705 but did not receive a loan guarantee prior to the September 30, 2011, deadline.<sup>12</sup>

DOE has issued nine calls for applications to the LGP. Each of these nine "solicitations" has specified the energy technologies it targets and provided criteria for the LGP to determine project eligibility and the likelihood of applicants repaying their loans (see table 1).

**Table 1: DOE Solicitations for Applications to the LGP**

<b>Name of solicitation</b>	<b>Date issued or updated</b>	<b>Description of eligible energy technology</b>
Mixed 06	8/8/06	All technologies except for nuclear facilities and oil refineries.
Nuclear Front-End	8/30/08	Facilities for new uranium enrichment capacity and distribution.
Nuclear Power	8/30/08	Nuclear power facilities.
Energy efficiency and renewable energy or EERE 08	8/30/08	Innovative energy efficiency, renewable energy, and advanced energy transmission and distribution technologies.
Fossil	9/22/08	Coal-based power generation and industrial gasification facilities that incorporate carbon capture and sequestration or other beneficial uses of carbon and for advanced coal gasification facilities.
Energy efficiency and renewable energy or EERE 09	7/29/09	Innovating energy efficiency, renewable energy, and advanced energy transmission and distribution technologies.
Transmission	7/29/09	Electric power transmission infrastructure investment projects.

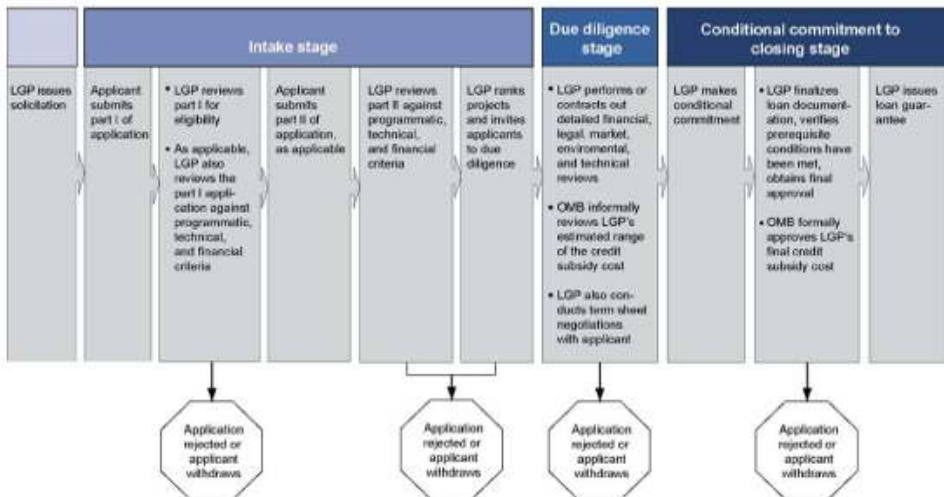
<sup>12</sup>Department of Defense and Full-Year Continuing Appropriations Act, 2011, Pub. L. No. 112-10.

Name of solicitation	Date issued or updated	Description of eligible energy technology
Financial Institution Partnership Program (FIPP)	10/7/09	Renewable energy generation projects using commercial technology.
Manufacturing	8/10/10	Manufacture of renewable energy systems and components using commercial technology.

Source: DOE.

To help ensure that that these criteria were applied consistently and that each selected project provided a reasonable prospect of repayment, in March 2009, the LGP issued a credit policies and procedures manual for the program, outlining its policies and procedures for reviewing loan guarantee applications. As shown in figure 1, this review process is divided into three stages: intake, due diligence, and "conditional commitment to closing." We use the term "review process" to refer to the entire process.

Figure 1: Overview of LGP Review Process for Applications through the Intake, Due Diligence, and Conditional Commitment to Closing Stages



Source: GAO presentation of DOE data.

During the intake stage, the LGP assesses applications in a two-part process for most applicants. In part I, the LGP considers a project's eligibility based on the requirements in the solicitation and relevant laws and regulations. Nuclear solicitation applications are also evaluated against programmatic, technical, and financial criteria during the part I review. Based on the LGP's eligibility determination during part I review, qualifying applicants are invited to submit a part II application. Generally, LGP evaluates this application against programmatic, technical, and financial criteria to form a basis for ranking applications within each solicitation.<sup>13</sup> Based on these initial rankings, the LGP selects certain

<sup>13</sup>Under the FIPP solicitation, applicants must apply to a private "lead lender," which initially evaluates the proposed loan guarantee for credit approval and decides whether to apply to DOE for the loan guarantee.

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applications for the due diligence stage. During due diligence, the LGP performs a detailed examination of the project's financial, technical, legal, and other qualifications to ensure that the LGP has identified and mitigated any risks that might affect the applicant's ability to repay the loan guarantee. Key to identifying risks during due diligence are required reports by independent consultants on the technical and legal aspects of the project and others, such as marketing reports, that the LGP uses when needed. The LGP also negotiates the terms of the loan guarantee with the applicant during due diligence.

The proposed loan guarantee transaction is then submitted for review and/or approval by the following entities:

- DOE's Credit Committee, consisting of senior executive service DOE officials, most of whom are not part of the LGP.
- DOE's Credit Review Board (CRB), which consists of senior-level officials such as the deputy and undersecretaries of Energy.
- The Office of Management and Budget (OMB), which reviews the LGP's estimated credit subsidy range for each transaction.
- Department of the Treasury.
- The Secretary of Energy, who has final approval authority.

Following the Secretary's approval, the LGP offers the applicant a "conditional commitment" for a loan guarantee. If the applicant signs and returns the conditional commitment offer with the required fee, the offer becomes a conditional commitment, contingent on the applicant meeting conditions prior to closing. During the conditional commitment to closing stage, LGP officials and outside counsel prepare the final financing documents and ensure that the applicant has met all conditions required for closing, and the LGP obtains formal approval of the final credit subsidy cost from OMB. Prior to closing, applications may be rejected by the LGP. Similarly, applicants can withdraw at any point during the review process. Once these steps have been completed, the LGP "closes" the loan guarantee and, subject to the terms and conditions of the loan guarantee agreement, begins to disburse funds to the project. For further detail on the review process, see appendix III.

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## DOE Has Made \$15.1 Billion in Loan Guarantees but Does Not Maintain Consolidated Data on Status of Applications

For 460 applications to the LGP from its nine solicitations, DOE has made \$15.1 billion in loan guarantees and conditionally committed to an additional \$15 billion, representing \$30 billion of the \$34 billion in loan guarantees authorized for the LGP.<sup>14</sup> However, when we requested data from the LGP on the status of the applications to its nine solicitations, the LGP did not have consolidated data readily available but had to assemble them from various sources.

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## DOE Has Made \$15.1 Billion in Loan Guarantees and Committed to Another \$15 Billion

As of September 30, 2011, the LGP had received 460 applications and made (closed) \$15.1 billion in loan guarantees in response to 30 applications (7 percent of all applications), all under section 1705. It had not closed any guarantees under section 1703. In addition, the LGP had conditionally committed another \$15 billion for 10 more applications (2 percent of all applications)—4 under section 1705 and 6 under section 1703. The closed loan guarantees obligated \$1.9 billion of the \$2.5 billion in credit subsidy appropriations funded by the Recovery Act for section 1705, leaving \$600 million of the funds unused before the program expired. For section 1703 credit subsidy costs, the \$170 million that Congress appropriated in April 2011 to pay such costs is available, but it may not cover all such costs because the legislation makes the funds available only for renewable energy or efficient end-use energy technologies.<sup>15</sup> Applicants whose projects' credit subsidy costs are not covered by the appropriation must pay their own credit subsidy costs. To date, credit subsidy costs for loan guarantees that DOE has closed have, on average, been about 12.5 percent of the guaranteed loan amounts.

The median loan guarantee requested for all applications was \$141 million. Applications for nuclear power projects requested significantly larger loan amounts—a median of \$7 billion—and requested the largest

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<sup>14</sup>The amount of authority does not include approximately \$20 billion that expired when authority for a portion of the program expired on September 30, 2011.

<sup>15</sup>The legislation also made some section 1705 projects submitted to DOE by Feb. 24, 2011, eligible for these funds, but nuclear projects are not included among eligible projects.

total dollar amount by type of technology—\$117 billion.<sup>16</sup> Applications for energy efficiency and renewable energy solicitations requested the second-largest dollar amount—\$74 billion. Table 2 provides further details on the applications by solicitation and the resulting closed loan guarantees and conditional commitments. Appendix II provides further details on the individual committed and closed loan guarantees.

**Table 2: Number of Applications, Median and Total Loan Guarantees Requested, Total Conditionally Committed Loan Guarantees, and Total Closed Loan Guarantees, by Solicitation, through September 30, 2011**

Dollars in millions

Solicitation, issue date	Number of applications	Median loan guarantee requested	Total loan guarantee requested	Total conditionally committed loan guarantee	Total closed loan guarantee <sup>a</sup>
Mixed 06, 8/8/06	140	\$60 <sup>b</sup>	\$31,018 <sup>b</sup>	\$72 <sup>d</sup>	\$1,203
Energy Efficiency and Renewable Energy 08, 6/30/08 <sup>c</sup>	68	163	21,265	261 <sup>e</sup>	3,381
Nuclear Front-End, 6/30/08	2	2,000	4,000	2,000 <sup>d</sup>	0
Nuclear Power, 6/30/08	19	6,969	117,363	8,326 <sup>d</sup>	0
Fossil, 9/22/06	8	2,072	17,145	0	0
Energy Efficiency and Renewable Energy 09, 7/29/09	168	150	52,915	2,105	5,601
Transmission, 7/29/09	12	660	11,586	0	343
Financial Institution Partnership Program, 10/7/09	37	146	11,057	2,274	4,516
Manufacturing, 8/10/10	6	98	1,022	0	0
<b>Total</b>	<b>460</b>	<b>\$141<sup>d</sup></b>	<b>\$267,372</b>	<b>\$15,038<sup>e</sup></b>	<b>\$15,044</b>

Source: GAO analysis of DOE data provided as of July 26, 2011, and updated for new commitments or closings, as of September 30, 2011.

Note: Totals may not add due to rounding.

<sup>a</sup>Fifteen of these guarantees went to projects that applied under section 1703 but were later deemed eligible for and received funding under section 1705.

<sup>16</sup>The minimum loan guarantee requested for all applications was \$0, and the maximum loan guarantee requested was \$12 billion, both for nuclear power projects. The \$0 loan guarantee request was for one portion of a jointly sponsored nuclear power project. The joint sponsor of the nuclear power project requested approximately \$8 billion in loan guarantees.

<sup>12</sup>The median and total loan guarantee amounts reflect the reported loan amounts for 134 of the 140 Mixed 06 applications because DOE said 6 applicants did not specify the amount of their loan guarantee request.

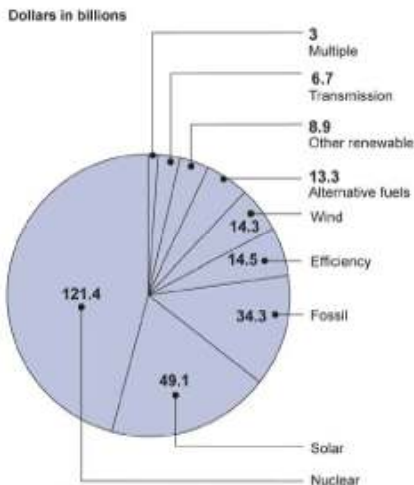
<sup>13</sup>This row includes four applications that LGP does not consider to be official submissions since the applicants did not pay the application fee. However, we included these applications in our analysis because the LGP included them in the application data they provided to us, and these applications demonstrate the level of interest in the solicitation.

<sup>14</sup>This amount is the median loan guarantee amount requested across all solicitations. The minimum loan guarantee requested for all applications was \$0, and the maximum loan guarantee requested was \$12 billion, both for nuclear power projects.

<sup>15</sup>Of the \$15 billion in committed loan guarantees, applications under the section 1703 authority to these solicitations account for \$10.4 billion or 71 percent. See appendix II for a list of these committed loan guarantees.

For all 460 LGP applications submitted, figure 2 shows the total loan guarantee amounts requested by type of energy technology.

**Figure 2: Amount of Loan Guarantees Requested in 460 Applications by Energy Technology Category, as of July 29, 2011**



Source: GAO analysis of DOE data describing the energy technology of each loan guarantee application, as of July 29, 2011.

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Note: For this analysis, we used simplified energy technology categories based on DOE's data. The figure omits one application for which the LGP did not report the type of energy technology employed by the proposed project or the amount requested for the project. It also omits requests that DOE listed as using "other" energy technology, which totaled about 0.01 percent of the amount requested.

Table 3 provides an overview, as of September 30, 2011, of the status of the 460 loan guarantee applications that the LGP received in response to its nine solicitations. Of the 460 applications, 66 were still in various stages of the approval process (intake and due diligence), 40 had received conditional commitment or were closed, and 354 had been withdrawn or rejected. DOE documents list a wide range of reasons for application withdrawals, including inability to submit application material in a timely manner, inability to secure feedstock, project faced many hurdles, applicant did not pursue project, and applicant switched to another program. Solicitations that primarily targeted efficiency and renewable energy received the most applications, while those targeting nuclear front-end technologies (for the beginning of the nuclear fuel cycle), manufacturing, and fossil fuels received the fewest. The rejection rate was highest for applications submitted for two of the earlier solicitations and much lower for DOE's FIPP,<sup>17</sup> a more recent solicitation involving applications sponsored by private financial institutions. Since we began our review, two of the borrowers with closed loan guarantees have declared bankruptcy—Solyndra, Inc., with a \$535 million loan guarantee for manufacturing cylindrical solar cells, and Beacon Power Corporation, with a \$43 million loan guarantee for an energy storage technology.

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<sup>17</sup>FIPP refers to the federal loan guarantees for commercial technology renewable energy generation projects under the DOE LGP solicitation number DE-FOA-0000166, dated October 7, 2009. This solicitation is unique because it is the only one inviting private lenders to share due diligence activities for identifying and mitigating risk and finance a portion of total project costs.



**Table 3: Number (and Percentage) of Applications in Each Review Stage, by Solicitation, as of September 30, 2011**

Solicitation, issue date	Number of applications	Number (percentage) of applications by stage					
		Intake	Due diligence	Conditional commitment	Guarantees made (closed)	Withdrawn	Rejected
Mixed 06, 8/8/06	140	0(0)	3(2)	1(1)	4(3)	8(6)	124(89)
EERE 08, 6/30/08 <sup>a</sup>	68	0(0)	7(10)	2(3)	8(12)	6(9)	45(66)
Nuclear Front End, 6/30/08	2	0(0)	1(50)	1(50)	0(0)	0(0)	0(0)
Nuclear Power, 6/30/08	19	5(26)	4(21)	3(16)	0(0)	7(37)	0(0)
Fossil, 9/22/08	8	0(0)	4(50)	0(0)	0(0)	3(38)	1(13)
EERE 09, 7/29/09	168	12(7)	21(13)	1(1)	10(6)	59(35)	65(39)
Transmission, 7/29/09	12	2(17)	0(0)	0(0)	1(8)	9(75)	0(0)
Financial Institution Partnership Program (FIPP), 10/7/09	37	0(0)	7(19)	2(5)	7(19)	18(49)	3(8)
Manufacturing, 8/10/10	6	0(0)	0(0)	0(0)	0(0)	3(50)	3(50)
<b>Total<sup>b</sup></b>	<b>460</b>	<b>19(4)</b>	<b>47(10)</b>	<b>10(2)<sup>c</sup></b>	<b>30(7)<sup>d</sup></b>	<b>113(25)</b>	<b>241(52)</b>

Source: GAO analysis of DOE data provided as of July 20, 2011 and updated for new commitments or closings as of September 30, 2011.

<sup>a</sup>This row includes four applications that the LGP does not consider to be official submissions since the applicants did not pay the application fee. However, we included these applications in our analysis because the LGP included them in the application data they provided to us, and these applications demonstrate the level of interest in the solicitation.

<sup>b</sup>Percentage totals may not add to 100 due to rounding.

<sup>c</sup>Four of these conditional commitments are under section 1705, and six are under section 1703. Many of the section 1703 applications have been in process since 2006 or before. See appendix II, tables 7 and 8.

<sup>d</sup>All of these closed loan guarantees are under section 1705. See appendix II, table 9.

The elapsed time for LGP to process loan applications generally decreased over the course of the program, according to LGP data. LGP officials noted that the elapsed time between review stages includes the time the LGP waited for the applicants to prepare required documents for each stage. The process was longest for applications to the earlier solicitations, issued solely under section 1703, from start to closing.<sup>16</sup> The review process was shorter for applications under the four more recent solicitations, issued after the passage of section 1705. For example, the

<sup>16</sup>Some closed loan guarantees went to projects that applied under section 1703 but were later eligible for and received funding under section 1705.

first solicitation, known as Mixed 06, had the longest overall time frames from intake to closing—a median of 1,442 days—and the FIPP solicitation had the shortest time frames—a median of 422 days.<sup>19</sup> Applications to the FIPP solicitation had the shortest elapsed time because this program was carried out in conjunction with private lenders, who conducted their own reviews before submitting loan applications to the LGP.<sup>20</sup> Table 4 shows the median number of days elapsed during each review stage, by solicitation, as of September 30, 2011.

**Table 4: Number of Applications and Median Number of Days Elapsed During Each Review Stage and Overall, by Solicitation**

Solicitation, issue date	Number of applications	Intake stage (parts I & II)	Due diligence stage	Conditional commitment to closing stage	Overall: start of intake to closing date	Rejected applications: start of intake to rejection date
Number of applications completing this stage		114	43	30	30	241
Mixed 06, 8/8/06	140	722	430	284	1,442	280
EERE 06, 6/30/06 <sup>1</sup>	68	90	338	177	696	168
Nuclear Front-End, 6/30/08	2	230	401	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>
Nuclear Power, 6/30/08	19	219	294	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>
Fossil, 9/22/08	8	199	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	201
EERE 09, 7/29/09	168	194	309	114	668	70
Transmission, 7/29/09	12	178	222	115	515	<sup>b</sup>
FIPP, 10/7/09	37	73	228	92	422	94
Manufacturing, 8/10/10	6	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	<sup>b</sup>	78
<b>Median number of days for all applications</b>		<b>184<sup>d</sup></b>	<b>294<sup>d</sup></b>	<b>127<sup>d</sup></b>	<b>660<sup>d</sup></b>	<b>277<sup>d</sup></b>

Source: GAO analysis of DOE data.

**Notes:**

The number of days elapsed represents the median for the review period of those applications that proceeded to the next review stage. We believe the median is a better representation of the data for this table because it reduces the effect of some outliers that skew the data.

<sup>19</sup>The minimum number of days elapsed from intake to closing was 287 days, and the maximum number of days from intake to closing was 1,731 days.

<sup>20</sup>The LGP's lenders to date have been the U.S. Treasury's Federal Financing Bank and the private lenders under the FIPP solicitation who brought applicants to the LGP and who must risk at least 20 percent of the total loans for the applicants' project.

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The calculations were for the status and elapsed days of the 460 applications as of September 30, 2011.

The elapsed time between review stages includes the time the LGP waited for the applicant to prepare required documents for each stage.

<sup>8</sup>This row includes four applications that the LGP does not consider to be official submissions since the applicants did not pay the application fee. However, we included these applications in our analysis because the LGP included them in the application data they provided to us, and these applications demonstrate the level of interest in the solicitation. Additionally, the average elapsed time for intake review of applications to the EERE CB solicitation is lower because applications for certain types of projects were not required to follow a two-part application process.

<sup>9</sup>No applications completed this stage for this solicitation.

<sup>10</sup>The minimum number of days elapsed for all applications for intake was 33 and the maximum number of days elapsed was 740.

<sup>11</sup>The minimum number of days elapsed for all applications for due diligence was 50 and the maximum number of days elapsed was 930.

<sup>12</sup>The minimum number of days elapsed for all applications for conditional commitment to closing was 41 and the maximum number of days elapsed was 407.

<sup>13</sup>The minimum number of days elapsed for all applications from intake to closing was 267 and the maximum number of days elapsed was 1,731.

<sup>14</sup>The minimum number of days elapsed for all applications from intake to rejection was 9 and the maximum number of days elapsed was 1,046.

From September 4, 2009, to July 29, 2011—a period of nearly 2 years—the LGP closed \$5.8 billion in loan guarantees for 13 applications under section 1705. In the last few months before the authority for section 1705 loan guarantees expired, the LGP accelerated its closings of section 1705 applications that had reached the conditional commitment stage. Thus, over the last 2 months before the authority for section 1705 expired, the LGP closed an additional \$9.3 billion in loan guarantees for 17 applications under section 1705.<sup>21</sup> The program did not use about \$600 million of the \$2.5 billion that Congress appropriated to pay credit subsidy costs before the section 1705 authority expired, and these funds were no longer available for use by LGP.

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<sup>21</sup>This effort was preceded by DOE's announcement on May 10, 2011, that the LGP would focus on 18 applications that officials believed were most likely to meet all the requirements for closing and begin construction prior to the September 30, 2011, expiration date.

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## The LGP Does Not Maintain Consolidated Information on Application Status

When we requested data from the LGP on the identity of applicants, status, and key dates for review of all the applications to its nine solicitations, the LGP did not have consolidated information on application status readily available. Instead, it had to assemble these data from various sources.

To respond to our initial data request, LGP staff provided information from the following five sources:

- "Origination portfolio" spreadsheets, which contain information for applications that are in the due diligence stage of the review process. These spreadsheets contain identifying information, the solicitation applied under, commitment or closing status, type of technology, overall cost, proposed or closed loan amount, and expected or actual approval dates. Information in these spreadsheets is limited. For example, they do not contain dates that the applicant completed each stage and do not have information on applications that have been rejected or withdrawn.
- "Tear sheet" summaries for each application, which give current status and basic facts about the project and its technology, cost, finances, and strengths and weaknesses. Tear sheets are updated periodically, or as needed, but LGP officials could not easily consolidate them because they were kept in word processing software that does not have analysis or summarization capabilities.
- "Application trackers," which are spreadsheets that give basic descriptive information and status of applications for some solicitations. LGP staff said they were maintained for most, but not all, solicitations.
- "Project Tracking Information" documents showing graphic presentations of application status summaries, loan guarantee amounts requested, technology type, planned processing dates, and procurement schedules for technical reports. These documents were updated manually through December 20, 2010.
- "Credit subsidy forecasts," which are documents that track the actual or projected credit subsidy costs of the section 1705 projects in various stages of the review process and the cumulative utilization of credit subsidy funding.

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LGP staff needed over 3 months to assemble the data and fully resolve all the errors and omissions we identified. LGP staff also made further changes to some of these data when we presented our analysis of the data to the LGP in October 2011.<sup>22</sup> According to LGP officials in 2010, the program had not maintained up-to-date and consolidated documents and data. An LGP official said at the time that LGP considered it more important to process loan guarantee applications than to update records. Because it took months to assemble the information required for our review, it is also clear that the LGP could not be conducting timely oversight of the program. Federal regulations require that records be kept to facilitate an effective and accurate audit and performance evaluation. These regulations—along with guidance from the Department of the Treasury and OMB—provide that maintaining adequate and proper records of agency activities is essential to oversight of the management of public resources.<sup>23</sup>

In addition, under federal internal control standards, federal agencies are to employ control activities, such as accurately and promptly recording transactions and events to maintain their relevance and value to management on controlling operations and making decisions.<sup>24</sup> Under these standards, managers are to compare actual program performance to planned or expected results and analyze significant differences. Managers cannot readily conduct such analysis of the LGP if the agency does not maintain consolidated information on applications to the program and their status. Moreover, the fact that it took the LGP 3 months to aggregate data on the status of applications for us suggests that its managers have not had readily accessible and up-to-date information and have not been doing such analysis on an ongoing basis. This is not consistent with one of the fundamental concepts of internal control, in which such control is not a single event but a series of actions and activities that occur throughout an entity's operations and on an ongoing

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<sup>22</sup>Errors and omissions included missing or incorrect dates associated with an applicant's progression to the next stage of LGP review; incorrect status (e.g., application listed as both withdrawn and rejected); inconsistent entries related to the loan guarantee amount requested by the applicant; and no status given.

<sup>23</sup>10 C.F.R. § 609.10(f)(1); U.S. Department of the Treasury, *Managing Federal Receivables A Guide for Managing Loans and Administrative Debt*, Financial Management Service (Washington, D.C.: 2005); and OMB Circular A-130.

<sup>24</sup>GAO, *Standards for Internal Control in the Federal Government*, GAO/AIMD-00-21.3.1 (Washington, D.C.: November 1999).

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basis. Thus, providing managers with access to aggregated, updated data could facilitate more efficient management of the LGP.

Furthermore, without consolidated data about applicants, LGP actions, and application status, LGP staff may not be able to identify weaknesses, if any, in the program's application review process and approval procedures. For example, consolidated data on application status would provide a comprehensive snapshot of which steps of the review process are taking longer than expected and may need to be addressed. If program data were consolidated in an electronic tracking system, program managers could quickly access information important to managing the LGP, such as the current amount of credit subsidy obligated, as well as whether the agency is consistently complying with certain procedural requirements under its policies and regulations that govern the program. In addition, the program cannot quickly respond to requests for information about the program as a whole from Congress or program auditors.

In March 2011, the LGP acknowledged the need for such a system. According to the March 2011 LGP summary of its proposed data management project, as the number of applications, volume of data and records, and number of employees increased, the existing method for storing and organizing program data and documents had become inadequate, and needed to be replaced. In October 2011, LGP officials stated that while the LGP has not maintained a consolidated application tracking database across all solicitations, the program has started to develop a more comprehensive business management system that includes a records management system called "iPortal" that also could be used to track the status of applications. Officials did not provide a timetable for using iPortal to track the status of applications but said that work is under way on it. However, until iPortal or some other system can track applications' status, the LGP staff cannot be assured that consolidated information on application status necessary to better manage the program will be available.

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## The LGP Did Not Always Adhere to Its Review Process, Which May Pose Risks and Result in Inconsistent Treatment

We identified 43 key steps in the LGP's guidance establishing its review process for assessing and approving loan guarantee applications. The LGP followed most of its established review process, but the LGP's actual process differed from this established process at least once on 11 of the 13 applications we reviewed, in part because the process was outdated. In some cases, LGP did not perform applicable review steps and in other cases we could not determine whether the LGP had completed review steps. Furthermore, we identified more than 80 instances of deficiencies in documentation of the LGP's reviews of the 13 applications, such as missing signatures or dates. It is too early to evaluate the impact of the specific differences we identified on achieving program goals, but we and the DOE Inspector General have reported that omitting or poorly documenting review steps may pose increased financial risk to the taxpayer and result in inconsistent treatment of applications.

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## The LGP Did Not Consistently Follow Its Established Review Process, in Part Because the Process Was Outdated

We identified 43 key steps in the LGP credit policies and procedures manual and its other guidance that establish the LGP's review process for assessing and approving loan guarantee applications. Not all 43 steps are necessary for every application, since the LGP's guidance lets officials tailor aspects of the review process on an ad hoc basis to reflect the specific needs of the solicitation. For example, under the EERE 08 solicitation, the LGP required two parts of intake review for applications involving large projects that integrate multiple types of technologies, but it required only one part for small projects. Furthermore, according to LGP officials, they have changed the review process over time to improve efficiency and transparency, so the number of relevant steps also depends on when the LGP started reviewing a given application. LGP guidance recognizes the need for such flexibility and maintains that program standards and internal control need to be applied transparently and uniformly to protect the financial interests of the government. For more information on the key steps we identified, see appendix III.

According to private lenders we contacted who finance energy projects, the LGP's established review process is generally as stringent as or more stringent than those lenders' own due diligence processes. For example, like the LGP, private lenders evaluate a project's proposed expenses and income in detail to determine whether it will generate sufficient funds to support its debt payments. In addition, private lenders and the LGP both rely on third-party expertise to evaluate the technical, legal, and marketing risks that might affect the payments. Lenders who were not participating in the LGP generally agreed that the LGP's process, if followed, should provide reasonable management of risk. Some lenders

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that sponsored applications under the FIPP solicitation said that the LGP's review process was more rigorous than their own. They said this level of rigor was not warranted for the FIPP solicitation because it covered commercial technology, which is inherently less risky than the innovative technologies covered by other solicitations. Some private lenders we spoke with also noted that financing an innovative energy project involves a certain amount of risk that cannot be eliminated, and one lender said that a failure rate of 2 or 3 percent is common, even for the most experienced loan officers.

However, we found that the LGP did not always follow the review process in its guidance. The LGP completed most of the applicable review steps for the 6 applications that we reviewed in full, but its actual process differed from the established process at least once on 5 of the 6 applications we reviewed. We also conducted a more limited examination of 7 additional applications, in which we examined the steps where the actual process differed from the established process for the first 6 applications. We again found that the LGP's actual process differed from its established process at least once on 6 of the 7 applications. Table 4 summarizes review steps for which we either identified differences or could not determine whether the LGP completed a particular review step across all 13 applications. The 13 applications we reviewed represent all of the applications that had reached conditional commitment or closing, as of December 31, 2010, excluding 3 applications that had applied under the earliest solicitation, since the LGP's review process was substantially different for these 3 applications.<sup>25</sup>

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<sup>25</sup>The three excluded applications were from Solyndra, Beacon Power, and Sage Electrochromics, LLC. One of the 13 applications we reviewed was for a project with multiple sponsors. In this instance, we only reviewed the application with the largest loan guarantee amount request.



**Table 5: LGP's Adherence to Its Review Process for 13 Applications with Closed or Conditionally Committed Loan Guarantees, by Review Stage and Step**

Review stage	Review step description	Number of applications examined for review step	Not applicable	Applicable but not performed	Could not determine if step was performed	Completed
Intake	Part I technical review	6	2	0	1	3
	Solicitation-specific ranking process for EERE 08 applicants	13	5	0	8	0
	Obtain CRB approval prior to due diligence	13	3	6	0	4
Due diligence	Review of applicant's management (e.g., background check, credit check, Internal Revenue Service check)	6	0	2	1	3
	Obtain final independent engineering report prior to conditional commitment	13	0	6	0	7
	Obtain final independent marketing report prior to conditional commitment	13	3	1	1	8
	Complete OMB review of the LGP credit subsidy cost estimate	13	0	3	7	3
Conditional commitment to closing	Collect a full fee from an applicant at conditional commitment	13	0	1	0	12
<b>Total</b>			<b>13</b>	<b>19</b>	<b>18</b>	<b>40</b>

Source: GAO analysis of LGP documentation supporting its application reviews.

Note: These differences represent our review of LGP documents for all 43 key review steps for six applications, and a targeted review of 9 steps for seven applications.

For the 13 applications we examined, we found 19 differences between the actual reviews the LGP conducted and the applicable review process steps established in LGP guidance. In most of these instances, according to LGP officials, the LGP did not perform an applicable review step because it had made changes intended to improve the process but had not updated the program's credit policies and procedures manual or other guidance governing the review process.

The following describes the 19 differences we identified, along with the LGP's explanations:

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- In six cases, the LGP did not obtain CRB approval prior to due diligence, contrary to the March 2009 version of its credit policies and procedures manual. This version states that CRB approval is an important internal check to ensure only the most promising projects proceed to due diligence. LGP officials explained that this step was not necessary for these applications because the CRB had verbally delegated to the LGP its authority to approve applications before these projects proceeded to due diligence. However, LGP documents indicate that CRB delegated approval authority after these projects had proceeded to due diligence.<sup>26</sup> According to an LGP official, the delegation of authority was not retroactive.
  - In seven cases, the LGP did not obtain final due diligence reports from independent consultants prior to conditional commitment, as required by its credit policies and procedures manual. Through their reporting, these independent third parties provide key input to the LGP's loan underwriting and credit subsidy analyses in technical, legal, and other areas such as marketing, as necessary. LGP officials said that it was a preferable practice to proceed to conditional commitment with drafts of these reports and obtain a final report just prior to closing. They said this practice helps the LGP reduce financial risk, since it allows the LGP to base its decision to close the loan guarantee on final reports rather than reports completed 1 to several months earlier. An LGP official explained that this part of the review process had evolved to meet the program's needs, but that these changes were not yet reflected in the manual. However, the LGP does not appear to have implemented this change consistently. Specifically, over the course of several months in 2009 and 2010, the LGP alternated between the old and the new process concerning final due diligence reports from independent consultants. In commenting on a draft of this report, LGP officials said that in all cases they received final independent consultant reports before the closing of the loan guarantees. Because the LGP's policies and procedures manual at the time required final reports at the conditional commitment stage, we reviewed the reports available at conditional commitment and did not review whether LGP received final reports before closing.

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<sup>26</sup>The documents LGP provided for this step indicated that the CRB decision to delegate its authority occurred on June 25, 2009. The projects in question proceeded to due diligence in May 2009.

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- In three cases, the LGP conditionally committed to a loan guarantee before OMB had completed its informal review of the LGP's credit subsidy cost estimate. According to the credit policies and procedures manual, OMB should be notified each time the LGP estimates the credit subsidy cost range, and informal discussions between OMB and LGP should ensue about the LGP estimate. This cost is to be paid by the borrower for all section 1703 projects to date and by the federal government for section 1705 projects. LGP officials explained that, in two of these cases, the LGP had provided OMB with their credit subsidy estimates, but that OMB had not completed its review because there were unresolved issues with the LGP estimates. LGP officials did not provide an explanation for the third case. Contrary to the manual, LGP officials said that OMB's informal review of the credit subsidy estimates for these applications was not a necessary prerequisite to conditional commitment because the actual credit subsidy cost is calculated just prior to closing and is formally approved by OMB. Furthermore, under section 1705, the government rather than the borrower, was to pay credit subsidy costs. Accordingly, the LGP used these credit subsidy estimates for internal planning purposes rather than for calculating a fee to the applicant. In contrast, the LGP completed OMB's informal review prior to conditionally committing to at least three of the other loan guarantees we reviewed—including one section 1705 project—and thus the LGP did not perform this step consistently across all projects. In its October 2011 update of its credit policies and procedures manual, the LGP retained the requirement that OMB review the LGP's credit subsidy cost estimate prior to conditional commitment. Further, the updated guidance added that formal discussions with OMB may be required each time OMB reviews LGP's credit subsidy cost estimate and should result with their approval.

In two cases, the LGP did not complete its required background check for project participants. The documents provided indicate that LGP did not determine whether the applicants had any delinquent federal debt prior to conditional commitment. In one of these cases, LGP officials said that the delinquent federal debt check was completed after conditional commitment. In the other case, the documents indicate that the sponsor did not provide a statement on delinquent debt, and LGP officials confirmed that LGP did not perform the delinquent debt check prior to conditional commitment.

- In one case, the LGP did not collect the full fee from an applicant at conditional commitment as required by the EERE 08 solicitation. According to a LGP official, the LGP changed its policy to require 20

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percent of this fee at conditional commitment instead of the full fee specified in the solicitation, in response to applicant feedback. This official said the policy change was documented in the EERE 09 solicitation, which was published on July 29, 2009. However, this particular application moved to conditional commitment on July 10, 2009, prior to the formal policy change.

As outlined in these cases, the LGP departed from its established procedures because, in part, the procedures had not been updated to reflect all current review practices. The version of the manual in use at the time of GAO's review was dated March 5, 2009, even though the manual states that it was meant to be updated at least on an annual basis and more frequently if needed. The LGP issued its first update of its credit policies and procedures manual on October 6, 2011,<sup>27</sup> even though the 2009 manual states that it was meant to be updated at least annually and more frequently if needed. We reviewed the revised manual and found that the revisions addressed many of the differences that we identified between the LGP's established and actual review processes. The revised manual also states that LGP analyses should be properly documented and stored in the new LGP electronic records management system. However, the revised guidance applies to loan guarantee applications processed after October 6, 2011, but not to the 13 applications we reviewed or to any of the 30 loan guarantees the LGP has closed to date.

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## The LGP Did Not Always Fully Document Review Steps

In addition to the differences between the actual and established review processes, in another 18 cases, we could not determine whether the LGP had performed a given review step. In some of these cases, the documentation did not demonstrate that the LGP had applied the required criteria. In other cases, the documentation the LGP provided did not show that the step had been performed. The following discusses these cases:

- In one case, we could not determine whether LGP guidance calls for separate part I and part II technical reviews for a nuclear front-end application or allows for a combined part I and part II technical review. The LGP performed a combined part I and part II technical review.

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<sup>27</sup>U.S. Department of Energy, *Credit Policies and Procedures Manual for Implementing Title XVII of the Energy Policy Act of 2005, Revised*, Loan Programs Office (Washington, D.C.: Oct. 6, 2011).

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- In eight cases, we could not determine the extent to which the LGP applied the required criteria for ranking applications to the EERE 08 solicitation. The LGP's guidance for this solicitation requires this step to identify "early mover" projects for expedited due diligence. The LGP expedited four such applications but the documentation neither demonstrated how the LGP used the required criteria to select applications to expedite nor why other applications were not selected.
  - In one case, we could not determine whether the LGP completed its required background check for project participants. The documents provided indicated there were unresolved questions involving one participant's involvement in a \$17 billion bankruptcy and another's pending civil suit.
  - In one case, we could not determine whether the LGP had received a draft or final marketing report prior to conditional commitment in accordance with its guidance. The LGP provided a copy of the report prepared before closing but did not provide reports prepared before conditional commitment.
  - In seven cases, LGP either did not provide documents supporting OMB's completion of its informal review of the LGP's estimated credit subsidy range before conditional commitment, or the documentation the LGP provided was inconclusive.

We also found 82 additional documentation deficiencies in the 13 applications we reviewed. For example, in some cases, there were no dates or authors on the LGP documents. The documentation deficiencies make it difficult to determine, for example, whether steps occurred in the correct order or were executed by the appropriate official. The review stage with the fewest documentation deficiencies was conditional commitment to closing, when 1 of the 82 deficiencies occurred. Table 6 shows the instances of deficient documentation that we identified.

**Table 6: Documentation Deficiencies Identified During 13 Application Reviews**

Review phase	Missing author	Missing title or other identification	Missing final version or a signature	Missing date	Missing data or analysis	Inconsistent with other project documents
Intake	15	6	2	17	8	1
Due diligence	12	0	6	6	5	3
Conditional commitment to closing	0	0	0	0	0	1
<b>Total</b>	<b>27</b>	<b>6</b>	<b>8</b>	<b>23</b>	<b>13</b>	<b>5</b>

Source: GAO analysis of LGP documentation supporting its application reviews.

Note: These deficiencies represent our review of LGP documents for all 43 review steps for six applications and a targeted review of 9 steps for seven applications.

During our review, the LGP did not have a central paper or electronic file containing all the documents supporting the key review steps we identified as being part of the review process. Instead, these documents were stored separately by various LGP staff and contractors in paper files and various electronic storage media. As a result, the documents were neither readily available for us to examine, nor could the LGP provide us with complete documentation in a timely manner. For example, we requested documents supporting the LGP's review for six applicants in January 2011. For one of the applications, we did not receive any of the requested documents supporting the LGP's intake application reviews until April 2011. Furthermore, for some of the review steps, we did not receive documents responsive to our request until November 2011 and, as we discussed earlier, in 18 cases we did not receive sufficient documentation to determine whether the LGP performed a given review step. Federal regulations and guidance from Treasury and OMB provide that maintaining adequate and proper records of agency activities is essential to accountability in the management of public resources and the protection of the legal and financial rights of the government and the public.<sup>28</sup> Furthermore, under the federal standards for internal control, agencies are to clearly document internal control, and the documentation is to be readily available for examination in paper or electronic form.

<sup>28</sup>36 C.F.R. § 1222.22; U.S. Department of the Treasury, *Managing Federal Receivables: A Guide for Managing Loans and Administrative Debt*, Financial Management Service (Washington, D.C., 2005) and OMB Circular A-130.

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Moreover, the standards state that all documentation and records should be properly managed and maintained.<sup>29</sup>

As stated above, the LGP recognized the need for a recordkeeping system to properly manage and maintain documentation supporting project reviews. In March 2011, the LGP adopted a new records management system called “iPortal” to electronically store documents related to each loan application and issued guidance for using this system. As of November 1, 2011, LGP officials told us that the system was populated with data or records relevant to conditionally committed and closed loan guarantees and that they plan to fully populate it with documentation of the remaining applications in a few months. The LGP was able to provide us with some additional documents from its new system in response to an early draft of this report, but the LGP did not provide additional documentation sufficient to respond to all of the issues we identified. Accordingly, other oversight efforts may encounter similar problems with documentation despite the new system.

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## Differences Between the Actual and Established Processes and Incomplete Documentation May Pose Risks

It is too early in the loan guarantees’ terms to assess whether skipping or poorly documenting review steps will result in problems with the guarantees or the program. However, we and the DOE Inspector General have reported that omitting or poorly documenting review steps may lead to a risk of default or other serious consequences. Skipping or poorly documenting steps of the process during intake can lead to several problems. First, it reduces the LGP’s assurance that it has treated applications consistently and equitably. This, in turn, raises the risk that the LGP will not select the projects most likely to meet its goals, which include deploying new energy technologies and ensuring a reasonable prospect of repayment. In July 2010, we reported that the inconsistent treatment of applicants to the LGP could also undermine public confidence in the legitimacy of the LGP’s decisions. Furthermore, DOE’s Inspector General reported in March 2011 that incomplete records may impede the LGP’s ability to ensure consistency in the administration of

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<sup>29</sup>GAO/AIMD-00-21.3 states in part that internal control and all transactions and other significant events need to be clearly documented, and the documentation should be readily available for examination. OMB Circular A-130, *Management of Federal Information Resources* requires agencies to ensure that records management adequately document agency activities and ensure access to the records regardless of form or medium.

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the program, make informed decisions, and provide information to Congress, OMB, and other oversight bodies.<sup>30</sup> The Inspector General also stated that, in the event of legal action related to an application, poor documentation of the LGP's decisions may hurt its ability to prove that it applied its procedures consistently and treated applicants equitably. Moreover, incomplete records may leave DOE open to criticism that it exposed taxpayers to unacceptable financial risks.

Differences between the actual and established review processes that occur during or after due diligence may also lead to serious consequences. These stages of the review process were established to help the LGP identify and mitigate risks. Omitting or poorly documenting its decisions during these stages may affect the LGP's ability to fully assess and communicate the technical, financial, and other risks associated with projects. This could lead the program to issue guarantees to projects that pose an unacceptable risk of default. Complete and thorough documentation of decisions would further enable DOE to monitor the loan guarantees as projects are developed and implemented. Furthermore, without consistent documentation, the LGP may not be able to fully measure its performance and identify any weaknesses in its implementation of internal procedures.

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## Conclusions

Through the over \$30 billion in loan guarantees and loan guarantee commitments for new and commercial energy technologies that DOE has made to date, the agency has set in motion a substantial federal effort to promote energy technology innovation and create jobs. DOE has also demonstrated its ability to make section 1705 of the program functional by closing on 30 loan guarantees. It has also improved the speed at which it was able to move section 1705 applications through its review process. To date, DOE has committed to six loan guarantees under section 1703 of the program, but it has not closed any section 1703 loan guarantees or otherwise demonstrated that the program is fully functional. Many of the section 1703 applications have been in process since 2008 or before. As DOE continues to implement section 1703 of the LGP, it is even more important that it fully implement a consolidated system for overseeing the application review process and that LGP adhere to its review process and

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<sup>30</sup>U.S. Department of Energy, Office of Inspector General, *Audit Report: The Department of Energy's Loan Guarantee Program for Clean Energy Technologies*, DOE/IG-0849 (Washington, D.C.: Mar. 3, 2011).



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document decisions made under updated policies and procedures. It is noteworthy that the process LGP developed for performing due diligence on loan guarantee applications may equal or exceed those used by private lenders to assess and mitigate project risks. However, DOE does not have a consolidated system for documenting and tracking its progress in reviewing applications fully implemented at this time. As a result, DOE may not readily access the information needed to manage the program effectively and to help ensure accountability for federal resources. Proper recordkeeping and documentation of program actions is essential to effective program management. The absence of such documentation may have prevented LGP managers, DOE, and Congress from having access to the timely and accurate information on applications necessary to manage the program, mitigate risk, report progress, and measure program performance. DOE began to implement a new records management system in 2011, and LGP staff stated that the new system will enable them to determine the status of loan guarantee applications and to document review decisions. However, the LGP has neither fully populated the system with data or records on all applications it has received nor its decisions on them. Nor has DOE committed to a timetable to complete the implementation of the new records management system. Until the system has been fully implemented, it is unclear whether the system will enable the LGP to both track applications and adequately document its review decisions.

In addition, DOE did not always follow its own process for reviewing applications and documenting its analysis and decisions, potentially increasing the taxpayer's exposure to financial risk from an applicant's default. DOE has not promptly updated its credit policies and procedures manual to reflect its changes in program practices, which has resulted in inconsistent application of those policies and procedures. It also has not completely documented its analysis and decisions made during reviews, which may undermine applicants' and the public's confidence in the legitimacy of its decisions. Furthermore, the absence of adequate documentation may make it difficult for DOE to defend its decisions on loan guarantees as sound and fair if it is questioned about the justification for and equity of those decisions. DOE has recently updated its credit policies and procedures manual, which, if followed and kept up to date, should help the agency address this issue.

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## Recommendations for Executive Action

To better ensure that LGP managers, DOE, and Congress have access to timely and accurate information on applications and reviews necessary to manage the program effectively and to mitigate risks, we recommend that the Secretary of Energy direct the Executive Director of the Loan Programs Office to take the following three actions:

- Commit to a timetable to fully implement a consolidated system that enables the tracking of the status of applications and that measures overall program performance.
- Ensure that the new records management system contains documents supporting past decisions, as well as those in the future.
- Regularly update the LGP's credit policies and procedures manual to reflect current program practices to help ensure consistent treatment for applications to the program.

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## Agency Comments and Our Evaluation

We provided a copy of our draft report to DOE for review and comment. In written comments signed by the Acting Executive Director of the Loan Programs Office, it was unclear whether DOE generally agreed with our recommendations. The Acting Executive Director stated subsequently to the comment letter that DOE disagreed with the first recommendation and agreed with second and third recommendations. In its written comments, DOE also provided technical and editorial comments, which were incorporated as appropriate. DOE's comments and our responses to specific points can be found in appendix IV of this report.

Concerning our first recommendation that LGP commit to a timetable to fully implement a consolidated system that enables the tracking of the status of applications and that measures overall program performance, in its written comments, DOE states that the LGP believes that it is important that our report distinguish between application tracking and records management. We believe we have adequately distinguished the need for application tracking and management of documentation. These are addressed in separate sections of our report and in separate recommendations. DOE also states that LGP has placed a high priority on records management and is currently implementing a consolidated state-of-the-art records management system. In the statement subsequent to DOE's written comments, the Acting Executive Director stated the office did not agree to a hard timetable for implementing our first recommendation. As stated in the report draft, under federal internal

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control standards, agencies are to employ control activities, such as accurately and promptly recording transactions and events to maintain their relevance and value to management on controlling operations and making decisions. Because LGP had to manually assemble the application status information we needed for this review, and because this process took over 3 months to accomplish, we continue to believe DOE should develop a consolidated system that enables the tracking of the status of applications and that measures overall program performance. This type of information will help LGP better manage the program and respond to requests for information from Congress, auditors, or other interested parties.

Concerning our second recommendation that LGP ensure that its new records management system contains documents supporting past decisions as well as those in the future, subsequent to DOE's written comments, the Acting Executive Director stated that DOE agreed.

Concerning our third recommendation that LGP regularly update the credit policies and procedures manual to reflect current program practices, subsequent to DOE's written comments, the Acting Executive Director stated that DOE agreed.

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We are sending copies of this report to the appropriate congressional committees, the Secretary of Energy, and other interested parties. In addition, this report also is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or [ruscof@gao.gov](mailto:ruscof@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff that made major contributions to this report are listed in appendix V.



Frank Rusco  
Director, Natural Resources and Environment

# Appendix I: Objectives, Scope, and Methodology

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This appendix details the methods we used to examine the Department of Energy's (DOE) Loan Guarantee Program (LGP). We have reported four times and testified three times on this program, including two previous reports in response to the mandate in the 2007 Revised Continuing Appropriations Resolution to review DOE's execution of the LGP and to report our findings to the House and Senate Committees on Appropriations. (See Related GAO Products.) Because of questions regarding inconsistent treatment of applications raised by the most recent report in this mandated series,<sup>1</sup> this report, also in response to the mandate, assesses (1) the status of the applications to the LGP's nine solicitations and (2) the extent to which the LGP has adhered to its process for reviewing applications for loans that the LGP has committed to or closed.

To gather information on the program, we met with the LGP's management and staff from each of the program's divisions involved with the LGP's review of loan guarantee applications from intake to closing. In general, we reviewed the laws, regulations, policies and procedures governing the program and pertinent agency documents, such as solicitations announcing loan guarantee opportunities. We reviewed prior GAO and DOE Inspector General reports performed under or related to our mandate to audit the LGP. In addition, we gathered agency data and documents on the loan guarantee applications in process, those that had received a DOE commitment, and those that had been closed.

To determine the status of the applications to all nine of the solicitations for our first objective, we explored the LGP's available sources to see what data the program had compiled on the applications received and their current status in the review process. Because the LGP did not have comprehensive or complete application status data, we tailored a data request to collect data on the status of all 460 applications to the program. In consultation with agency officials, we prepared a data collection form requesting basic information on the identity, authority, amount requested, status, key milestone dates, and type of energy technology for all of the applications to date. These data were to provide a current snapshot of the program by solicitation and allow analysis of various characteristics. To ease the data collection burden, we populated the spreadsheets for each solicitation with the limited data from available

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<sup>1</sup>GAO-10-627.

sources. LGP staff or contractors familiar with each solicitation completed the spreadsheets, and these spreadsheets were reviewed by managers before they were forwarded to GAO. We assessed the reliability of the data the LGP provided by reviewing these data, comparing them to other sources, and following up repeatedly with the agency to clarify questions and inconsistencies, and obtain missing data. This process enabled us to develop up-to-date program-wide information on the status of applications. This process resulted in data that were complete enough to describe the status of the program. Once we collected these data, we found them to be sufficiently reliable for our purposes. The LGP updated its March 2011 applicant status data as of July 29, 2011, and we obtained additional data on the conditional commitments and closings made by the September 30, 2011, expiration of the section 1705 authority for loan guarantees with a credit subsidy. To maintain consistency between the application status data initially provided by the LGP and later data updates, we use the terms application and project interchangeably, although in some cases multiple applications were submitted for a single project.

To assess the LGP's execution of its review process for our second objective, we first analyzed the law, regulations, policies, procedures, and published solicitations for the program and interviewed agency staff to identify the criteria and the key review process steps for loan guarantees, as well as the documents that supported the process. We provided a list of the key review steps we identified to LGP officials, and incorporated their feedback as appropriate. Based on the key review steps and supporting documentation identified by LGP staff, we developed a data collection instrument to analyze LGP documents and determine whether the LGP followed its review process for the applications reviewed. Since the LGP's review process varied across solicitations, we tailored the data collection instrument to meet the needs of the individual solicitations. We then selected a nonprobability sample of 6 applications from the 13 that had received conditional commitments from DOE or had progressed to closing by December 31, 2010, and had not applied under the Mixed 2006 solicitation, since the LGP's review process was substantially different for this solicitation and not directly comparable to later solicitations.<sup>2</sup> We requested documentation for these 6 applications

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<sup>2</sup>The three excluded Mixed 2006 applications were from Solyndra, Beacon Power, and Sage Electrochromics, LLC. One of the 13 applications we reviewed was for a project with multiple sponsors. In this instance, we only reviewed the application with the largest loan guarantee amount request.

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representing a range of solicitations and project types. We selected our initial sample to represent each of the five solicitations where applications had reached conditional commitment and different LGP investment officers to reduce the burden on LGP staff. We requested the documents supporting the LGP's review process from intake to closing and examined them to determine whether the applicable review steps were carried out. While we examined whether the applicable review steps were carried out, we did not examine the content of the documents and the quality of work supporting them. Where the documents were not clear about completion of the process, showed potential differences from the review process, or raised questions, we followed up with program officials to obtain an explanation and, as applicable, documentation supporting the explanation. On key questions where we identified differences from the review process for the initial sample of 6, we conducted a targeted review of documents for the 7 remaining applications that had reached conditional commitment or closed prior to December 31, 2010, excluding Mixed 2006 applicants. The six loan guarantee application files reviewed in full and the seven files reviewed in part were a nongeneralizable sample of applications.

To identify the initial universe of private lenders with experience financing energy projects, we reviewed the list of financial institutions that had submitted applications to the LGP under the Financial Institution Partnership Program (FIPP) solicitation. We used these firms as a starting point because of their knowledge about DOE's program and processes. To identify financial institutions involved in energy sector project finance outside of FIPP, we searched or contacted industry associations, industry conferences, and other industry groups in the same energy sectors that LGP solicitations to date have targeted. We interviewed seven private lenders identified through this process using a set of standard questions and the outline of the DOE's review process to gain insights on its comparability to the review process for underwriting loans in the private sector.

We conducted this performance audit from September 2010 to February 2012 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

# Appendix II: Tables of Loan Guarantees Conditionally Committed or Closed

The following tables provide basic details on the loan guarantee applications that received a conditional commitment by September 30, 2011, or had proceeded to closing by that date. Table 7 lists applications under section 1703 with conditional commitments. Table 8 lists section 1705-eligible applications with conditional commitments that did not reach closing by the expiration of the section 1705 authority on September 30, 2011. Table 9 lists the section 1705 applications with conditional commitments that reached closing by the expiration of the section of the 1705 authority on September 30, 2011.

**Table 7: Section 1703 Applications Reaching Conditional Commitment as of September 30, 2011, by Solicitation**

Dollars in millions

Solicitation	Sponsor	Name	Technology	Date conditional commitment offered	Guarantee amount
Mixed, 8/8/06	SAGE Electrochromics, LLC	SAGE Electrochromics	Energy Efficiency	3/5/2010	\$72
EERE 08, 6/30/08	ADA-ES, Inc.	Red River	Energy Efficiency	12/8/2009	245
Nuclear Front-End, 6/30/08	AREVA NC, Inc.	Eagle Rock Enrichment Facility	Nuclear Front-End	5/20/2010	2,000
Nuclear Power, 6/30/08	Georgia Power Company	Vogtle 3&4	Nuclear Generation	2/16/2010	3,460
Nuclear Power, 6/30/08	MEAG	Vogtle 3&4	Nuclear Generation	2/16/2010	1,809
Nuclear Power, 6/30/08	Oglethorpe Power Corp.	Vogtle 3&4	Nuclear Generation	2/16/2010	3,057
<b>Total</b>					<b>\$10,643</b>

Source: GAO analysis of DOE data.

**Table 8: Section 1705-Eligible Applications Reaching Conditional Commitment as of September 30, 2011, by Solicitation**

Dollars in millions

Solicitation	Sponsor	Name	Technology	Date conditional commitment offered	Guarantee amount
EERE 08, 6/30/08	Nordic Windpower, Ltd.	Nordic Project	Wind Manufacturing	7/2/2009	\$16
EERE 09, 7/29/09	Solar Millennium, LLC	Blythe Solar Power Project Plant	Solar Generation	4/18/2011	2,105
FIPP, 10/7/09	First Solar	Topaz (CA)	Solar Generation	6/30/2011	1,930
FIPP, 10/7/09	Multiple	SolarStrong (USA)	Solar Generation	9/8/2011	344
<b>Total</b>					<b>\$4,395</b>

Source: GAO analysis of DOE data.

Table 9: Section 1705-Eligible Applications Reaching Closing as of September 30, 2011, By Solicitation

Dollars in millions

Solicitation	Sponsor	Name	Technology	Date conditional commitment offered	Date closed	Guarantee amount
Mixed, 8/8/06	Beacon Power Corp.	Beacon Power	Transmission	7/2/2009	8/6/2010	\$43
Mixed, 8/8/06	BrightSource Energy, Inc.	Ivanpah 1	Solar Generation	2/22/2010	4/5/2011	520
Mixed, 8/8/06	POET, LLC	Project LIBERTY	Biomass	7/7/2011	9/23/2011	105
Mixed, 8/8/06	Solyndra, Inc.	Solyndra Fab 2, LLC	Solar Manufacturing	3/20/2009	9/4/2009	535
EERE 08, 6/30/08	Abengoa Solar, Inc.	Solana Project	Solar Generation	7/2/2010	12/20/2010	1,446
EERE 08, 6/30/08	Abound Solar, Inc.	Abound Solar Manufacturing, LLC	Solar Manufacturing	7/2/2010	12/9/2010	400
EERE 08, 6/30/08	AES Energy Storage, LLC	Project Dyno	Transmission	7/30/2010	12/22/2010	17
EERE 08, 6/30/08	BrightSource Energy, Inc.	Ivanpah 2	Solar Generation	2/22/2010	4/5/2011	551
EERE 08, 6/30/08	BrightSource Energy, Inc.	Ivanpah 3	Solar Generation	2/22/2010	4/5/2011	556
EERE 08, 6/30/08	First Wind Energy, LLC	Kahuku Wind Power	Wind Generation	2/18/2010	7/26/2010	117
EERE 08, 6/30/08	SoloPower, Inc.	SoloPower Manufacturing Facility	Solar Manufacturing	2/17/2011	8/19/2011	197
EERE 08, 6/30/08	U.S. Geothermal, Inc.	Neal Hot Springs	Geothermal	6/9/2010	2/23/2011	97
EERE 09, 7/29/09	1366 Technologies, Inc.	Project Eagle	Solar Manufacturing	6/17/2011	9/8/2011	150
EERE 09, 7/29/09	Abengoa Bioenergy U.S. Holding	Abengoa Bioenergy Biomass of Kansas	Biomass	8/19/2011	9/29/2011	132
EERE 09, 7/29/09	Abengoa Solar, Inc.	Mojave Solar Project	Solar Generation	6/14/2011	9/23/2011	1,202
EERE 09, 7/29/09	Cogentrix Solar Services, LLC	Alamosa Solar Generating Project	Solar Generation	5/10/2011	9/9/2011	91
EERE 09, 7/29/09	Nextlight Renewable Energy, LLC	Antelope Valley Solar Ranch 1	Solar Generation	6/30/2011	9/30/2011	646
EERE 09, 7/29/09	Nextlight Renewable Energy, LLC	Agua Caliente	Solar Generation	1/20/2011	8/5/2011	967
EERE 09, 7/29/09	Sempre Generation	Mesquite Solar Energy	Solar Generation	6/15/2011	9/26/2011	337
EERE 09, 7/29/09	Solar Reserve, LLC	Tonopah Project	Solar Generation	5/19/2011	9/28/2011	737
EERE 09, 7/29/09	Sunpower Corp.	California Valley Solar Ranch	Solar Generation	4/12/2011	9/30/2011	1,237



Appendix II: Tables of Loan Guarantees  
Conditionally Committed or Closed

Dollars in millions

Solicitation	Sponsor	Name	Technology	Date conditional commitment offered	Date closed	Guarantee amount
EERE 09, 7/29/09	Yale University	Record Hill Wind	Wind Generation	3/3/2011	8/15/2011	102
Transmission, 7/29/09	LS Power Associates, LP	Southwest Intertie Project (SWIP) - South	Transmission	10/19/2010	2/11/2011	343
FIPP, 10/7/09	Caithness Energy, LLC	Shepherds Flat (OR)	Wind Generation	10/8/2010	12/16/2010	1,051
FIPP, 10/7/09	First Solar	Desert Sun (CA)	Solar Generation	6/30/2011	9/30/2011	1,169
FIPP, 10/7/09	Nevada Geothermal Power Company	Blue Mountain (NV)	Geothermal	6/15/2010	9/3/2010	79
FIPP, 10/7/09	NextEra	Genesis Solar (CA)	Solar Generation	6/14/2011	8/26/2011	682
FIPP, 10/7/09	Noble Environmental Power, LLC	Noble Granite (NH)	Wind Generation	6/21/2011	9/23/2011	135
FIPP, 10/7/09	Ormat Nevada, Inc.	Ormat (NV)	Geothermal	6/9/2011	9/23/2011	280
FIPP, 10/7/09	Prosun Solar Development Company, LLC	Project Amp (USA)	Solar Generation	6/22/2011	9/30/2011	1,120
<b>Total</b>						<b>\$15,044</b>

Source: GAO analysis of DOE data.

# Appendix III: Key Tasks in the LGP's Review and Approval Process for Loan Guarantee Applications

Table 10 provides basic details about key review tasks in LGP's process for reviewing and approving loan guarantee applications, as identified from our review of relevant laws, regulations, LGP guidance, published solicitations and interviews with LGP officials. These tasks formed the basis for our examination of LGP files to determine if LGP followed its review process for each of the 13 applications that had received conditional commitments from DOE or had progressed to closing by December 31, 2010, and had not applied under the Mixed 2006 solicitation.<sup>1</sup> Accordingly, the tasks listed below reflect LGP's review process for the applications we reviewed and do not reflect LGP's review process for applicants to the Mixed 2006 solicitation, which was substantially different and not directly comparable to later solicitations. Additionally, since we found minor variations in LGP's review process across the solicitations, we have noted below which tasks are only applicable under certain solicitations. If no exceptions are listed, then the particular task is applicable across all the relevant solicitations.

**Table 10: Key Review and Approval Tasks for Loan Guarantee Applications, by Review Stage**

Review stage and task	Description
<b>Intake</b>	
1. Collect part I application fee.	The first of three fees that LGP collects during the review process. LGP is required by its authorizing legislation to charge and collect sufficient fees to cover the program's administrative costs.
2. Perform part I completeness check.	LGP reviews applications using a solicitation-specific checklist to document that the application package is complete.
3. Perform innovation review ( <i>EERE 08 applicants</i> ).	LGP reviews applications to determine if the proposed project uses an innovative energy technology, as required by the program's authorizing legislation. For later solicitations, this review was incorporated into the LGP's technical review.
4. Perform part I technical review ( <i>2008 Nuclear Power and Nuclear Front-End</i> ) or commercial review ( <i>FIPP</i> ).	LGP analyzes the project's eligibility and responsiveness to statutory and program requirements, such as the project's <ul style="list-style-type: none"><li>• technical relevance against DOE requirements,</li><li>• technical approach and work plan, and</li><li>• environmental and technological benefits.</li></ul>

<sup>1</sup>The three excluded Mixed 2006 applications were from Solyndra, Beacon Power, and Sage Electrochromics, LLC. One of the 13 applications we reviewed was for a project with multiple sponsors. In this instance, we only reviewed the application with the largest loan guarantee amount request.

Review stage and task	Description
5. Perform part I financial review (2008 Nuclear Power and Nuclear Front-End).	LGP analyzes <ul style="list-style-type: none"> <li>creditworthiness elements such as sponsor/management capabilities, financial/business plans, and market factors; and</li> <li>programmatic elements such as (a) construction and start-up factors and (b) legal, regulatory, and permitting factors.</li> </ul>
6. Perform emissions review or lifecycle analysis (EERE 08 and EERE 09 applicants).	Loan guarantee applications under the EERE 08 and EERE 09 solicitations must pass an emissions analysis to meet the authorizing law's greenhouse gas emissions goals.
7. Perform review for solicitation-specific eligibility requirements. <sup>9</sup>	Depending on the solicitation, loan guarantee applications must meet certain solicitation-specific eligibility requirements, related to <ul style="list-style-type: none"> <li>certain project types,</li> <li>certain technology categories, and</li> <li>construction commencement requirements for section 1705 projects.</li> </ul>
8.a. Rank projects to identify "Early Movers" (EERE 08 only).	LGP identifies the projects that present the fewest obstacles in moving forward to begin the technical and financial review process first. The ranking factors are related to <ul style="list-style-type: none"> <li>level of environmental review required under the National Environmental Policy Act of 1970,</li> <li>financial structure,</li> <li>readiness to proceed, and</li> <li>offtake agreements if applicable (an agreement to buy all or a substantial part of the output of an energy project).</li> </ul>
8.b. Rank Projects and Identify Project Strengths and Weaknesses as part of the part I review (2008 Nuclear Power and Nuclear Front-End).	The 2008 Nuclear Power and Front-End solicitations call for an early ranking of projects. The ranking factors are related to <ul style="list-style-type: none"> <li>the prospect of repayment,</li> <li>strength of the project and sponsor, and</li> <li>regulatory status.</li> </ul>
9. Notify applicants of intent to proceed/invite part II submissions (part II submissions exclude certain EERE 08 projects).	For solicitations with a one-part intake process, applicants are notified of LGP's intent to proceed with its review. For solicitations with a two-part intake process, applicants are notified they have qualified under part I and are invited to submit application materials for part II.
10. Collect part II application fee. <sup>10</sup>	The second of three fees that LGP collects during the review process. LGP is required by the authorizing legislation to charge and collect sufficient fees to cover the program's administrative costs.
11. Perform part II completeness check.	LGP reviews applications using a solicitation-specific checklist to document that the part II application package is complete.
12. Perform part II technical review (excludes FIPP).	LGP analyzes <ul style="list-style-type: none"> <li>the project's technical relevance against DOE requirements,</li> <li>track record and experience of applicant,</li> <li>project work plan, and</li> <li>environmental benefits of project.</li> </ul>

**Appendix III: Key Tasks in the LGP's Review and Approval Process for Loan Guarantee Applications**

<b>Review stage and task</b>	<b>Description</b>
13. Perform part II financial review (excludes FIPP).	LGP analyze <ul style="list-style-type: none"> <li>• creditworthiness elements such as sponsor/management capabilities, financial/business plans, and market factors; and</li> <li>• programmatic elements such as (a) construction and start-up factors and (b) legal, regulatory, and permitting factors.</li> </ul>
14. Perform an environmental critique and synopsis.	LGP may prepare a publicly available environmental critique and synopsis to document the consideration given to environmental factors and record that the relevant environmental consequence of each alternative has been considered in its evaluation and selection process.
15. Application screening/ranking sessions for finalization of merit review scores for selections to due diligence.	To focus limited loan guarantee funds on the best applicants, LGP evaluates and competitively ranks all applications within each solicitation's cohort. This ranking is the basis for LGP's decision to invite applicants to due diligence.
16. DOE's Credit Review Board (CRB) approves projects recommended for due diligence by LGP (only projects proceeding to due diligence prior to 6/25/09).	DOE's CRB reviews LGP's recommendations of projects for due diligence and provides approval. The CRB delegated this authority to LGP on June 25, 2009, and this task was phased out for applications proceeding to due diligence following this decision.
17. Notify applicant of LGP's decision to proceed into due diligence (excludes FIPP).	After clearing requirements of parts I and II, the applicants are notified that they will proceed into due diligence.
<b>Due diligence</b>	
18. Evaluate financing plan and assess financial viability.	To evaluate the project in detail, LGP will <ul style="list-style-type: none"> <li>• thoroughly review the uses and sources of funds;</li> <li>• analyze adequacy, leverage, timing of funding;</li> <li>• review terms/rights of funding source;</li> <li>• assess the adequacy of proposed contingency/reserve funding;</li> <li>• determine compliance with program requirements from the law, final regulations, and the solicitation;</li> <li>• assess the project's financial viability, with an emphasis on the applicant's ability to repay the guaranteed portion of loan; and</li> <li>• evaluate assumptions underlying projected revenues/expenses/likelihood technical performance will be achieved.</li> </ul>
19. Perform a review of applicant's management.	LGP performs certain checks (e.g., background check, credit check, IRS check) to evaluate the key players for the loan guarantee applicant.
20. Evaluate project risks and identify risk mitigants.	To evaluate the project's risks and potential mitigants, LGP will <ul style="list-style-type: none"> <li>• identify, assess, and estimate the impact of risks associated with the project;</li> <li>• determine the types and magnitude of the risks associated with the project;</li> <li>• determine the proper risk allocation among the parties; and</li> <li>• determine the extent to which risks have been mitigated.</li> </ul>
21. Perform a financial model analysis and stress-test.	To evaluate the project's financial model, LGP will <ul style="list-style-type: none"> <li>• verify the applicant's calculations for its financial model, and</li> <li>• quantify the impacts of risks by stress-testing the applicant's and LGP's financial models for changes in assumptions.</li> </ul>

**Appendix III: Key Tasks in the LGP's Review and Approval Process for Loan Guarantee Applications**

<b>Review stage and task</b>	<b>Description</b>
22. Assess strengths and weaknesses of project participants.	LGP will examine the sponsor's investment to date and financial/managerial capability to implement the project as proposed, including <ul style="list-style-type: none"> <li>• the project sponsor's track record in project development and the technology used in the application,</li> <li>• the project sponsor's financial strength and resources,</li> <li>• the strategic value of the project to the sponsor, and</li> <li>• the experience of the project's management team.</li> </ul>
23. Assess whether an environmental assessment, environmental impact statement, or categorical exclusion applies. <i>(For FIPP projects, this assessment step occurs during intake.)</i>	As required by the National Environmental Policy Act of 1970 (NEPA), LGP reviews the project and determines which environmental review process is necessary.
24. Prepare Environmental Assessment, Environmental Impact Statement or Categorical Exclusion.	Based on LGP's analysis under task 23, LGP prepares the appropriate documents, which include a description of any significant findings under other applicable environmental laws.
25. Identify significant findings under other applicable environmental laws.	
26. Receive independent engineering/technical consultant report.	To determine the technical efficacy of the project, LGP or an independent engineering firm, will thoroughly review the applicant's independent engineering report, including consideration of factors such as environmental impact and infrastructure requirements. This review also provides input for the risks and mitigants section of the credit paper.
27. Receive independent legal analysis.	To review the project's legal structure, LGP or an external firm will <ul style="list-style-type: none"> <li>• analyze draft legal agreements among project participants,</li> <li>• analyze intellectual property rights of participants in the project to use the proposed technology, and</li> <li>• provide input for the risks and mitigants section of the credit paper.</li> </ul>
28. Receive independent marketing consultant report (as applicable).	As necessary, LGP will consult with external marketing advisors to assess the project's market and off-take risk as part of the underwriting and credit analysis process. This assessment should be supported by data, examples, and/or research that substantiate the score assigned for each attribute.
29. Negotiate term sheet.	Based on its due diligence analysis and input from any external advisors, LGP prepares a term sheet and negotiates its provisions with the applicant.
30. Calculate expected recovery rate.	LGP calculates the percentage of value the agency can expect to recover in the event of default.
31. Prepare a credit approval package.	LGP assembles key documents describing the proposed loan guarantee agreement and project for internal review. These include <ul style="list-style-type: none"> <li>• the credit paper providing an overview of the project and its attributes,</li> <li>• available third-party input,</li> <li>• draft term sheet,</li> <li>• internal risk rating matrix,</li> <li>• recovery rate notching matrix,</li> <li>• compliance checklist, and</li> <li>• presentation summarizing the transaction for internal and external review.</li> </ul>

Review stage and task	Description
32. Credit committee reviews and approves the credit approval package.	LGP management internal review and approval step.
33. Office of Management and Budget (OMB) reviews LGP's credit subsidy estimate.	OMB reviews LGP's calculation of the estimated credit subsidy cost range for the project and provides informal approval. The credit subsidy cost is based on a formula designed to determine the net present value of the estimated cost to the federal government of guaranteeing the loan.
34. LGP consults with U.S. Treasury regarding the commitment of Federal Financing Bank funds.	The Department of the Treasury reviews the transaction.
35. DOE's CRB approves projects recommended by LGP for conditional commitment.	DOE leadership review and approval step.
<b>Conditional commitment to closing</b>	
36. DOE offers applicant conditional commitment for a loan guarantee and applicant accepts.	DOE conditionally commits to issuing a loan guarantee agreement dependent upon whether the conditions precedent laid out in the term sheet are met. Upon accepting the offer, the applicant pays all or a portion of the second fee, depending on the solicitation.
37. LGP prepares and negotiates definitive financing documentation	LGP and external counsel prepare and negotiate the final financing terms and loan guarantee agreement.
38. LGP receives final credit rating from a rating agency via the applicant.	The applicant obtains and provides final credit rating to LGP.
39. LGP legal team circulates an action memo to all relevant parties for concurrence and the Secretary's signature.	Internal review and approval step that includes a crosswalk between the key terms at the time of conditional commitment and the final closing terms, including any material adverse differences.
40. OMB formally approves the final credit subsidy cost.	OMB review and key decision step.
41. Outside counsel confirms that all conditions precedent to the loan guarantee agreement have been satisfied.	LGP asks outside counsel to verify that the applicant has met all of the terms agreed to at conditional commitment as preconditions for LGP's approval of the final loan guarantee agreement.
42. DOE and applicant execute loan agreement, and DOE issues guarantee.	The final loan guarantee documents are executed at closing and the loan is considered closed once the agreements have been executed.
43. First funds disbursement.	At the time of or shortly after the loan guarantee's closing, the Federal Financing Bank, or other lender, disburses the first payment of funds to the loan guarantee recipient.

Sources: GAO analysis of DOE guidance, published solicitations, and relevant regulations.

<sup>4</sup>According to LGP officials, this step is a component of the innovation and other eligibility reviews rather than a separate step. However, we included it as a separate step in our list of key review tasks since it was an important aspect of the process.

<sup>5</sup>As applicable, for solicitations where LGP established a two part application process for some or all applicants (excludes stand-alone or manufacturing projects that applied under EERE 08).

# Appendix IV: Comments from the Department of Energy

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



## Department of Energy

Washington, DC 20585

FEB 23 2012

Mr. Frank Rusco  
Director, Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street NW  
Washington, D.C. 20548

Dear Mr. Rusco:

Thank you for the opportunity to comment on the Government Accountability Office's (GAO) draft report on the Department of Energy's (DOE or Department) Loan Guarantee Program (LGP), *Further Actions Are Needed to Improve Tracking and Review of Applications*. A draft statement of facts was provided to the Department for review on October 20, 2011, and a draft report was sent on January 19, 2012.

As the GAO's report makes clear, **commercial lenders interviewed by GAO have stated that LGP's underwriting and due diligence standards are as rigorous as, or more rigorous than, those in the private sector.** Specifically, GAO reports that:

- "According to private lenders we contacted who finance energy projects, the LGP's established review process is generally as stringent as or more stringent than those lenders' own due diligence processes."
- "Some lenders that sponsored applications under the FIPP [Financial Institution Partnership Program] solicitation said that the LGP's review process was more rigorous than their own."
- "Some private lenders we spoke with also noted that financing an innovative energy project involves a certain amount of risk that cannot be eliminated."
- "It is noteworthy that the process DOE developed for performing due diligence on loan guarantee applications equals or exceeds those used by private lenders to assess and mitigate project risks."

As the GAO report also noted, as of September 30, 2011, the LGP had made \$16.2 billion in loan guarantees to 28 projects under Section 1705 of the Energy Policy Act of 2005. To put this in context, in the approximately two and one-half years since the Section 1705 program was authorized by Congress, **the Department managed to build and continuously improve an organization that has succeeded in making an unprecedented level of clean energy investments while maintaining standards that are as high or higher than major financial institutions in the United States.**

The LGP's portfolio includes a broad range of clean energy technologies under Title XVII, including two biomass projects, three geothermal power projects, 12 solar power generation projects, four solar manufacturing projects, three transmission/storage projects and four wind power generation projects.

The LGP has been recognized as an industry leader in the clean energy financing sector. In the recently published Bloomberg New Energy Finance Clean Energy and Energy Smart Technology League Tables, six of the "Asset Finance - Top 16 Deals" were LGP transactions, and LGP's loan guarantee support resulted in the Federal Financing Bank being ranked #1 in the

"Asset Finance – Lead Arrangers" category. The #1 ranking reflects more than \$10 billion in deal credit across 13 transactions.

While the GAO focused on recordkeeping within the loan program, the report should not be read as a comprehensive evaluation of the LGP. The GAO report acknowledged: "We did not evaluate the quality of the LGP's analyses supporting the completion of these [review] steps." As a result, the GAO's findings do not purport to assess the credit risks from the substantive quality of the LGP's underwriting of any transactions. DOE hopes that the GAO report makes clear to readers that the scope of GAO's review did not include an analysis of the merits and creditworthiness of any DOE loan guarantees. As an independent review by outside experts of the overall health of the loan program's portfolio recently concluded, the LGP's portfolio holds significantly less risk than that anticipated by Congress in funding the programs.


With respect to the GAO's findings on the LGP's recordkeeping, we note the following:

- Most, if not all, of GAO's findings relate to procedures that the LGP had in place in 2009 and early 2010, rather than those in place during 2011 or 2012. The GAO acknowledged that its review only covered six applications (and it collected more limited information for seven projects) that had received conditional commitments or had closed by December 31, 2010, and five of those applications had previously been the subject of a GAO report from July 2010.
- The GAO did not review any of the 23 projects that received conditional commitments in 2011, nor does it account for any of the organizational, procedural, transactional, and system improvements the LGP has implemented during this period. The LGP continuously updates its processes, practices, and procedures to adapt to applicable market conditions and prudent industry standards.
- Currently the LGP has a robust records management platform, and is in the process of deploying a consolidated state-of-the-art business management system. In addition, the LGP has designed, tested, and deployed a state-of-the-art electronic portfolio management system.

Enclosed please find the Department's response to GAO's recommendations and separate technical and factual comments on specific items in the draft report. While some of GAO's observations may have been valid in 2009 and early 2010, the LGP has since instituted many processes and systems not mentioned in the report that have addressed these concerns. It is therefore inappropriate to suggest that LGP oversight has in any way been ineffective without first considering the extent and value of these established and on-going process and system improvements.

The LGP remains committed to promoting the objectives of the Title XVII program and will continue to accelerate the commercial use of innovative technologies, contribute to economic growth, and promote projects that yield long term environmental benefits, at the same time maintaining program objectivity and protecting the interests of the American taxpayer.

Sincerely,



David G. Frantz  
Acting Executive Director  
Loan Programs Office

Enclosures

See comment 1.

See comment 2.

See comment 3.



Appendix A

U.S. Department of Energy  
GAO -12-157 – “Further Actions Are Needed to Improve Tracking and Review of Applications”

Response to the GAO Recommendations

**GAO Recommendation:** Commit to a timetable to fully implement a consolidated system that enables the tracking of the status of applications and that measures overall program performance.

**DOE Response:** The LGP believes that it is important that the GAO report distinguish between “project tracking” and “records management.” LGP has placed a high priority on records management and is currently implementing a consolidated state-of-the-art records management system. This system should be distinguished from the GAO’s concept of a consolidated “project tracking” database across all LGP solicitations.

Each LGP solicitation is designed to provide unique application and project evaluation criteria. The manufacturing or generation projects proposed under the various LGP solicitations cover a wide range of nuclear energy, fossil fuels, renewable energy, and transmission technologies. The Department utilizes a broad array of resources and expertise – scientific, engineering, financial, environmental and legal – to analyze these highly differentiated projects and technologies. To track projects, the Loan Guarantee Origination Division (Origination) intake team maintains separate spreadsheets for each solicitation containing core project information and the status of each application under consideration. Origination meets weekly to provide updates and discuss developments on due diligence activities, which are then recorded in various DOE internal reports. While the GAO report suggests that the LGP create a comprehensive “project tracking” database across all solicitations, such a consolidated tracker is impractical for the highly varied and specialized processes of the LGP.

To achieve its objectives, the LGP is organizing the voluminous records for each project in its records management system to distinguish the evaluation bases employed for various technologies and is employing a continuous improvement management approach in its robust records management and comprehensive project tracking to ensure that LGP staff can readily access the historical and current information they need on a day-to-day basis and over time.

In addition to continuously refining and enhancing its existing records management platform, the LGP is in the process of deploying a consolidated state-of-the-art business management system, and has designed, tested, and deployed a state-of-the-art electronic portfolio management system.

**GAO Recommendation:** Ensure that the new records management system contains documents supporting past decisions as well as those in the future.

**DOE Response:** The LGP has designed, developed, and deployed a portfolio management system which will interface with the records management platform and maintain on-going reports on all conditionally committed and closed projects. This integration will ensure that historical records are organized and maintained appropriately and on-going project status reports are retained and updated.

See comment 4.

*GAO Recommendation:* Regularly update the LGP's credit policies and procedures manual to reflect current program practices to help ensure consistent treatment for applications to the program.

*DOE Response:* The LGP last updated its credit policies and procedures manual on October 6, 2011, and appreciates that GAO noted in its report that the updated manual addressed many of the differences GAO identified between the LGP's established and actual review processes. The LGP is committed to further updating its credit policies and procedures manual as appropriate.

The following are GAO's comments on the Department of Energy's letter dated February 23, 2012.

## GAO Comments

1. We disagree with DOE's assertion that our findings relate only to procedures that LGP had in place in 2009 and early 2010. We compared LGP's actual process to its established process for each of the applications that reached closing or conditional commitment by December 31, 2010. As we note in the report, LGP did not revise its policies and procedures manual until October 2011, so the same established procedures were in place for all of the applications that closed by September 30, 2011. We did not review any of the applications that were committed or closed during 2011 in depth, in part because it took through November 2011 for LGP to respond to our repeated requests for available documentation for the applications closed or committed to through 2010. Our 2010 report on LGP (GAO-10-627) and this report had information on five of the same applications. We examined DOE's review process for these applications in much more depth for this report than in the previous one. We did take into account changes in LGP procedures, systems, and other improvements as part of our review, as noted by the references to LGP's new records management system and its updated policies and procedures manual. We also took into account changes in LGP policies and procedures that affected the 13 files that we reviewed, when LGP was able to document that these changes had occurred.
2. As noted in the report, these systems were not fully implemented at the time we were gathering data for our review and this is still the case, according to DOE's written comments, dated February 23, 2012.
3. As stated above, we disagree with LGP's statement that our findings relate only to procedures that LGP had in place in 2009 and early 2010. As we note in the report, LGP did not revise its policies and procedures manual until October 2011, so the same established procedures were in place for all of the applications that closed by September 30, 2011. The report describes LGP's efforts to update its documentation management and tracking systems and notes that none of these were fully implemented at the time of our review.
4. DOE disagrees with the recommendation to implement an application tracking system. However, as noted in our report and DOE's comments, LGP is in the process of implementing a consolidated

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state of the art business management system that DOE believes may address this need. As we stated in the draft report, under federal internal control standards, federal agencies are to employ control activities, such as accurately and promptly recording transactions and events to maintain their relevance and value to management on controlling operations and making decisions. Because LGP had to manually assemble the application status information we needed for this review, and because this process took the program over three months to accomplish, we continue to believe DOE should develop a consolidated system that enables the tracking of the status of applications and that measures overall program performance. This type of information will help LGP better manage the program and respond to requests for information from Congress, auditors, or other interested parties.

# Appendix V: GAO Contact and Staff Acknowledgments

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## GAO Contact

Frank Rusco (202) 512-3841 or [ruscof@gao.gov](mailto:ruscof@gao.gov)

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## Staff Acknowledgments

In addition to the individual named above, Karla Springer, Assistant Director; Marcia Carlsen; Cindy Gilbert; Cathy Hurley; Emily Owens; John Scott; Ben Shouse; Carol Shulman; Barbara Timmerman; and Lisa Van Arsdale made key contributions to this report.

# Related GAO Products

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*Recovery Act: Status of Department of Energy's Obligations and Spending.* [GAO-11-483T](#). Washington, D.C.: March 17, 2011.

*Department Of Energy: Further Actions Are Needed to Improve DOE's Ability to Evaluate and Implement the Loan Guarantee Program.* [GAO-10-627](#). July 12, 2010.

*Recovery Act: Factors Affecting the Department of Energy's Program Implementation.* [GAO-10-497T](#). March 4, 2010.

*American Recovery and Reinvestment Act: GAO's Role in Helping to Ensure Accountability and Transparency for Science Funding.* [GAO-09-515T](#). March 19, 2009.

*Department Of Energy: New Loan Guarantee Program Should Complete Activities Necessary For Effective and Accountable Program Management.* [GAO-08-750](#). July 7, 2008.

*Department Of Energy: Observations On Actions To Implement The New Loan Guarantee Program For Innovative Technologies.* [GAO-07-798T](#). September 24, 2007.

*The Department of Energy: Key Steps Needed to Help Ensure the Success of the New Loan Guarantee Program for Innovative Technologies by Better Managing Its Financial Risk.* [GAO-07-339R](#). February 28, 2007.

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Washington, DC 20548



# **Toxicology of Gasoline**



⌘ William C. Herz

⌘ George Washington University School of Public Health

⌘ PubH 243

⌘ April 18, 2000



# Introduction

- ⌘ The toxicology of gasoline really is the study of a complex mixture of different chemicals.
- ⌘ The overall assessment is also complicated by the fact that there are thousands of different gasoline formulations in use.
- ⌘ Historical formulations are worth consideration because of their high levels of lead and benzene. Significant environmental lead contamination remains in soils and sediment.
- ⌘ Diesel emissions are primarily differentiated from gasoline by the greater amounts of harmful particulates released in the respirable range.

# Gasoline, defined

- ⌘ Gasoline is the generic term for petroleum fuel used mainly for internal combustion engines.
- ⌘ This complex, volatile, and inflammable mix may contain over 500 saturated or unsaturated hydrocarbons having from 3 to 12 carbons.
- ⌘ A common gasoline formulation contains approximately 62% alkanes, 7% alkenes, and 31% aromatics, as well as alcohols, ethers, and additives (Caprino, 1998).

# Components of Concern

- ⌘ Benzene; older formulations could have had 5% or greater, current formulations required to be 1% or less.
- ⌘ Oxygenates; added as a requirement of the Clean Air Act, such as methyl tert butyl ether (MTBE), ethyl tert butyl ether (ETBE), tert amyl methyl ether (TAME), and ethanol;
- ⌘ Manganese based compounds (based on neurotoxicity);
- ⌘ Lead, mainly remaining as deposited in soil and sediment.

# Gasoline's Physical Properties

- ⌘ **Description**

Colorless, mobile liquid with characteristic odor. Mixture of C4 to C12 hydrocarbons. The major components are branched chain paraffins, cycloparaffins, and aromatics. Highly flammable; dangerous fire and explosion risk.
- ⌘ **Specific Gravity**

0.72 to 0.76 at 60/60° F
- ⌘ **Boiling Point**


Initial BP 39° C, after 10% distilled, BP 60° C, after 50% distilled BP 110° C, after 90% distilled BP 170° C, final BP 204° C.
- ⌘ **Solubility**

Insoluble in water (apart from the oxygenate components); freely soluble in alcohol, ether, chloroform, and benzene.
- ⌘ **Flash Point**

About (-45° C)
- ⌘ **IMIS**

1340

# Exposure Pathways to Consider

- ⌘ Inhalation, 
  - Direct inhalation of gasoline during occupational or direct use, such as customer refueling and home use.
  - Secondary exposure through dispersal of combustion byproducts into air and soil.
- ⌘ Ingestion, and
- ⌘ Dermal exposure.

# Exposure Pathways to Consider

⌘ **Ingestion;** usually accidental, causes inebriation, vomiting, vertigo, fever, drowsiness, confusion, and cyanosis. Aspiration of gasoline causes bronchitis of pneumonia.

⌘ **Dermal exposure;** Exposure to the skin can cause slight burning, itching sensations and increased desquamation. Prolonged dermal exposure can cause systemic problems as well.

# Health Effects



- ⌘ The range of health effects attributable to gasoline exposure are quite broad, and include both cancer and non-cancer health effects.
- ⌘ Renal and hepatic tumors,
- ⌘ Acute lung disorders, and
- ⌘ Other types of cancer.
- ⌘ Benzene is a well established leukemogen.
- ⌘ Non-cancer health effects also may occur such as mucous membrane irritation and dizziness.

## High level exposures

- ⌘ Extremely high level exposures to gasoline vapor may result in dizziness, coma, collapse, and death.
- ⌘ Exposure to high nonlethal levels is usually followed by complete recovery, although cases of permanent brain damage following massive exposure have been reported (Klaxon, et al., 1996).
- ⌘ Atmospheric concentrations of approximately 2000 ppm are not safe to enter even for brief periods of time.



# Tailpipe emissions



- ⌘ Important due to the high level of population exposure.
- ⌘ Tailpipe emissions represent the difference between formation of pollutants in the engine combustion process and destruction (through oxidation or reduction) of these pollutants in the exhaust system.
- ⌘ Catalytic converter is extremely important for destruction, yet effectiveness may vary based on multiple factors, including vehicle type and age, condition, gasoline formulation used, etc. (NRC, 1996).

## Animal Studies and Lung Cancer

- ⌘ Most animal studies show no or minimal increases in lung cancer with exposure to engine exhaust emissions resulting from regular or unleaded gasoline.
- ⌘ In 1986, Heinrich reported exposing 80 female Wistar rats and 80 Syrian hamsters for 19 hours/day, 5 days a week for up to 24 months to exhaust from a 1.6L engine burning leaded fuel and operated on an urban cycle to produce chamber concentrations of 112 ppm CO or 207 ppm CO.
- ⌘ No increases in lung tumor incidence was observed.

## **Animal Studies and Lung Cancer, cont.**

- ⌘ Roggendorf (1981) performed a similar study using 100 Wistar rats of both sexes for up to 28 months and reported inflammation, pneumonia, and emphysema of the lungs;
- ⌘ Suggested a greater propensity for infections;
- ⌘ however, no increase in lung cancer was found.
- ⌘ The authors did not measure whether this phenomenon was due to an immunosuppressive effect of the exposure.


## **Diesel studies differ in regard to lung cancer**

- ⌘ Diesel gasoline exposure experiments have produced ample evidence of pulmonary carcinogenicity.
- ⌘ Studies have examined the difference between filtered and unfiltered diesel exhaust and found that the carcinogenicity of diesel is dependent on the presence of the particulate matter (Heinrich, et al. 1986).
- ⌘ In most studies of exposure to diesel exhaust, the range of particulates in unfiltered exhaust is usually between 3.5 and 4.2 mg particulates/m<sup>3</sup>.

## **Diesel, cont.**

- ⌘ Studies of miners indicated a higher propensity of lung cancer which was associated with diesel emissions within the closed space of a mine.
- ⌘ Concern for diesel carcinogenesis arose partly from the observation of adsorption of mutagenic and carcinogenic compounds to diesel soot (Mauderly, 1994).
- ⌘ However, the particulates themselves are highly correlated with toxicity;

## **Diesel, cont.**



- ⌘ Particle size seems to be strongly correlated with the adverse health effects, with PM 2.5 representing a significant cutoff.
- ⌘ Some authors have suggested that inhalation of diesel exhaust might act as a co-carcinogen by increasing the lung tumor response of rats to chemical carcinogens.

## **Applicability of Diesel Findings to Human health Risk Assessment**

- ⌘ The applicability of these findings to human risk assessment is still in question, depending on whether a genotoxic or non-genotoxic mechanism is found.
- ⌘ The particulates from diesel exhaust has been shown to cause chronic inflammation, alveolar epithelial hyperplasia, and multifocal fibrosis (non-genotoxic mechanism).
- ⌘ Not all species exhibited lung tumors when exposed to diesel exhaust. In five different studies Syrian hamsters failed to exhibit any lung tumors after exposure periods up to 24 months.

## Epidemiological Evidence

- ⌘ Boffetta et al. (1988) reported the results of the first two years of follow-up in the prospective mortality study of U.S. males conducted by the American Cancer Society.
- ⌘ Occupation, diesel exhaust exposure, and smoking history were obtained interviewing living subjects during enrollment.
- ⌘ They calculated a relative risk for lung cancer among diesel exhaust exposed subjects:
  - ⌘ 1.6 for railroad workers,
  - ⌘ 2.6 for heavy equipment operators, and
  - ⌘ 2.7 for miners who worked in mines where diesel equipment was operated.



## Epidemiological Evidence, cont.

- ⌘ Mauderly (1994) summarized the results of fourteen case-control studies conducted between 1976 and 1990, with study periods ranging from 1 to 10 years, and between 376 and 6434 cases in each study.
- ⌘ Notably, all but two of these studies controlled for smoking and tobacco exposure. The relative risk ranges were from less than 1 to 2.4, and 12 of these studies reported a RR of 1.2 or greater.
- ⌘ As elevations of risk in the range of 20 to 50% (RR of 1.2 to 1.5) are at the approximate lower limit of practical detection in epidemiology, it may be that the true human lung cancer risk from diesel exhaust will never be resolved conclusively.

# Environmental Concerns

- ⌘ MTBE contamination of groundwater, surface water, and direct Public Water Systems (PWS);
- ⌘ Historic deposition of lead into soils, especially in inner cities; which is highly correlated with blood lead levels;
- ⌘ All refineries, refueling sites (terminals and marine terminals) are 'dirty' to some degree;
- ⌘ Measured in industrial settings by sum of 'total petroleum hydrocarbons' either with or without diesel (TPH, TPH-D);
- ⌘ Good news is bioremediations for hydrocarbons becoming more and more effective.

# Conclusion

- ⌘ In regard to the overall carcinogenicity of gasoline, risks cannot yet be identified with precision.
- ⌘ Reasons include the diverse and different constituents of gasoline (leaded, unleaded, oxygenated, reformulated gasolines).
- ⌘ Conflicting evidence in animal studies and lack of human studies (apart from occupational exposure to diesel gasoline), and
- ⌘ Inadequate information on population exposures (Caprino, et al. 1998).

# Conclusion



- ☒ In summary, the potential for exposure exists during gasoline use in commerce in both occupational and everyday settings.
- ☒ Exposure to combustion byproducts excreted as air pollutants is also a daily occurrence for a majority of the population.

## Research Needs

- ❏ Drawbacks associated with our understanding relate to the fact that gasoline is a complex mixture of potentially harmful constituents.
- ❏ Interactions among components within gasoline, as well as other air and chemical exposures, are not well understood.
- ❏ Additional research may allow refinement in formulation, manufacturing, and distribution methods, raising hope for further reduction in risk to human health.

## Research Needs

- ❑ Modern unleaded gasoline presents less risk to human health due to the lower quantities of benzene and lead (Caprino, et al. 1998).
- ❑ The use of oxygenates has lowered harmful air emissions, however, it has raised emissions of other chemicals as well as polluting groundwater, surface water, and public water supplies.
- ❑ Additional study is required to determine specific oxygenates with lowest potential for harm (while still retaining beneficial properties).



## Gingrich says Obama should fire energy secretary for remark about gas prices

By Justin Siek - 03/01/12 01:02 PM ET

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Republican candidate Newt Gingrich said President Obama should fire Energy Secretary Steven Chu following his remark this week that reducing gas prices is not the "overall goal" of his agency.

Gingrich said President Obama's continued support for Chu signals a commitment to "his radical ideology, which wants to artificially raise the cost of energy."

"Just this week, Obama's own Energy secretary, Steven Chu, admitted what we all know is true — that the Obama Energy Department really isn't trying to lower gasoline prices," Gingrich said while campaigning Thursday in Georgia.



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"President Obama must announce today in his Nashua address that he is firing Secretary Chu and replacing him with a pro-American-energy appointment. If he doesn't, then the American people will know the president is still committed to his radical ideology, which wants to artificially raise the cost of energy."

Testifying before a House Appropriations subcommittee earlier this week, Chu said he agreed that "there is great suffering when the price of gasoline increases," and said the Department of Energy (DOE) is "very concerned" about it.



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Startup plug-in vehicle maker Bright Automotive announced today that it is closing down.

While General Motors had invested \$5 million in the company, Bright had relied on the hope that the U.S. Department of Energy would grant it low-interest loans under the advanced-technology vehicle manufacturing program.

A letter from its CEO and COO to Energy Secretary [Steven Chu](#) notes that the Indiana company has waited more than three years for a DoE verdict on applications it submitted in December 2008.

#### **'Unacceptable to us and our investors'**

"Last week, we received the fourth 'near final' Conditional Commitment Letter since September 2010," Bright CEO Ruben Munger and COO Mike Donoughe wrote in the letter, which withdraws its loan application.

"Each new letter arrived with more onerous terms than the last."

"The first three were workable for us," wrote Munger and Donoughe, "but the last was so outlandish that the most rational and objective persons would likely conclude that your team was negotiating in bad faith."

The two had written a week earlier to Secretary Chu that the DoE's latest terms were "unacceptable to us and our potential investors."



But Bright's required match on a \$314 million loan application grew from \$120 million in late 2010 to \$240 million last year, which the company reluctantly agreed to.

But then in the final round this year, it grew again, to \$345 million--or more than the total loan Bright had requested.

Perhaps most onerous of all, the DoE newly insisted that every penny of privately invested capital be spent first, before Bright could draw down any of its DoE funding.

There were also fine-grained milestones to be met in design, engineering, even marketing, that would be reviewed quarterly.

### **False words, false hope?**

In the end, Bright never managed to put more than a few prototype vans on the road.

And 1,175 days after its first application, the company could wait no longer.

Bright's executives minced few words in laying out the impact of the DoE's lengthy decision-making process. Their letter says,

The ineffectiveness of the DOE to execute its program harms commercial enterprise as it not only interfered with the capital markets; it placed American companies at the whim of approval by a group of

been accused of incompetence, carelessness, recklessness, and irony. Now it can add inconsistency to those distinguishing characteristics.



Last week Bright Automotive, an [electric vehicle](http://nlpc.org/category/keywords/electric-vehicles) (<http://nlpc.org/category/keywords/electric-vehicles>) start-up company that [General Motors](http://nlpc.org/category/keywords/general-motors) (<http://nlpc.org/category/keywords/general-motors>) helped two years ago with an investment (<http://wheels.blogs.nytimes.com/2010/08/04/g-m-invests-in-plug-in-hybrid-startup/>) of at least \$5 million from its venture capital arm, gave up hope on winning a \$450 million loan from DOE's Advanced Technology Vehicle Manufacturing program. As the company announced the withdrawal of its loan application and that it would end operations, CEO Reuben Munger and COO Mike Donoughe sent (and released to the media) a [letter](http://download.gannett.edgessuite.net/detroit/2012/pdf/0228brightauto.pdf) (<http://download.gannett.edgessuite.net/detroit/2012/pdf/0228brightauto.pdf>) to DOE secretary [Steven Chu](http://nlpc.org/category/people/seven-chu) (<http://nlpc.org/category/people/seven-chu>) that sharply criticized the loan programs processes and outlined their frustrations.

"Bright has not been explicitly rejected by the DOE," the Bright executives wrote, "rather, we have been forced to say 'uncle....'"

"Last week we received the fourth 'near final' Conditional Commitment letter since September 2010. Each new letter arrived with more onerous terms than the last. The first three were workable for us, but the last was so outlandish that most rational and objective persons would likely conclude that your team was negotiating in bad faith. We hope that as their secretary, this was not at your urging."

The shutdown is the latest in what is becoming a long line of green energy government "investment" failures in [Indiana](http://nlpc.org/category/keywords/indiana) (<http://nlpc.org/category/keywords/indiana>). In January EV battery maker [Ener1](http://nlpc.org/category/keywords/ener1) (<http://nlpc.org/category/keywords/ener1>), which had received \$118.5 million in grants from DOE and \$7.15 million in incentives from the Hoosier State (<http://content.usatoday.com/communities/theoval/post/2012/01/obama-critic-backed-bankrupt-clean-energy-firm/1>),



A worker installs First Solar Inc. photovoltaic solar panels at the Agua Caliente Solar Project in Yuma County, Arizona, U.S., Feb. 18, 2012. (Joshua Lott/Bloomberg/Getty Images)



By MATTHEW MOSK (@matmosk)

March 19, 2012

House Republicans are preparing to grill [Energy Secretary Steven Chu](#) this week over \$1.6 billion in loans to finance two massive [solar energy](#) projects planned for the desert Southwest, saying investigators have found evidence suggesting the administration cut corners in order to get the loans approved.

"The Department of Energy manipulated analysis, ignored objections from career professionals, and strategically modified loan evaluations in order to force project funding out the door," House Oversight and Government Reform Committee Chairman Darrell Issa, R-California, said in a statement provided to ABC News.

The Department of Energy says Chu will have plenty of material with him to rebut those allegations Tuesday when he comes to the Hill to testify before Issa's committee. Agency officials continued to characterize criticism from House Republicans as misleading attacks that are aimed at scoring political points.

Energy Department spokesman Damien LaVera accused the committee of "inventing false and misleading controversy."

"Decisions made on loan applications were made on the merits after extensive review by the experts in the loan program," LaVera said. "In this case, the Department backed loans for two innovative solar projects

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Carbon Motors originally applied for the loan in early 2010.

updated 3/8/2012 12:29:47 PM

## Government 'Still Supports' Carbon Motors Loan

Andy Ober, *InsideIndianaBusiness.com* Report

United States Energy Secretary Steven Chu says his department still wants to move forward on a \$335 million federal loan to Carbon Motors Corp. in Connersville, but only if a reasonable chance of repayment is written into the contract. Our partners at Network Indiana/WIBC report Connersville Mayor Leonard Urban says without the loan, the plan to build fuel-efficient police cruisers and the creation of 1,500 jobs are in doubt.



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Urban is trying to set up a face-to-face meeting with Chu. He says the city needs a definite answer on the loan. The company originally applied for the funding in early 2010.

The police car manufacturer announced in July 2009 plans to locate its headquarters and production facility in the former Visteon building. The company stated the deal could lead to the creation of more than 1,500 jobs.

Eleven Congressmen have joined Urban in asking the federal government to speed up the lengthy approval process.

Source: Network Indiana/WIBC



## DOE not proceeding with ATVM loan for Carbon Motors; company exploring strategic and financing alternatives

7 March 2012

Carbon Motors Corporation, developer of a diesel-engined law enforcement vehicle (earlier post), announced that the US Department of Energy (DOE) has indicated that it will not proceed with Carbon's \$310 million application for a direct loan under the Advanced Technology Vehicle Manufacturing (ATVM) program.

The Advanced Technology Vehicles Manufacturing Loan Program, first appropriated in the fall of 2008, was to provide about \$25 billion in loans to companies making cars and components in US factories that increase fuel economy at least 25% above 2005 fuel economy levels.

Carbon Motors's E7—which mates an advanced diesel with an 8-speed transmission—was designed to meet all Federal Motor Vehicle Safety Standards with all law enforcement equipment installed, would increase fuel efficiency by up to 40% over the vehicles used today and would satisfy substantially all requirements of the law enforcement mission, said William Santana Li, chairman and chief executive officer, Carbon Motors Corporation.

The ATVM loan, together with the equity and other funding dedicated to the project was to be used to complete the development work on the vehicle in the US, as well as the tooling and facility costs necessary to produce the E7. The company says it is now actively examining its strategic and financing alternatives in support of its goal.

CEO Li lashed out at the DOE in a released statement.

*We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly-charged, election year environment. Since Solyndra became politicized last fall, the DOE has failed to make any other loans under the ATVM program, has pulled back one loan that it previously committed and, as of this month, the DOE has pushed aside the three remaining viable loans under active consideration.*

*Each of these applicants has been caught for several years in a costly and extensive DOE due diligence process. Carbon Motors simply appears to be the last victim of this political gamesmanship.*

—William Li

The company noted that the ATVM legislation passed by Congress and the Bush Administration included a loan loss assumption of 30% on the entire portfolio, which is reflective of the fact that there is always some inherent risk in funding a business of any size and new jobs will not be created in a risk-free environment—that is the essence of "Advanced Technology" reflected in the name of the program.

Chrysler Group LLC ~~withdrew~~ its application for an Advanced Technology Vehicles Manufacturing loan from the Department of Energy. The company says it remains confident in its strategy to bring competitive, fuel-efficient vehicles and technologies to market on schedule, and that the withdrawal will not impact Chrysler's ability to achieve its previously announced business plan targets.

US Representative John D. Dingell (D-MI15) issued a statement expressing disappointment that Chrysler and the Department of Energy (DOE) could not reach an agreement on funding and duration of loan terms for Chrysler's Section 136 application.

*Chrysler had a great year in 2011 and posted a 44 percent increase in sales for January 2012 alone. The company is in much better financial health than it was in 2009 and to me appears to be a perfect candidate for a 136 loan from the DOE. Although Chrysler has withdrawn its loan application, DOE must start acting decisively so we can fulfill the President's goal of out-competing the rest of the world.*

—Rep. Dingell

Chrysler made its first request for \$8.55 billion in an ATVM loan as a unit of Cerberus Capital Management LP in 2008. Since then, [reported](#) the Detroit News, the amount of the possible loan continued to shrink, while the terms and restrictions grew more restrictive and for a much shorter time period.

Since it was formed in June 2009, Chrysler Group LLC has announced investments of more than \$4.5 billion; added more than 9,400 jobs; repaid US Treasury and Canadian government loans in full, with interest, six years early; launched 16 new or significantly refreshed vehicles in its first 19 months; launched production of the all-new C-segment Dodge Dart, which is being built in the US using a Fiat-based architecture and fuel-efficient technology; and in 2011, Chrysler Group US sales increased 26 percent, the largest percentage sales gain of any full-line manufacturer.

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**AT THE FIRST SESSION**

*Began and held at the City of Washington on Tuesday,  
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**An Act**

Making appropriations for energy and water development and related agencies for the fiscal year ending September 30, 2010, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the following sums are appropriated, out of any money in the Treasury not otherwise appropriated, for energy and water development and related agencies for the fiscal year ending September 30, 2010, and for other purposes, namely:

**TITLE I**

**CORPS OF ENGINEERS—CIVIL**

**DEPARTMENT OF THE ARMY**

**CORPS OF ENGINEERS—CIVIL**

The following appropriations shall be expended under the direction of the Secretary of the Army and the supervision of the Chief of Engineers for authorized civil functions of the Department of the Army pertaining to rivers and harbors, flood and storm damage reduction, shore protection, aquatic ecosystem restoration, and related efforts.

**INVESTIGATIONS**

For expenses necessary where authorized by law for the collection and study of basic information pertaining to river and harbor, flood and storm damage reduction, shore protection, aquatic ecosystem restoration, and related needs; for surveys and detailed studies, and plans and specifications of proposed river and harbor, flood and storm damage reduction, shore protection, and aquatic ecosystem restoration projects and related efforts prior to construction; for restudy of authorized projects; and for miscellaneous investigations and, when authorized by law, surveys and detailed studies, and plans and specifications of projects prior to construction,

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It's going to take a lot more than an endorsement from Leo to get Fisker out of its rut.

**FORTUNE** -- The Fisker Karma is rolling onto the world automotive stage as car writers in the U.S. and Europe examine the car in person for the first time and take their initial laps behind the wheel. They could certainly be excused for seeing the car and its creator through rose-colored glasses. Both have been the recipient of more advance publicity than a Donald Trump presidential endorsement.

Henrik Fisker is the celebrity car designer who wants to do well by doing good. His creation, the Karma, a \$103,000 plug-in hybrid, has been collecting "Car of the Year" awards by the trunkload. As the first four-door



the extroverted Karma is unabashedly aimed at one-percenters. Its lines are voluptuous and proportions unique. Fisker says the design was inspired by "the elegant lines of windswept sand dunes and the muscular grace of a cheetah." He showed his green side by fitting out the interior in politically correct materials: The seating foam is made from soy-based bio fiber, the carpet backing composed of recycled post-consumer materials, and the trim sourced from "fallen, sunken and rescued wood," including some that has spent the last 300 years resting at the bottom of Lake Michigan.

Inspired design is no substitute for manufacturing experience, however, and Fisker has encountered the usual problems that come from starting up an enterprise as complex as a car manufacturer: production delays, price hikes, and canceled orders. In December, Fisker recalled all 239 cars built between July 1 and November because of a possible problem with the battery's cooling system. Early in February, it suspended production and laid off 26 workers while it renegotiated terms of its \$529 million loan from the Department of Energy. Some have begun to compare Fisker to Solyndra, the failed solar panel maker funded by the government to create green jobs.

## 12 electric cars for 2012

When experts look beyond the Karma's drop-dead styling and scrutinize the car's functionality, they find it wanting. After complaining about "errant rattles here and there," an admittedly portly reviewer from *Road & Track* described climbing into the driver's seat as something of a "circus act" and declined to even make a try at getting into the rear seats.

More substantive complaints focus on the car's heft and fuel consumption. The Karma is only five inches shorter than a Ford Flex people-mover and only a few hundred pounds lighter than a Chevy Suburban -- not exactly the dimensions you look for in a sport sedan. The turning radius only looks impressive compared to a Kenworth hauling logs. Engineers at Consumer Reports figured that Fisker's claims for a 50-mile all-electric range are probably optimistic (the EPA rates the Karma at 32 miles). They also discovered that its acceleration "lacks the urgency you'd expect from a car

OP/ED | 3/29/2012 @ 12:38PM | 313 views

# House Oversight Committee Reports \$14.5B DOE Green Loan Program Train Wreck

By Larry Bell

Nobel Laureate Energy Secretary Steven Chu is bringing home a very bad report card. It's a whole lot worse than he expected. When asked by Chairman Darrell Issa at a March 21 House Oversight and Government Reform Committee if he would give himself an "A minus" on "controlling the cost of gasoline at the pump", he responded: "The tools we have at our disposal are limited, but I would I say I would give myself a little higher in that. Since I became Secretary of Energy, I've been doing everything I can to get long-term solutions."

Judging from a March 20 committee staff report, Secretary Chu's self-assessment would seem a bit too lenient. Titled "The Department of Energy's Disastrous Management of Loan Guarantee Programs", it details many reasons for lowering that grade by several letters. The document cites "numerous examples of dysfunction, negligence and mismanagement by DOE officials, raising troubling questions about the leadership at DOE and how it has administered its loan guarantee programs."

By the conclusion of DOE's 1705 program in September 2011, 27 project loans totaling more than \$14.5 billion had been approved. A large number of these (including Solyndra) "exposed taxpayers to excessive risk" that were glaringly apparent, yet ignored, from the time of the program's inception. In doing so, DOE violated responsible lending standards and eligibility requirements. It also amassed a highly speculative and undiversified loan portfolio that may ultimately result in substantial taxpayer losses.

# House panel seeks answers on Energy Dept. loan to Fisker

BY DAVID SHEPARDSON DETROIT NEWS WASHINGTON BUREAU COMMENTS

Washington — The House Oversight and Government Reform Committee wants to know if the Energy Department will agree to help struggling startup automaker Fisker Automotive Inc. by allowing other investors to recoup funds if the company goes bankrupt.

The California startup won \$529 million in low-cost Energy Department loans and has drawn \$193 million, mostly for use in developing the Fisker Karma that was designed and engineered in the United States but assembled in Finland.

In a letter to Energy Secretary Steven Chu, House Oversight chairman Darrell Issa, R-Calif., said that the government "allowed Fisker to find additional private investors after failing to adhere to financial covenants. However the details of how these private investments affected underlying terms to the original DOE loan are unclear."

The Energy Department froze the rest of the loan last year amid talks about the company's business plan. Last week, it told investors it was pushing back production of its Atlantic by at least two years. Fisker spokesman Roger Ormisher said the company's policy is to "under promise" and "over deliver."

The committee wants all emails between Energy Department, Treasury and White House relating to the tax implications of the Fisker loans.

"From Day 1, decisions made on loan applications and projects supported by loan guarantees were made on the merits after careful review by experts in the loan program. Our consistent goal has been to manage these critical investments in innovative clean energy technologies in a way that manages the risk to the taxpayers," Energy spokesman Damien LaVera said

Officials emphasized there has been no restructuring of Fisker's loan with the Department. All of the borrowers in their portfolio have the option to raise private equity. Fisker's efforts in this regard have no impact on the government's standing as creditors

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chairs the House Science Committee's panel on energy and environment, wants information about the Obama administration's proposal to boost electric vehicle spending by more than \$1 billion through a National Community Deployment Challenge.

The letter criticized the Obama administration's proposal to boost the electric vehicle tax credit to \$10,000 — up from \$7,500 — noting that General Motors Co. has said the average income of a Chevrolet Volt owner is \$170,000.

"Weak demand and reliability problems have plagued their introduction," Harris said, noting that GM has suspended production of the Volt for five weeks and that the Fisker Karma purchased by Consumer Reports was deemed undriveable after a few days.

The Energy Department didn't respond to Harris' criticism directly.

"As part of President Obama's sustained and comprehensive approach to lowering energy costs for American consumers, the Obama Administration is pursuing an all-of-the-above energy strategy," said Energy Department spokeswoman Jen Stutsman. "This includes expanding domestic oil and gas production, improving the fuel efficiency of our vehicles, developing next generation biofuels, and investing in cutting-edge electric vehicle technologies that will insulate American drivers from high prices at the pump over the long-term.

The letter also notes that Ecotality, the recipient of a \$114.8 million Energy Department grant, is being investigated by the Securities and Exchange Commission for insider trading. The letter said that Ecotality had installed just half the charging stations it was supposed to.

Then-candidate Obama in 2008 pledged in a campaign document to "get 1 million plug-in hybrid [cars](#) on the road by 2015."

Harris wants to know "what is the status of and outlook for President Obama's goal of putting 1 million EVs on the road by 2015." He also asks when EVs will be cost-competitive without government subsidies, and how many government-paid charging stations have been installed. He also asks how much the Obama administration has spent on electric vehicle tax credits.

The letter says the Obama administration has committed more than \$13 billion in federal loans and grants to boost electric vehicles, and "has generated great concern regarding the potential for waste, duplication and cronyism and the potential of picking 'winners and losers' among [competing](#) companies and technologies."

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## House Panel to Cite New Flaw in Energy Loans

By MATTHEW L. WALD  
Published: March 19, 2012

WASHINGTON — A Congressional committee that has been investigating the Energy Department's loan programs is adding to its line of attack on the eve of an appearance by the energy secretary before the panel.

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Rachel Donnan, CoverCorps, Chris Calvert, via Associated Press

Representatives Darrell Issa, left, and Blake Farenthold at a hearing held by Mr. Issa's investigative committee last month.

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The House Oversight and Government Reform Committee has been seeking with limited success to portray the financial support for a solar company, *Solyndra*, which eventually went bankrupt, as a politically inspired boon to an Obama campaign fund-raiser who was an investor in the business. But at a hearing scheduled for Tuesday, the committee is to release a staff report that argues that in other instances the Energy Department overrode the objections of some of its professional staff members to pick aid recipients that were supposed to have innovative projects when, in fact, the technology was nothing new.

"The Department of Energy manipulated analysis, ignored objections from career professionals and strategically modified loan evaluations in order to force project funding out the door," the committee's chairman, Representative Darrell Issa, Republican of California, said in a statement.

But supporters of the Energy Department said that there was no Congressional requirement that the loans in question be for novel technology, and that the department stuck to a standard adopted during the George W. Bush administration requiring only that the projects use technology not yet commercialized in the United States.

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sought to add a new feature to its [Agua Caliente project](#) in Yuma County, Ariz.: a piece of equipment called an inverter, which would allow the solar panels to keep operating even if voltage on the electric grid was disrupted. That technology has been in increasing demand since the 2003 Eastern blackout. It is especially important in solar farms as their numbers grow, because if they tend to shut down because of small disturbances in the grid, they will add to instability.

But a document given to the committee by the Energy Department said the inverters were already being made in Germany and in Colorado. "As of September 2010, over 200 units had been deployed and in operation in Germany, Italy and Spain," the document said. "These units are commercially shipping today in the United States as well." The project, which at 290 megawatts would be the largest solar farm in the world, [got a \\$967 million loan](#) and is in partial operation.

To classify the second NextLight solar farm, the [Antelope Valley Solar Ranch](#) in California, as innovative, First Solar proposed that some of the cells be mounted on mechanisms that would pivot them to keep them pointed toward the sun. But an e-mail to co-workers from Dong K. Kim, the director of the technical and project management division of the loan program, complained that "someone keeps changing the A.V.S.R. slides to include single axis trackers as an innovation. Be clear that this is not an innovation." The project got \$646 million in loans and loan guarantees, but has been delayed by permitting problems.

Ted Meyer, a spokesman for First Solar, said the Agua Caliente and Antelope Valley projects met the Energy Department's guidelines for being innovative because they used technology that was not in commercial use in the United States.

But the factory is on hold. It is nearly complete, but because of a worldwide surplus of solar cells, the company has no immediate plans to operate it, he said.

At the Energy Department, Damien LaVera, a spokesman, accused Congressional critics of the loan program of "cherry-picking individual e-mails from the hundreds of thousands of pages of documents the department has provided to Congress, with the sole purpose of inventing false and misleading controversy." The loans met a standard for innovation set under the first President Bush and confirmed by a senior career official at the department, he said.

*This article has been revised to reflect the following correction:*

**Correction:** March 29, 2012

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EE-2G	Office of Vehicle Technology Program Edward James Wall, Program Manager .....	202-586-8055	202-586-7409	5G-030/FORS
EE-2H	Office of Hydrogen, Fuel Cells and Infrastructure Technologies Program JoAnn Milliken, Program Manager .....	202-586-2480	202-586-9811	5G-064/FORS
EE-2J	Office of the Building Technologies Program David E. Rodgers (Acting), Program Manager .....	202-586-8038	202-586-4617	1I-030/FORS
EE-2K	Office of the Weatherization and Intergovernmental Program David E. Rodgers (Acting), Program Manager .....	202-586-8038	202-586-4617	1I-030/FORS
EE-2L	Office of the Federal Energy Management Program Scott L. Richlen (Acting), Program Manager .....	202-586-2076		5F-063/FORS

**Office of the Deputy Assistant Secretary for Business Administration**

EE-30	Office of the Deputy Assistant Secretary for Business Administration Rita L. Wells (Acting), Deputy Assistant Secretary .....	202-586-1776	202-586-8177	6A-067/FORS
EE-3A	Office of Program Execution Support Linda F. Whitted (Acting), Director .....	202-586-2555	202-586-6551	5E-036/FORS
EE-3B	Office of Planning, Budget and Analysis A. Avon Meacham, Director .....	202-586-9624	202-586-2176	6B-056/FORS
EE-3C	Office of Information and Business Management Systems Scott E. Hine, Director .....	202-586-9744		5H-095/FORS

**ENERGY INFORMATION ADMINISTRATION**

EI-1	Office of the Administrator, EIA Guy F. Caruso, Administrator .....	202-586-4361	202-586-0329	2H-027/FORS
EI-2	Office of the Administrator, EIA Howard K. Gruenspecht, Deputy Administrator .....	202-586-6351	202-586-0329	2H-027/FORS
EI-3	Office of the Administrator, EIA Jay H. Casselberry, Executive Assistant .....	202-586-8616	202-586-0329	2H-027/FORS
EI-4	Office of the Administrator, EIA Susan H. Holte, Technical Assistant .....	202-586-4833	202-586-0329	2H-027/FORS
EI-5	Office of the Administrator, EIA Erik M. Rasmussen, Senior Advisor .....	202-586-2762	202-586-0329	2H-027/FORS

**Office of Information Technology**

EI-10	Office of Information Technology William R. Underwood, Director.....	202-586-1981	202-586-0448	BG-041/FORS
EI-12	Infrastructure Division Diane G. Chiarizia, Director.....	202-586-1098	202-586-0448	BG-041/FORS
EI-13	Systems and Policy Division Betty Louise Barlow, Director.....	202-586-5199	202-586-0448	BG-041/FORS
EI-14	User Services and Security Division Noel C. Balthasar, Director.....	202-586-1853	202-586-0448	BG-041/FORS

**Office of Resource Management**

EI-20	Office of Resource Management Stephen F. Durbin, Director.....	202-586-3521	202-586-9456	1E-226/FORS
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**National Energy Information Center**

EI-30	National Energy Information Center Virginia A. Pearson, Director.....	202-586-6537	202-586-0114	1E-226/FORS
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**Office of Oil and Gas**

EI-40	Office of Oil and Gas Stephen J. Harvey, Director.....	202-586-6012	202-586-9739	2G-020/FORS
EI-42	Petroleum Division John S. Cook, Director.....	202-586-5986	202-586-3873	2G-051/FORS
EI-44	Natural Gas Division James M. Kendell, Director.....	202-586-9646	202-586-4420	BE-056/FORS
EI-45	Collection and Dissemination Division Audrey E. J. Corley, Director.....	202-586-4804	202-586-1073	2E-052/FORS
EI-46	Reserves and Production Division John H. Wood, Director.....	214-720-6160	214-720-6155	1100/DALLAS

**Office of Coal, Nuclear, Electric and Alternate Fuels**

EI-50	Office of Coal, Nuclear, Electric and Alternate Fuels Scott B. Sitzer, Director.....	202-586-2800	202-287-1933	2H-093/FORS
EI-52	Coal, Nuclear and Renewable Fuels Division Thomas A. Schmitz, Director.....	202-287-1641	202-287-1934	2H-078/FORS
EI-53	Electric Power Division Robert M. Schnapp, Director.....	202-586-5114	202-287-1934	BE-060/FORS
EI-53.1	Electric Market Assessments Group (Vacant), Chief.....	202-586-5114		
EI-54	Data Integration and Dissemination Division Anthony V. Rosati, Director.....	202-586-8982		1G-063/FORS

**Office of Energy Markets and End Use**

EI-60	Office of Energy Markets and End Use Margot H. Anderson, Director.....	202-586-2589	202-586-9753	2G-090/FORS
EI-62	Energy Markets and Contingency Information Division Douglas M. Macintyre, Director.....	202-586-1831	202-586-9753	2G-090/FORS
EI-63	Energy Consumption Division Stephanie J. Battles, Director.....	202-586-7237	202-586-9753	2G-090/FORS
EI-64	Integrated Energy Statistics Division Joseph C. Ayoub, Director.....	202-586-8994	202-586-9753	2G-090/FORS

of the  
United States of America

AT THE FIRST SESSION

*Began and held at the City of Washington on Thursday,  
the fourth day of January, two thousand and seven*

An Act

To move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas capture and storage options, and to improve the energy performance of the Federal Government, and for other purposes.

*Be it enacted by the Senate and House of Representatives of  
the United States of America in Congress assembled,*

**SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

(a) **SHORT TITLE.**—This Act may be cited as the “Energy Independence and Security Act of 2007”.

(b) **TABLE OF CONTENTS.**—The table of contents of this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Definitions.
- Sec. 3. Relationship to other law.

**TITLE I—ENERGY SECURITY THROUGH IMPROVED VEHICLE FUEL  
ECONOMY**

**Subtitle A—Increased Corporate Average Fuel Economy Standards**

- Sec. 101. Short title.
- Sec. 102. Average fuel economy standards for automobiles and certain other vehicles.
- Sec. 103. Definitions.
- Sec. 104. Credit trading program.
- Sec. 105. Consumer information.
- Sec. 106. Continued applicability of existing standards.
- Sec. 107. National Academy of Sciences studies.
- Sec. 108. National Academy of Sciences study of medium-duty and heavy-duty truck fuel economy.
- Sec. 109. Extension of flexible fuel vehicle credit program.
- Sec. 110. Periodic review of accuracy of fuel economy labeling procedures.
- Sec. 111. Consumer tire information.
- Sec. 112. Use of civil penalties for research and development.
- Sec. 113. Exemption from separate calculation requirement.

**Subtitle B—Improved Vehicle Technology**

- Sec. 131. Transportation electrification.

***Summary Review of the Technical  
Results from the McKinsey &  
Company Report: "A Portfolio of power-  
trains for Europe: a fact-based analysis; The role  
of Battery Electric Vehicles, Plug-in Hybrids and  
Fuel Cell Electric Vehicles"***

Presented to the DOE Hydrogen and Fuel Cell Technical  
Advisory Committee (HTAC)

February 18, 2011

by C. E. (Sandy) Thomas, Ph.D., ex-President  
H<sub>2</sub>Gen Innovations, Inc.  
Alexandria, Virginia

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# Promises

Posted on 07-12-2010 | By: **admin** |

Category : [Energy Issues](#), [Environmental Issues](#), [Politics](#), [Solar](#)



The black liquor fiasco provided an example to those of us in the pulp and paper industries of just how blatantly corrupt the current Congress is, with the support of the President. (If you are new to the Blog, see [Less Than Free Enterprise](#) for a fascinating story that was missed by the mainstream media.)

Jim McTague wrote an insightful story in Barron's over the week-end that demonstrated the failure of solar energy to earn its own way. Even with hundreds of millions of dollars in grants and loan guarantees, some companies will still not be viable.

McTague also pointed out that the recipients of these huge solar energy grants were "connected" to (not the Mafia but to its more dangerous counterpart) Congress and the President. Passages from [Our Tough Luck President](#) follow.

In this story, only government subsidies are "sustainable"

*SOLYNDRA was the first recipient of a loan guarantee under the dual auspices of the Recovery Act and Title XVII of the Energy Policy Act of 2005. The Department of Energy noted the loan guarantee was the first it had issued since the 1980s. On Sept. 4, 2009, the day of the award, Vice President Joe Biden crowed that it was "part of the unprecedented investment this Administration is making in renewable energy, and exactly what the Recovery Act is all about." DOE Secretary Steven Chu called it "part of a broad, aggressive effort to spark a new industrial revolution that will put Americans to work, end our dependence on foreign oil and cut carbon pollution."*

he President visited the plant earlier this year.

*When he [President Obama] toured Solyndra's Fremont, Calif., factory in May, he gushed that the company was "leading the way toward a brighter and more prosperous future."*

ut things have not worked out.

*Solyndra, recipient of a \$535 million Department of Energy loan guarantee, last month cancelled a \$300 million initial public offering because auditor PriceWaterhouseCooper said its operating losses and negative cash flow raise doubts about its ability to continue as a going concern. Ouch!*

*Taxpayers are on the hook for \$390.5 million—73% of the loans. Some observers questioned the wisdom of the government's deal from the start, saying the company was an inefficient, high-cost producer.*

*One of Solyndra's biggest stakeholders is Argonaut Ventures I. Its majority owner is Oklahoma oil billionaire George Kaiser, who was a "bundler" of campaign funds for the Obama-Biden campaign. This means he collected contributions and sent them en masse to the candidates. Kaiser e-mailed us an emphatic "NO" when we asked if he played any role in the pursuit of the loan guarantees.*

ut that is not all.

*... this month, the DOE awarded loan guarantees to Abengoa Solar, part of [Abengoa](#), a Spanish outfit whose U.S. shares (ticker: ABGOY) trade in the pink sheets, and Abound, a Colorado-based photovoltaic-film maker.*

*Abengoa Solar got \$1.45 billion in guarantees to build plants in California and Arizona. Its profits depend heavily on subsidies from the government of economically troubled Spain.*

*Abound Solar received a \$400 million grant to ramp up production of cadmium telluride photovoltaic panels. Here's a coincidence: Russ Kanjorski, nephew of Pennsylvania Democratic Rep. Paul Kanjorski, is a marketing executive at Abound, which got a \$3 million federal grant in 2008. He previously had been a principal of Cornerstone Technologies, which got \$9.2 million in earmarks from Kanjorski and then went bankrupt. A spokesman for Abound says Russ Kankorski had no role in the loan-guarantee negotiations.*

## More Energy Department Rewards for GM Bankruptcy Allies?

Submitted by [Mark Medina \(@markmedina\)](#) on Mon, 05/21/2012 - 09:10

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[Lokey group suspiciously received a \\$1.35 million contract from the Energy Department](#) (<http://nhc.org/stories/2012/05/01/treasury%20%80%9000-gm-bankruptcy-ally-gets-payoff-energy-department>) to track the government money lent to Fisker Automotive and Beacon Power Corp. Houlihan Lokey was the institutional bondholder representative which smoothed the way for the General Motors' bankruptcy process by endorsing the Obama Administration's 363 bankruptcy plan. I have now uncovered three more firms that cooperated in the GM bankruptcy process that have subsequently been awarded Energy Department contracts.

Back in late May of 2009 a revised offer was made to GM bondholders, which if accepted, would smooth the company's path through bankruptcy court. [According to a TheDetroitBureau.com report](#) (<http://www.thedetroitbureau.com/2009/05/treasury-changes-offer-to-banking-gm-bondholders/>) the two major representatives of institutional bondholders supported the deal. The article quotes GM as stating, "We have been informed by the advisors to the unofficial committee of unsecured GM Noteholders, Houlihan Lokey Howard & Zukin Capital, Incorporated, and Paul, Weiss, Rifkind, Wharton & Garrison LLP, that the unofficial committee and other large noteholders (who collectively hold approximately 20% in aggregate principal amount of the Notes) support the economic terms of the Proposal,"

I previously found a [Bloomberg report unearthing the \\$1.35 million Houlihan Lokey contract](#), (<http://www.bloomberg.com/news/2012-04-27/u-s-said-to-hire-structuring-advisor-to-monitor-fisker-jean.html>). Now, I have discovered an [AM Law Daily report](#) (<http://amlawdaily.typepad.com/amlawdaily/2012/04/firms-recover-act.html>) that lists firms benefiting from the Federal Recovery Act and Energy Department contracts. On the list; Paul, Weiss, Rifkind, Wharton & Garrison, which received \$1.28 million as legal counsel to the Energy Department in connection with ATVM (Advanced Technology Vehicle Manufacturing) loans involving Tesla Motors, Nissan North America, and Magna E-Car Systems. Coincidence? How about one more?

The legal firm, [Cleary Gottlieb](#), represented the UAW in the GM bankruptcy process. ([http://www.cpb.com/uaw\\_in\\_gm\\_bankruptcy/](http://www.cpb.com/uaw_in_gm_bankruptcy/)) Surprise! Another \$1.02 million awarded to the firm from the Energy Department to "advise on aspects of its ATVM program, the same one under which Fisker obtained its government loan." There sure are lots of legal firms "advising" on the same program. That Fisker is like the gift that keeps giving!

Yet another firm on the list was Clifford Chance which was awarded \$1.5

incidental that the four legal firms that cooperated in the GM bankruptcy process all received Department of Energy contracts worth millions? I doubt it. Especially given the back door negotiations that the President's Auto Task Force had with Houlihan Lokey, and most probably the fact that Houlihan Lokey went on to claim that 54% of bondholders were bailed out by the GM 2009 bankruptcy process. This claim has never been substantiated and warrants further investigation.

It is the first time that the unethical aspects of the GM bankruptcy process have been investigated by authorities. This latest evidence of probable payoffs funded by more taxpayer money and seemingly laundered through the President's wasteful green energy programs should enrage Americans. The evidence of this Administration to blatantly award contracts to firms that were already in bed with should not go unnoticed. It is doubtful that the Energy Department just innocently happened to dole out contracts worth millions of dollars to "track" or "advise" on money lent to companies that were bailed out to legal firms that coincidentally helped with the GM bankruptcy process. In addition, the wastefulness of the Energy Department is evident in the fact that it is throwing good money after bad on taxpayer-funded fiascos like the California Cap and Trade Program and the American Power

*Modica is an NLPC Associate Fellow.*

*[Click here for more information on the NLPC Associate, Paul Chesser, has written here regarding the contributions of some of these same firms.](#)*

<http://www.nlpc.org/stories/2009/01/09/taunton-who-backed-obama-advised-failed-firm>



## Federal Loan Perkins Cole Helped Company Land

*The original version of this story misstated the role played by Perkins Cole on Fisker's apartment loan. The second paragraph of the story has been revised to include*

*environmentally friendly vehicles, [has unveiled its plans for a new high-performance hybrid](#) millions more in federal funds to operate the Delaware plant that would produce*

*application for a [\\$528.7 million loan from the U.S. Department of Energy secure](#) [Vehicles Manufacturing \(ATVM\)](#) program, according to a press release issued*

*a series of embarrassing stumbles, [according to a report this week by The New](#)*

*[like Fisker](#) resulted in one of the company's \$107,000 luxury Karma plug-in hybrid*

*, (On a positive note, [Justin Bieber and several other Hollywood celebrities are](#)*

early February, Fisker suspended operations at its plant in Wilmington, Delaware, [laying off workers and ceasing production of its \\$50,000 Nima model](#). [Tesla retained the Fisker Atlanta's](#) Fisker's move came after the Energy Department noted the company failed to meet certain milestones and [blocked further investments under the ATVM program](#). The federal government had awarded Fisker \$169 million to engineer the Karma and another \$239 million to manufacture the Nima, [according to news reports](#). (The Energy Department paid [Debesovic & Plimpton](#) roughly \$1.9 million in federal stimulus funds to review and advise on ATVM loan applications by Fisker and Ford Motor Company, according to [Reuters](#). [Aut research](#).)

By the time the feds shut off the cash spigot last year, Fisker had already tapped into \$193 million of its available funds under the ATVM program. Part of the money had been spent on equipping and refurbishing the Wilmington facility, a former General Motors plant. ([The Detroit Area's expanded](#) [Wednesday](#) that which Fisker has raised about \$1 billion privately, it needs the government funds to keep the production of its next-generation sedan in the United States.)

In February, [Fisker hired former Chrysler CEO Thomas J. Sonda to run the company](#), which was cofounded in 2007 by Danish automobile designer [Mark Fisker](#), who now serves as the start-up automaker's executive chairman.

This Fisker's new management seeks to convince the Energy Department to release the remaining funds, it is uncertain whether the company also has outside lawyers.

Fisker spokesman Roger Ormisher and company general counsel [Matthew Pinsky](#) did not respond to requests for comment on whether the company is using outside lawyers in its quest to get the Energy Department to unfreeze the rest of its promised government loans.

Perkins Coie spokeswoman told The Am Law Daily on Wednesday that the firm is not currently doing any work for Fisker. Asked whether that meant Fisker was still a firm client who simply did not need the advice of outside counsel for its current dealings with the Energy Department, the spokeswoman reiterated that as "not currently doing any work for Fisker."

Perkins Coie, which has close ties to the Obama administration through partner and former White House counsel [Robert Pastey](#), has a long history of representing start-ups and other venture capital-backed companies. Last month the firm's emerging companies practice debuted its own "[Startup's Column](#)" to offer free legal advice to new companies as an [alternative to raising up to \\$25,000 in legal fees](#).

Another firm that frequently vies with Seattle-based Perkins Coie for counsel status to start-ups and other emerging companies backed by venture capital shops is Silicon Valley stalwart [Wilson Sonsini Goodrich & Rosati](#), which counts as a client Palo Alto-based Tesla Motors, [which has also received federal funds](#) and one of Fisker's top competitors in the alternative-vehicle sector.

Wilson Sonsini advised Tesla three years ago on the sale of a 10 percent stake to German auto giant Daimler. Name partner and firm chairman Larry Sonsini is once a member of Tesla's board of directors and serves as standing outside counsel to Tesla.

Coincidentally, former Facebook deputy general counsel and Wilson Sonsini lawyer [John Popowitz](#), one of the top female angel investors in Silicon Valley, has made investments in Fisker.

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## Politics Hurting Automakers Looking for Federal Loans?

April 28, 2012 by alexandria

Years ago, electric carmaker Coda Automotive petitioned the U.S. Department of Energy for submitted a \$33 million in loans to help fund the construction of an EV battery plant in Columbus, Ohio.

According to Coda's senior vice president of government affairs, Forrest Bealum, the application has been in a "stagnant" state ever since, and last month Coda withdrew the loan application.

The application is being reviewed by the Department of Energy, which administers the Advanced Technology Vehicles Manufacturing program, never responded to the application.

Coda has raised upwards of \$300 million in private investments and cut costs while waiting on the loan. It has also moved its battery production plant in Columbus, Ohio, Coda has outsourced those operations to China, along with its assembly operations. Bealum estimates the Columbus factory would have employed between 1,000 and 2,000 workers.

Bealum said, "We just needed to continue operations overseas to meet our business plan."

It is not the only automaker to fail in its attempts to secure federal loans from the \$25 billion Advanced Technology Vehicles Manufacturing Loan Program.

Another startup automaker, Bright Automotive, went out of business while waiting for approval of its loan application. According to the automaker, the process was taking too long and the loan terms were becoming too restrictive. Another startup automaker, Bright Automotive, went out of business while waiting for approval of its loan application.

Technology Vehicles Manufacturing Loan Program was created in 2007 and funded in 2008. The program is designed to support research and design of more fuel efficient conventional vehicles and alternative powertrain technologies, including plug-in hybrids and all-electric automobiles. However, the program has come under attack in recent months due to the high profile bankruptcy of another DOE loan recipient, Solyndra.

It became clear to us after the Solyndra debacle that things in Washington as it pertains to alternative energy are becoming quite politicized. Going into an election year, our objective was not to be unnecessarily sidetracked. We have only five Advanced Technology Vehicles Manufacturing Loan Program loan requests have been approved. The program reportedly has about \$15 billion left to be dispersed.

General Motors will launch its new electric vehicle in the U.S. later this year. The Coda sedan will have a base price of about \$30,000. It will come with a 10-year/100,000-mile guarantee on its lithium battery pack. The company plans to launch the Coda in California initially, and slowly expand into other regions of the U.S.

See the following link for more [automotive industry news](#).

WSJ HOT TOPICS: DESIRÉE ROGERS

DECEMBER 5, 2008 2:45 PM ET

# Tesla Opposes Redirection of ATVM Funds

ARTICLE

COMMENTS (2)

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By Marisa Wong



## The Tesla Roadster

The Competition update: You won't see Tesla Motors among the U.S. automakers currently groveling before Congress for a bailout. The Silicon Valley company, whose cars do not use gas at all, did, however, apply in mid-November for a grant from the Department of Energy's Advanced Technology Vehicle Manufacturing Incentive Program, known as ATVM. This is a \$25 billion fund earmarked for makers of ultra-fuel-efficient cars that push technology beyond the internal combustion engine.

Congress established the program in December 2007, when it passed the Energy Independence and Security Act. It became a reality in September 2008—a month before sales of U.S. cars dove to near-record levels. When Detroit automakers began jostling for stop-gap cash, the ATVM funds caught their eye, and U.S. carmakers urged Congress to redirect the funds to prop them up.

January 5, 2010

## No clue on status of loan guarantees

Department of Energy is mum after promising awards just before the holidays

- Comments & updates below -

Less than a month ago, the Department of Energy (DOE) was giving strong signals that a long-running impasse with the Office of Management & Budget (OMB) had been resolved on the pricing of premiums for federal loan guarantees for new nuclear power plants. An ebullient Warren (Pete) Miller, DOE Assistant Secretary for Nuclear Energy, (right) was quoted Dec 17 in [wire service reports](#) that "we will have loan guarantees by the end of the year."



That time has come and gone. Today, Jan 5, a spokesman for DOE told this blog the agency is "still crossing t's and dotting i's."

Asked if the dialog with OMB had been resolved, the spokesman would only say the agency is not ready to announce the winners of the loan guarantees. This outcome is a puzzle since last November Secretary of Energy Steven Chu [announced](#) a new director of the loan guarantee program.

It has been an open secret since last Spring that DOE has a [short list](#) of four projects which have passed the agency's rigorous standards for due diligence and market readiness. However, on Dec 24, just one week after Ass't Sec. Miller voiced considerable optimism, another DOE official threw cold water on the prospects for any awards in 2009.

### What other issues are in the mix?

The New York Times reported that [Daniel Poneman](#), Deputy Secretary of Energy, (right) said the DOE's negotiations with energy companies on loan guarantees for "first mover" reactors "still has some distance to cover."



According to the newspaper, DOE and OMB remained at odds over the credit subsidies that

been criticism of the Obama administration's work on the loan guarantee program from nonproliferation experts like [Sharon Squasinni](#) at the Carnegie Endowment who has written several highly critical reports. Of course, it's impossible to say whether they are influential. It would be helpful if Ms. Squasinni would get some of her facts straight. For instance, Ameren would be surprised to learn there are no commercial nuclear reactors in Missouri.

### **Congressional impatience surfaces**

As DOE and OMB remain locked in a stalemate, Congress is getting frustrated as evidenced by a [letter](#) sent from six Senators, including Idaho's [Sen. Mike Crapo](#), to [Peter Orszag](#), the director of OMB.

There's a lot of pent up impatience in the letter. While the language is couched in the parlance of congressional budget technicalities, the message is clear. Get the lead out and get the job done. How could that not be more clear?

Secretary Chu has few good options if OMB is keeping the loan guarantees bottled up. Going over the head of the budget agency to the White House is a risky step which could backfire. Chickens could come home to roost in future bureaucratic tangles.

Also, there remains the question of whether OMB is digging in its heels on its own initiative or if there is White House pressure showing up on this front. It may take a White House intervention to clear out the tangled issues that have yet again shown the at best lukewarm support for nuclear energy coming from the Obama administration.

### **Comment from Ed Kee**

*Blogger's note to readers - normally comments appear in a link below an article, but this one from [Ed Kee](#) shines new light on process and expected outcomes. Full text follows.*

"I appreciate the desire to see action on loan guarantees now, but this may be inconsistent with the process.

Secretary Chu, in a 22 Dec 2009 [letter](#) to Congress outlined the DOE Loan Guarantee process and schedule.

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## Term Sheet

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# About time: Cuomo finally sues Steve Rattner

Posted by Dan Primack

November 18, 2010 10:21 am



It seems that Andrew Cuomo has a wonderful sense of theater.

On the very day that Steve Rattner is all over cable news to discuss GM's (GM) return to the public markets, he has (finally) been sued by the Governor-in-waiting for his alleged role in the New York public pension kickback scandal.



There actually are three separate actions, with the first two seeking to recover a total of \$20 million from the former car czar. The third seeks to permanently ban him from the securities industry.

"Steve Rattner was willing to do whatever it took to get his hands on pension fund money including paying kickbacks, orchestrating a movie deal, and funneling campaign contributions," Cuomo said in a statement. "Through these lawsuits, we will recover his ill gotten gains and hold Rattner accountable."

The SEC also has filed suit ([here's a copy](#)), and disclosed details of a previously-reported settlement. It says that Rattner has agreed to pay a \$6.2 million penalty, and accept a two-year ban from "associating with any investment adviser or broker-dealer."

Got to wonder how that last part will square with his role in the firm that manages the fortune of Rattner friend/apologist Mike Bloomberg... Yes the firm is (intentionally?) structured as an asset manager instead of a broker-dealer, but doesn't the Mayor at some point have a responsibility to speak out against public corruption. I've put in a call to Bloomberg's office, but have not yet received comment.

If you haven't been following the case for the past two years, here is a quick rundown of Rattner's alleged actions (note: I'm cribbing this from an earlier post, because there are only so many times you can write the same thing without going mad):

- Rattner secured a video distribution deal for the brother of New York pension fund CIO David Loglisci, via a (now defunct) Quadrangle portfolio company. The deal was done over the initial objections of portfolio company management. Not only does this indicate pay-to-play, it also would seem to mean that Rattner violated his fiduciary obligations to Quadrangle limited partners (not letter of obligations, but spirit).
- Rattner also helped connect Loglisci's brother with people at film channel IFC, in which Quadrangle was an investor.
- Presumably at Loglisci's suggestion, Rattner secretly hired Hank Morris as a "placement agent," in order to secure a \$100 million fund commitment for Quadrangle from the New York State Common Retirement Fund (it was later increased to \$150m). This came after Quadrangle's legitimate placement agents had only been able to secure between \$25 million and \$50 million. Morris got Quadrangle the money without ever setting up or attending any meetings with CRF on Quadrangle's behalf.
- Morris also helped get Quadrangle \$75 million from New York City pension systems, via a third-party who since has pled guilty to securities fraud.
- One of Loglisci's brothers put Rattner in touch with potential investors on the West Coast. These included Elliott Broidy, who sat on the board of the Los Angeles Fire & Police Pension Fund. LAFPPF committed \$10 million to Quadrangle, and Broidy has since pled guilty to felony charges of rewarding official misconduct.
- In 2006, Morris allegedly asked Rattner for a contribution to the reelection campaign of State Comptroller Alan Hevesi (Loglisci's boss, who last week pled guilty to fraud). Rattner demurred, saying that he had a policy against making contributions to public officials with oversight over investments. Morris suggested that Rattner contribute the money via a third party. Soon after, Rattner tapped a Democratic donor who subsequently contributed

approximately \$25k to Hevesi (plus another \$25k from the donor's wife). That donor has been identified, but a source tells me that he was unaware of backroom shenanigans.

Quadrangle cooperated with Cuomo almost immediately, but spent months in limbo as its former partner refused to settle. Cuomo finally let Quadrangle act independently, after it agreed to repay \$12 million (inclusive of a related settlement with the SEC), agree to a "code of conduct" and issue a blistering statement against Rattner. The private equity firm has since begun to regroup, although it has not yet been able to raise a new fund.

Here is a copy of the summons and complaint from Cuomo:

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SUPREME COURT OF THE STATE OF NEW YORK  
COUNTY OF NEW YORK

----- X

THE PEOPLE OF THE STATE OF NEW YORK :  
By ANDREW M. CUOMO, Attorney General of the  
State of New York, :

-against- :

STEVEN L. RATTNER, :  
Defendant. :

----- X

**SUMMONS**

Index No.

Plaintiff Designates  
New York County as the  
Place of Trial

TO THE ABOVE-NAMED DEFENDANT:

**YOU ARE HEREBY SUMMONED** to answer in this action and serve a copy of your answer, or if the complaint is not served with the summons, to serve a notice of appearance on the Plaintiff's attorney within twenty (20) days after the service of the summons, exclusive of the day of service. If this summons is not personally served upon you, or if this summons is served upon you outside of the State of New York, then your answer or notice of appearance must be served within thirty (30) days. In case of your failure to appear or answer, judgment will be

By [Josie Garthwaite](#) May. 22, 2009, 7:19am PDT [No Comments](#)

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The energy industry has had it up to here with delays in the Department of Energy loan guarantee program. Like Energy Secretary Steven Chu, they want to [get money moving pronto](#). So this week groups representing solar, wind, biomass, geothermal, hydro and nuclear power companies [sent a letter](#) (PDF) to key White House officials calling for the DOE and the budget office to make nice and eliminate some hurdles. They've laid out a game plan to make that happen.

In a broad sense, the groups suggest that the DOE and the Office of Management and Budget can skip lengthy discussions about how to regulate the loan guarantee program. But they also have some more specific ideas for changes that could accelerate the application and evaluation process. To start, they recommend eliminating the "preliminary credit assessment," a process used to determine a borrower's creditworthiness and a [heavily weighted factor](#) in the DOE's financial scoring system (it also assigns projects a technical score).

These assessments, conducted by independent credit rating agencies, can cost hundreds of thousands of dollars. The letter-writers argue that the assessment is unnecessary for proven commercial technologies and ineffective for unproven innovative ones.

Kleiner Perkins partner John Denniston touched on this issue at a recent Senate Natural Resources Committee hearing on proposed changes to the guarantee program, suggesting (as we [wrote last month](#)) that startups be allowed to volunteer for a "quadruple-Z" credit rating, avoiding the credit rating agency review that's expensive and typically finds that a fledgling company has not established good credit (most startups simply haven't been in business long enough to do that).

The energy industry groups behind this week's letter also want multiple environmental reviews to be consolidated, calling for a new requirement that the DOE accept the review and decisions of state and

al permitting agencies. The idea is to help companies avoid having to complete separate environmental reports and go through lengthy permitting procedures at multiple agencies.

the DOE finally decides who will get the loan guarantees, the energy groups see more way to speed up project development. How about allowing the DOE to enter into full-on loan guarantee agreements, instead of “just merely conditional agreements,” so that outside project sponsors don’t have to step up to get a project started after government funds are promised but not yet available? “It’s more confidence they won’t lose their investment?”

As we’ve noted before, a green light on a loan guarantee does not mean money in the bank. Lenders still have to “secure their own share of financing — similar to earnest money in a home sale,” the DOE explained earlier this year. And so as another carrot for outside investors, many industry groups call for more flexible collateral sharing among co-lenders.

Stakes are high, according to leaders of the American Wind Energy Association, the Geothermal Energy Association, Solar Energy Industries Association, and other groups that signed the letter.

Further delay endangers the planned role of the green energy economy in the nation’s economic recovery and undermines the effort to meet your Administration’s energy policy goals, including the doubling of renewable energy supply in three years.

Time is ticking. After a 2-year extension approved as part of the stimulus package, the DOE’s authority to make loan guarantees under this program is set to [expire in September 2011](#).

1. [Sustainable Industries Daily Update May 22, 2009](#) Tracked on

[...] Renewable energy companies (and nuclear advocates) want the DOE to speed up loan guarantees. [...]

2. [Steve Westly Predicts the Next Cleantech IPOs: Tesla, Silver Spring, Solyndra May 25, 2009](#) Tracked on

[...] has taken notice. Back in March the DOE offered Solyndra the first loan guarantee under a much-delayed program created under the Energy Policy Act of 2005. Solyndra plans to use the \$535 million loan guarantee [...]

3. [DOE Wins Down Pool for High-Risk Energy Tech Funds July 31, 2009](#) Tracked on

[...] didn't get funding from Congress until the stimulus package passed earlier this year, and the delays seen in other government energy programs, it's encouraging that feedback is going out on schedule at this point. According to Elise [...]

4. [Stimulus Funds Almost Fully Tapped — Time For the Jobs Crunch January 20, 2010](#) Tracked on

[...] No one wants that to happen, and there's no doubt that Rogers and the DOE have been working extremely hard to find solid projects that create jobs and boost the U.S. economy. Rogers and Secretary of Energy Steven Chu have in a matter of mere months transformed the methods and pace at which the DOE selects and allocates funding. The environment of the DOE before Chu and Rogers came in was used to working slowly and with a lot of bureaucracy — for example the DOE let loan guarantees hang in limbo for years. [...]

## PRICE RANGE OF COMMON STOCK AND DIVIDEND POLICY

Our common stock is listed on the New York Stock Exchange under the symbol "F." The following table sets forth, for the quarters shown, the range of high and low composite prices of our common stock on the New York Stock Exchange and the cash dividends declared on the common stock. The last reported sales price of our common stock on the New York Stock Exchange on October 30, 2009 was \$7.00 per share.

	High*	Low*	Dividends Declared
<b>2009</b>			
Fourth quarter (through October 30, 2009)	\$7.98	\$6.61	\$ —
Third quarter	8.86	5.24	—
Second quarter	6.54	2.40	—
First quarter	2.99	1.50	—
<b>2008</b>			
Fourth quarter	\$5.47	\$1.01	\$ —
Third quarter	6.33	4.17	—
Second quarter	8.79	4.46	—
First quarter	6.94	4.95	—
<b>2007</b>			
Fourth quarter	\$9.24	\$6.65	\$ —
Third quarter	9.64	7.49	—
Second quarter	9.70	7.67	—
First quarter	8.97	7.43	—

\* New York Stock Exchange composite interday prices as provided by the [www.NYSEnet.com](http://www.NYSEnet.com) price history data base.

Our Board of Directors has not declared dividends on our common stock or Class B Stock since the third quarter of 2006. Furthermore, our senior secured credit facility and our Department of Energy ATVM loan facility contain a covenant restricting us from paying dividends (other than dividends payable solely in stock) on our common stock and Class B Stock. Additionally, as announced on March 4, 2009, we deferred future interest payments on our 6.50% Junior Subordinated Convertible Debentures due January 15, 2032 beginning with the April 15, 2009 quarterly interest payment and the terms of the debentures prohibit us from paying dividends with respect to our common stock or Class B Stock during such deferral period. As a result, it is unlikely that we will pay any dividends on our common stock in the foreseeable future. In any event, the declaration and payment of future dividends by our Board of Directors will be dependent upon our earnings and financial condition, economic and market conditions and other factors deemed relevant by our Board of Directors. Therefore, no assurance can be given as to the amount or timing of the declaration and payment of future dividends.

## DOE Hires Venture Capitalist to Oversee Cleantech Funding Program [http://greenenergyreporter.com/funding/doe-hires-venture- capitalist-to-oversee-key-cleantech-funding-program/](http://greenenergyreporter.com/funding/doe-hires-venture-<br/>capitalist-to-oversee-key-cleantech-funding-program/)



Back in March, as the first draft of the Obama administration's green energy investment program began to emerge, we asked the **Department of the Treasury** was poised to become cleantech venture capital fund (<http://greenenergyreporter.com/2009/03/the-treasury-clean-energy-new-vc-vc/>).

It turns out that we were wrong. Treasury only administers the administration's green energy funds. The **Department of Energy** has the power is, since it actually decides who gets the money. For confirmation of DOE's big power, look no further than [this press release](#)

(<http://www.energy.gov/news2009/8280.htm>), announcing the appointment of **Jonathan Silverman**, a Washington-based venture capitalist, as the executive director of the DOE's loan program



In a regulatory filing yesterday (May 15th), A123, the supplier of battery packs to the Paker Karma, and upcoming Chevrolet Spark EV, disclosed two very important, and two very divergent pieces of information.

The first of which is that they no longer want the government's money, 233 million of it, under the ATVM (Advanced Technology Vehicle Manufacturing) program.

*"We have recently notified the DOE that we have elected to withdraw our application for a loan under the Advanced Technology Vehicle Manufacturing Loan Program. We believe that our manufacturing expansion needs in the United States will be adequately funded under the existing grant we received under the DOE Battery Incentive."*

That could be seen as good news, yet in their filing prior (10-K) they said:

*"We intend to take advantage of U.S. government and state programs established to increase domestic investment in the battery industry", included in these programs was the 233 million ATVM loan.*

So why the sudden change of heart? The company recently announced it had to undergo a extensive recall program (mostly related to batteries in the Karma), that would cost the company 61 million dollars, while separately announcing a inventory write down of 15 million related to the matter. Added to this situation is the fact the company had a net loss of 125 million dollars last quarter, and only had 113 million remaining in cash, before finding some private investment to infuse 50 million more dollars into the company.

The answer lies in two words, "going concern", as in that is how the company sees itself in its latest filing.



This is basically a meg coupe on the station, where basically A123 is saying, "the race is to stay liquid until new orders come online early in 2013 is on", and there is no possible way the DOE is going to allow you to borrow money to develop advanced technologies, if you are filing "going concern" statements. Good luck to A123, you are officially on your own.



A123 PHEV Battery Pack

Disclaimer: the author is not a long position in A123



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Concepts

Fisher

Ford

General

Mercedes

Nissan

Renault

Tesla

Toyota

Unrecognized

# A few glitches for electric cars

Your fancy new green machine is parked in the garage, but how are you going to charge it up?

by Peter Valdes-Dapena, CNNMoney.com senior writer  
Last Updated: December 11, 2009 4:10 PM ET

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NEW YORK (CNNMoney.com) -- If you're looking forward to parking a brand-new electric car in your garage soon, be prepared to spend some money getting that garage in shape.

Electric cars like the Nissan Leaf and Chevrolet Volt ideally use special "quick chargers" that have to be hardwired directly into high-power lines.

Installing the chargers is not like putting in a ceiling fan. The equipment has to be fully approved, installed by a competent professional, and in most cases, a city or state inspector will have to approve it all.

You could plug your car into an ordinary wall socket, but not if you're in a hurry. Charging a Nissan Leaf would take up to 16 hours, and charging a Volt would take eight. With a quick charger, the job for either would be done in just a few hours. The Volt can also run on gasoline, but what's the point then of having an electric car?

## Working out the kinks

Last summer, BMW rolled out an experimental fleet of 450 Mini-e electric Mini Coopers in the Los Angeles and New York City areas.

Unfortunately, by the time the first cars were being delivered, the quick charger equipment had not gotten an official seal of approval from the consumer safety group Underwriters Laboratory, something that's required in many localities.

"It took us a little longer than we anticipated," said Rich Steinberg, BMW's director of electric vehicle operations.

Dr. Lyle Dennis, who lives in suburban New York and commutes to his medical practice in New Jersey, leased one of the Mini-e's and said it took about a month for him to finally



Nissan Leaf



Chevrolet Volt Quick Charger

## 6 most efficient cars and trucks



"The people in the [electric car] community, they certainly know about the problem," he said, "but they're also the ones that are the most excited about electric cars."

Dennis, for instance, runs two popular electric car blogs — gm-volt.com and allcarselectric.com — in his spare time.

But the broader market of car buyers are likely to be turned off by any additional hassles, said Charlie Vogelheim, executive editor of intelchoice.com. "They all become detriments to making the sale," he said. "That's the type of thing that slows it down going into the mainstream."

Cars like the Chevrolet Volt and Nissan Leaf, which are expected to hit the market late next year, aren't expected to sell in large numbers, and they probably won't be profitable for years, but they're key for good public relations. The media and the general public will be watching and waiting to see how well they're received.

### Laying the lines for acceptance

Nissan and GM have been working with city and state governments to prepare them for the arrival of electric car so their customers don't hear, "You need your what inspected?" when they call city hall.

Both automakers are also working on public infrastructure for electric cars. But they admit that parking lot charging stations are more important for creating public acceptance of electric cars — to do away with worries about running out of juice -- than for actual use.

"We believe that 80% of charging is going to happen at home and at the workplace," said Mark Perry, director of product planning for Nissan.

How little setbacks, problems and hassles will affect public acceptance of electric cars ultimately depends on how the auto companies handle these issues as they arise, said Bianco, but he sees change coming no matter what.

"Little setbacks will not be enough to hold back the tide of people who really want these cars," said Bianco ■

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Solyndra, the solar energy company that went bankrupt after receiving a loan guarantee from the Department of Energy, "may be trying to abandon toxic waste," according to CBS San Francisco. This discovery was three months after the same news team discovered the company was discarding "millions of dollars worth of brand new glass tubes," which were purchased by taxpayers from a German company (a company, by the way, to whom the failed "green company" still owes \$ million dollars).



The local news reports that the "next phase of the company's liquidation" process includes discarding "the heavy metals left inside the building that were used to make the panels." The news team found "discarded buckets half filled with liquids and barrels labeled "hazardous waste" in one of the firms' buildings in Milpitas where the cleanup "is in limbo, because Solyndra doesn't want to pay." It seems that this company is not very responsible with taxpayers' money or with the environment.

The story continues, "The building's owner...claimed in court documents, 'there may be serious environmental, health and safety issues' at the premises, which include include, 'numerous containers of solvents and chemicals...and processing equipment contaminated with lead.'"

The failed green company had a \$535 million loan guarantee to produce solar panels and received a \$25.1 million tax break from California's Alternative Energy and Advanced Transportation Financing Authority before filing for bankruptcy. Rep. Joe Barton, a member of the House Energy and Commerce Committee, "expressed incredulity over the fact that a federal bankruptcy judge would approve \$400,000 in bonuses for executives at the failed company."

In a trip to the facility, President Obama declared that "companies like Solyndra are leading the way," a year before they declared bankruptcy in 2011.

### Is Green Stimulus Appropriate?

In yet another instance of President Obama making opponents, he called those who do not support yet more failed green stimulus in favour of drilling for domestic oil, "Flat Earthers," during a speech at a college in Maryland in March, 2012. President Obama said, "We've heard this kind of thinking before. Let me tell you something. If some of these folks were around when Columbus set sail, they must have been founding **members of the Flat Earth Society**," he continues, "...I guess they like gas guzzlers. They think that's good for our future. We're trying to move towards the future, they want to be stuck in the past."

Respectfully, it is not about being "stuck in the past" and it is not about "hating the environment", it is about exploring green alternatives while using the plentiful resources available in America. Throwing money at failing companies is not working.

America's economic meltdown is being pushed forward by the administration that has repeatedly stated that the high cost of gas is better for the environment. It is an effort to "nudge" Americans

...000 by vehicle in the world, the majority of which is assembled at a European auto plant?



Two weeks ago Republican Sens. Charles Grassley of Iowa and John Thune of South Dakota asked [Energy](http://nlpc.org/category/keywords/department-energy)

<http://nlpc.org/category/keywords/department-energy> Secretary Steven Chu [those](http://www.grassley.senate.gov/news/article.cfm?customer1_dataPageID_1702-10148) and some other pointed questions

[http://www.grassley.senate.gov/news/article.cfm?customer1\\_dataPageID\\_1702-10148](http://www.grassley.senate.gov/news/article.cfm?customer1_dataPageID_1702-10148) about his department's decisions, in granting a \$529 million taxpayer loan guarantee to [Fisker Automotive](http://nlpc.org/category/keywords/fisker) (<http://nlpc.org/category/keywords/fisker>), a luxury electric car manufacturer.

The [politically connected automaker](http://nlpc.org/stories/2011/10/24/was-always-behind-fisker-funding-fiasco) (<http://nlpc.org/stories/2011/10/24/was-always-behind-fisker-funding-fiasco>) has stumbled a number of times in delivering its six-figure Karma to market, with two recalls related to battery defects, an [investigation](http://nlpc.org/stories/2012/01/12/fisker%E2%80%99s-private-raisers-face-sec-investigation) (<http://nlpc.org/stories/2012/01/12/fisker%E2%80%99s-private-raisers-face-sec-investigation>) of its top venture capital raisers, and [layoffs of](http://nlpc.org/stories/2012/02/08/many-unanswered-questions-surround-fisker-layoffs) dozens of "green jobs" (<http://nlpc.org/stories/2012/02/08/many-unanswered-questions-surround-fisker-layoffs>) that had been [bragged about](http://www.wired.com/autopia/2000/10/fisker-delaware-factory/) (<http://www.wired.com/autopia/2000/10/fisker-delaware-factory/>) by the Obama administration.

The senators questioned the wisdom of extending the loan – which has now been suspended after issuance of \$193 million because of Fisker's troubles – in the first place.

The statute which created the (Advanced Technology Vehicles Manufacturing) program did not specify a retail price range for vehicles that are financed by Federal dollars, but it would seem questionable how financing \$100,000 luxury class automobiles would be the best use of taxpayer money," the senators wrote in a [letter to Chu](http://www.grassley.senate.gov/about/upload/2012-04-20-CEG-BRT-to-DOE-Fisker.pdf) (<http://www.grassley.senate.gov/about/upload/2012-04-20-CEG-BRT-to-DOE-Fisker.pdf>), dated April 20. "The Department of Energy appears to have decided otherwise."

The senators then asked a series of questions which sought to "bring

[law-firm-advised-failed-fisker-loan](#)) to provide legal advice, conduct due diligence, and review documents for the loans to Fisker and to Ford Motor Company.

According to data compiled by the Center for Responsive Politics, employees of the law firm gave \$199,944 to Sen. Barack Obama for his 2008 presidential campaign, and over the last three congressional election cycles (two cycles for the presidency, including this year), Debevoise staff members have donated \$746,535 to Democrat candidates and political committees, including \$284,420 to the Obama campaign. Debevoise's media relations manager, Suzanne Elio, is a former Democratic National Committee fundraiser, and top lawyer David Rivkin reportedly served on President Obama's National Finance Committee, even hosting a fundraiser for presidential candidate Obama in his home in 2007.

Maybe Debevoise staffers have "technical" expertise too.

Sens. Grassley and Thune could ask a few other questions also. For example, did top investors in Fisker like co-owner [Kleiner, Perkins, Caufield and Byers](#) (<http://nlpf.org/category/keywords/kleiner-perkins>) receive special consideration because its employees donated \$2.6 million to candidates and political action committees, mostly to Democrats? And was Fisker granted favor because KPCB [spent \\$50,000 per quarter throughout 2009 and 2010 lobbying Congress](#) (<http://nlpf.org/stories/2012/02/14/integrity-fisker-equity-fundraisers-questioned>) – in addition to Fisker's expenditure of \$480,000 for lobbying of Congress, the White House and the Departments of Energy and Defense to seek funds through DOE's loan program?

The senators also might ask about the reputation of the private capital raisers for Fisker, [Advanced Equities](#) (<http://nlpf.org/category/keywords/advanced-equities>). Its primary partners, Keith Daubenspeck and Dwight Badger, have been accused of "foisting junky startups on investors" and are now the subjects of a [Securities and Exchange Commission investigation](#)

attention to plans to produce a less expensive vehicle, the Atlantic, for an approximate retail price of \$50,000.

This complaint misses the mark in several respects. First, both manufacturers plan to start with high end vehicles and then quickly move to more affordable product lines.” <http://www.thehill.com/blogs/contributors/2012/02/22/2012-gm-tesla-hum-energ department-electric-car-loan-subsidy-to-fund-ford> Spokesman Dan Leitnikow, also referencing a \$465 million loan to EV newbie Tesla.

But \$50,000 a car is not exactly accessible for low-income consumers, or the even broader 99 percent. The [Chevy Volt](http://www.chevy.com/chevy/volt) (<http://www.chevy.com/chevy/volt>), which retails for \$41,000 before a \$7,500 buyer tax credit, has sold to customers (and [not very many of them](http://www.autoblog.com/2012/05/03/chevy-volt-subsidy-to-1-66-million-leaf-subsidy-to-1-170) (<http://www.autoblog.com/2012/05/03/chevy-volt-subsidy-to-1-66-million-leaf-subsidy-to-1-170>)) who on average earn \$170,000.

Corporate cronyism, fudgy government numbers, and subsidies of the wealthy – a lot to explain for Steven Chu’s Department of Energy.

*Paul Chesser is an associate fellow for the National Legal and Policy*

assembly workers are [sighted for five weeks](#)

<http://www.plugins.com/chevy-volt-production-unmated-5-weeks-ago-basor-exceeded-demand-12561.html>) (and more this summer) because demand for its strongly hyped [electric car](#)

<http://nlpc.org/category/keywords/electric-car> is weak, the prospects for its chief rival – [Nissan's Leaf](#) (<http://nlpc.org/category/keywords/nissan-leaf>) – are shaky at best.

Nissan North America, Inc. – a subsidiary of its Japanese parent – is the beneficiary of a \$1.4 billion Advanced Technology Vehicle Manufacturing [grant](http://go.energy.gov/?projects=nissan-north-america-inc) (<http://go.energy.gov/?projects=nissan-north-america-inc>) from the U.S.

[Department of Energy](#) (<http://nlpc.org/category/keywords/department-energy>), to convert a plant in Smyrna, Tenn. to produce the Leaf and batteries for it. The project's promoters say the alterations will lead to 1,300 new jobs, enabling Nissan to produce up to 150,000 Leafs and 200,000 battery packs per year, which will lead to the all-important avoidance of 204,000 tons of carbon dioxide emissions – or so they say.

But there's just one problem: Sales of the Leaf are not much better than the Volt's have been, and lately have been much worse. [In 2011](#)

<http://www.bloomberg.com/news/2012-01-04/gm-s-chevy-volt-misses-2011-sales-target-as-safety-probe-goes-on.html>) Chevrolet sold 7,671 of its plug-in Volt, whose range is extended with the help of a small gasoline tank. Nissan sold 9,674 of the purely electric Leaf last year. So far through the end of March this year GM has delivered 4,095 Volts, while only 1,733 Leafs have been sold.

So if demand isn't strong enough to keep a GM line running to build the Volt, how can the current level of sales for the Leaf justify the enormous plant investment Nissan is making in Tennessee? [USA Today reported](#) (<http://content.usatoday.com/communities/driveron/post/2012/03/electric-cars-chevrolet-volt-fisher-karma-nissan-leaf/1>) a few weeks ago that as gasoline prices reach \$4 per gallon, electric vehicles still "face dark days." Industry expert LMC Automotive predicts EV sales will remain below 1 percent through 2017.

Why would this be? Because even with billions of dollars in "investment"





consumers. But the Leaf is all-electric – no juice, no go, which may be a big reason the Volt has inched past it in sales recently. One EV enthusiast [had to stop and recharge his Leaf four times](http://nlpic.org/stories/2011/12/20/nispayers-leaf-four-recharging-stops-needed-go-180-miles) (<http://nlpic.org/stories/2011/12/20/nispayers-leaf-four-recharging-stops-needed-go-180-miles>) to travel 180 miles last year. Besides the facts that range is reduced even more [by using heating and air conditioning](http://nlpic.org/stories/2011/11/10/nissan-leaf-fails-real-life-test-miserably) (<http://nlpic.org/stories/2011/11/10/nissan-leaf-fails-real-life-test-miserably>), or by living on inclines, there is the issue that you [can't even depend on its battery gauge](http://nlpic.org/stories/2011/11/17/hollywood-liberals-love-ev-evorrom-see-not-so-much) (<http://nlpic.org/stories/2011/11/17/hollywood-liberals-love-ev-evorrom-see-not-so-much>) (the equivalent of a fuel gauge in a gas-powered car).

I am ready to turn over a new Leaf – my own,” [wrote](http://www.jewishjournal.com/rob_eshman/article/may_2011_nissan_schindra_20110506/) [http://www.jewishjournal.com/rob\\_eshman/article/may\\_2011\\_nissan\\_schindra\\_20110506/](http://www.jewishjournal.com/rob_eshman/article/may_2011_nissan_schindra_20110506/) Rob Eshman, editor-in-chief of The Jewish Journal of Greater Los Angeles.

While Nissan CEO [Carlos Ghosn](http://nlpic.org/category/people/carlos-ghosn) (<http://nlpic.org/category/people/carlos-ghosn>) (pictured) would obviously love to see sales of the Leaf take off, he has said in so many words) that government subsidies [are the reason](http://nlpic.org/stories/2011/10/24/nissan-ever-promises-record-sales-long-government-credits-continue) (<http://nlpic.org/stories/2011/10/24/nissan-ever-promises-record-sales-long-government-credits-continue>) for his pursuit of EV technology, rather than successes based upon qualities such as value, styling, safety rankings, or popularity with the purchasing public.

It does not matter if, for example, Portugal stops the incentives, as long as other countries like the United States continue to support,” Ghosn [told Reuters in October](http://www.reuters.com/article/2011/10/23/reunit-dUSA6E1LK2G20111024) (<http://www.reuters.com/article/2011/10/23/reunit-dUSA6E1LK2G20111024>). “If countries like France, Japan and the UK support and then China, that is about to start to support, that’s fine.”

The Brazilian-born Frenchman, who also chairs Renault, also does not hide the fact that he supports government control of markets and its attempts to stimulate technologies, no matter the cost.

“We must diversify the energy mix used to fuel our vehicles,” Ghosn [wrote last month](http://www.forbes.com/sites/joannmuller/2012/03/14/carlos-ghosn-three-ways-car-makers-can-save-the-world/) (<http://www.forbes.com/sites/joannmuller/2012/03/14/carlos-ghosn-three-ways-car-makers-can-save-the-world/>) for *Forbes*. “Petroleum-based fuels now account for 96 percent of the world’s automotive energy mix. By mandating targets and requirements at the level of the state, we can increase the mix of renewable fuels.”

And, obviously, he believes in the state’s expenditure of billions of dollars in EVs. At this week’s New York International Auto Show, he [repeated his](#)

versus the extra cost of the EV. That is a dubious assumption, since after that amount of time all – or a lot of – the depleted battery pack will need to be replaced. Time will tell, but if like most batteries it needs entire replacement, the cost is likely to exceed \$30,000.

<http://www.autoblog.com/2011/08/16/cost-to-replace-ev-batteries-how-to-2012-02-23-04/>

Nissan disputes that [total lifetime cost] of course. But is it worth risking the unknown for a vehicle that is only capable of traveling much fewer miles than would an equivalent gas-powered car such as the Nissan Versa or Chevy Cruze?

Got that that matters to Ghosn, since in his view, the purpose of the automobile business is to serve the collective through the manipulations of government.

We have a social responsibility to ensure that this industry grows sustainably," he wrote in his *Forbes* piece, "and if we uphold our responsibility, we will increase the quality of life for everyone on our planet."

*Paul Chesser is an associate fellow for the National Legal and Policy Center.*

to (the richest green-billionaires 2012/) have received billions of dollars in taxpayer subsidies for their clean technology companies, after they spent hundreds of thousands of dollars for political campaigns and lobbying.



Two of the moguls, [Elon Musk](http://www.forbes.com/profile/elon-musk/) (<http://www.forbes.com/profile/elon-musk/>) and [Vinod Khosla](http://www.forbes.com/profile/vinod-khosla/) (<http://www.forbes.com/profile/vinod-khosla/>) (in photo), are technology pioneers based in California with net worths of \$2 billion and \$1.3 billion, respectively. The third, Christy Walton, is the widow of the late John Walton who was an heir to the Walmart fortune. Forbes says she is the world's richest woman" is worth \$24.8 billion.

Significant percentages of Musk's and Khosla's value are derived from "eco-friendly" holdings. Musk's main green investments are in [Tesla Motors](http://www.tesla.com/) (<http://www.tesla.com/>), an electric automaker, and [SolarCity](http://www.solarcity.com/) (<http://www.solarcity.com/>). Among Khosla's clean-tech assets are [KIOR](http://www.kior.com/) (<http://www.kior.com/>) and [Gevo](http://www.gevo.com/) (<http://www.gevo.com/>), both biofuels companies, and [Calera Corporation](http://www.calera.com/) (<http://www.calera.com/>), a company that uses captured carbon dioxide in other products like cements. According to Forbes, Musk's "green" net worth is \$1.2 billion and Khosla's is \$350 million.

Nearly all of Walton's wealth is from Walmart, but the finance magazine attributes \$570 million of her riches to investment in [First Solar](http://www.firstsolar.com/) (<http://www.firstsolar.com/>), which John Walton [infused with \\$150 million](http://www.greentechmedia.com/articles/read/when-first-solar-wasnt-so-hot/) (<http://www.greentechmedia.com/articles/read/when-first-solar-wasnt-so-hot/>) in 1999 when he took a seat on the company board. His estate unloaded much of its First Solar stock in mid-2009.

Considering the vast resources at the disposal of the three, you'd think taxpayer assistance would not be necessary to keep their green companies afloat. Nevertheless Musk and Khosla, and to a lesser degree Walton (at least as an active participant), have sought government funds for their initiatives.

Musk, best known as [co-founder of the company that became PayPal](http://www.paypal.com/)

the Advanced Technology Vehicles Manufacturing loan program, the Promoting Electric Vehicles Act, and the Recovery Act. Tesla received a [3.465 million loan guarantee \(https://ipo.energy.gov/projects-tesla-motors\)](https://ipo.energy.gov/projects-tesla-motors) from DOE's ATVM program.

Musk is also a generous political donor, mostly to Democrats, although his investments and giving are equally diverse. Also the CEO of a space exploration company, Musk donated \$290,000 to political candidates and the major parties from 2008 through 2012, which included \$66,200 to the Democratic National Committee, \$34,400 to the Democratic Senatorial Campaign Committee, and \$63,500 to the National Republican Congressional Committee. His presidential candidate was Barack Obama, giving \$2,300 for his 2008 campaign and \$5,000 for the 2012 cycle. Besides Musk, a former Tesla director, Steve Westly, [raised hundreds of thousands of dollars \(http://www.opensecrets.org/pres08/bundlers.php?id=N00009638\)](http://www.opensecrets.org/pres08/bundlers.php?id=N00009638) for both of President Obama's campaigns [as a bundler \(http://www.opensecrets.org/pres12/bundlers.php?id=N00009638\)](http://www.opensecrets.org/pres12/bundlers.php?id=N00009638).

Khosla's ventures engaged in heavy lobbying in recent years also. KIOR spent \$150,000 from 2010 through 2012; Gevo spent \$360,000 from 2009 through 2012; and Khosla Ventures spent \$70,000 in 2008. His lobbyists promoted the government use of biofuels, setting of renewable fuel standards, and incentives for those fuels. Also, Khosla's Calera Corporation spent \$540,000 from 2008 to 2011 lobbying Congress about Recovery Act programs "related to carbon (dioxide) conversion technology."

Khosla's political contributions overwhelmingly favored Democrats between 2008 and 2012, although he gave nearly equally to President Obama (\$4,800) and GOP nominee Sen. John McCain (\$4,600) in 2008. So far he has donated \$2,500 for the president's re-election. Overall he has given \$303,400 to political candidates and the Democratic Party the last three election cycles, which included \$30,800 to DNC, \$58,900 to DSCC, and \$65,000 to the Democratic Congressional Campaign Committee.

microsystems, his bets on renewable energy have been spotty, according to Robert Rapier of Consumer Energy Report. He is accused of often hyping technologies which have been worked on for years but he promotes as "new," such as earlier investment Range Fuels, only to see them fail.

"Most of what he considers 'vibrant and new' has been worked on for many years at big companies around the world – but they generally don't follow the 'hype, hype, hype' model so you don't hear about them," Rapier wrote <http://www.consumerenergyreport.com/2011/01/27/vinod-khosla-and-the-fermentation-fermentation-debate/> in January 2011. "And in many cases, the research ended because the path led to 'not commercially viable.'"

Tellingly, Rapier says Khosla is known to "reinvent the wheel on other people's dimes."

As for First Solar and Christy Walton, her role appears to be more passive and not active in leadership. She is not a director <http://www.firstsolar.com/en/About-First-Solar/Corporate-Governance#board-of-directors>. However, other Waltons are seeking a larger role <http://www.thestreet.com/story/11404608/1/wal-marts-waltons-seeking-more-active-role-at-first-solar.html> on the board as the family as is the largest investor, and must not be very happy with the company's stock price collapse. First Solar is the beneficiary of more than \$3 billion in DOE loan guarantees <http://nlpe.org/stories/2012/04/18/taxpayers-reward-executives-failure-green-jobs-are-lashed> for three of its solar projects in the West.

That politically connected, wealthy "Green" investors see their projects enhanced with billions of taxpayer dollars, redistributed by the Obama administration, should not surprise anyone any more. After all, the rich get their electric cars (<http://nlpe.org/category/keywords/electric-car>) and support systems subsidized, their start-up schemes <http://nlpe.org/category/keywords/smith-electric-vehicles> stimulated, and their privileges secured (<http://nlpe.org/stories/2012/04/18/first-solar-fund-environmental>).

## Staff Shortages Stymie Effort to Spend Stimulus Funds on Energy

TALLEY

WASHINGTON--The Department of Energy's sector general on Wednesday warned that staffing shortages and other internal weaknesses increased the risk of fraud and could delay the agency's efforts to spend about \$37 billion in economic-stimulus funds.

Sector General Gregory Friedman said he did not find any examples of waste, with only about 5% of the funding spent. But the report came at a sensitive time, with the Obama administration seeking even more stimulus money for the renewable energy and efficiency programs.

The report came as the department announced it would offer a \$245 million loan guarantee--the highest so far this year--to help a joint venture between an ADA-ES Inc. unit and private-equity firm Energy Capital Partners build a factory to produce mercury-emissions control technology for coal-fired power plants. The announcement sent the stock up more than 21% to \$4 in early afternoon trading for ADA-ES Inc., the parent of Red River Environmental Products LLC, which was offered the guarantee.

The company is planning to build the facility in Coushatta, Red River Parish, in Louisiana. Construction of the plant will create 500 jobs and will provide 70 jobs once the factory is operational, the Energy Department said.

In his report examining the Energy Department's ability to manage stimulus dollars, Mr. Friedman said the agency had made "substantial progress" in identifying risks and strengthening oversight of projects, but it found department offices were still too short-staffed and undertrained to handle such a massive increase in funding authority. He added that the agency faced "daunting" odds in recruiting adequate monitoring and oversight staff.

The department has allocated nearly half of the funding.

In responses to the report, DOE officials concurred with most of the criticisms and said they were working to fix the problems. Under Energy Secretary Steven Chu, the department has sought to speed up spending decisions.

The report noted, however, that cost overruns and schedule delays had been "a recurring problem" at the agency and suggested that more trouble might lie ahead if the agency moved too quickly in spending stimulus money. The report said that one office--charged with spending \$4.5 billion to modernize the nation's electrical grid--had hired only a third of employees called for under its staffing plan. The Energy Efficiency and Renewable Energy office--responsible for overseeing \$17 billion in stimulus funding--had hired half of the

SMALL BUSINESS | DECEMBER 15, 2009

## Venture Capitol: New VC Force

By NEIL KING JR.

When tiny Fisker Automotive Inc. hit a financing glitch last year, threatening its plan to build a fancy gasoline-electric hybrid car in Finland, it turned to the U.S. Department of Energy.

The DOE had a bolder idea. Why not also step up the company's plans to develop a less-expensive model, and assemble it in a closed U.S. auto plant?

Within months, Vice President Joe Biden, the former senator from Delaware, was helping lure the embryonic car company to a shuttered General Motors Co. factory four miles from his house in Wilmington, right across the tracks from Biden Park. Soon, Fisker Automotive, a two-year-old business that has yet to sell a car, won loans from the federal government totaling \$528 million.

Fisker had joined a flock of other businesses seeking cash from the biggest venture capitalist of all, the U.S. government.

The DOE hopes to lend or give out more than \$40 billion to businesses working on "clean technology," everything from electric cars and novel batteries to wind turbines and solar panels. In the first nine months of 2009, the DOE doled out \$13 billion in loans and grants to such firms. By contrast, venture-capital firms -- which have long been the chief funders of fledgling tech firms, taking equity stakes in the start-ups that will pay off if they go public -- poured just \$2.68 billion into the sector in that time, according to data tracker Cleantech Group.

Thus, while much attention has been focused on the federal government's involvement in banking, Washington also is gaining sway in another swath of the economy. By financing clean-tech ventures on a large scale, the government has become a kingmaker in one of technology's hottest sectors.

Some young companies are tailoring their business plans to win DOE cash. Private investors, meanwhile, are often pulling back, waiting to see which projects the government blesses. Success in winning federal funds can attract a flood of private capital, companies say, while conversely, bad luck in Washington can sour their chances with private investors. The result is an intertwining of public and private-sector interests in an arena where politics is never far from the surface.

In Delaware, "We had five individuals beating the band -- the three members of the [congressional] delegation, the governor and the vice president," said the state's chief of economic development, Alan Levin. "We had in the vice president a secret weapon, except there is nothing secret about Joe Biden."

A spokeswoman for Mr. Biden said he made no direct appeals to DOE on Fisker's behalf before the loan was approved, though he did talk to the company several times afterward to put in a plug for his home state.

At the DOE, Matthew Rogers, who helps oversee the department's loans, said proposals are vetted by "deal teams" insulated as much as possible from outside pressure. "Lots of people can call the [energy] secretary, but that doesn't mean that any of that necessarily flows down to the deal-team level," he said.

hybrid roadsters and deliveries to all-electric three-wheelers that could go 120 miles on a charge. They are chasing \$25 billion in federal low-interest loans for a sector that has attracted less than a tenth that much in venture capital over the past five years, according to Cleantech.

"The existence of an 800-pound gorilla putting massive capital behind select start-ups is sucking the air away from the rest of the venture-capital ecosystem," said Darryl Stry, former head of marketing at Tesla Motors Inc., a San Carlos, Calif., company that got a \$365 million DOE loan in June to build high-end electric cars. "Being anointed by DOE has become everything for companies looking to move ahead."

Bright Automotive Inc. is still seeking anointment. Based in a small warren of offices outside Indianapolis, Bright looked set to take off in September 2008. Investors were poised to give it more than \$100 million to move ahead on a lightweight hybrid delivery van, and it had lined up major corporations as potential customers.

When the financial crisis hit in that same month, investors bowed out. Though a few have since tiptoed back, enabling Bright to build a prototype, its principal hope for now lies in the DOE, from which it is seeking a large loan to get under way.

"We are caught in this blender of historically new forces, somewhere between the public and private worlds," said Bright's chief executive, John Waters. Without a government loan, private investors are reluctant to jump in, he says, while the DOE loan team is wary of backing ventures that haven't already won significant support in the private sector.

The DOE acknowledges it looks to back companies that already have substantial private funding, with the hope that federal money will in turn attract more private investment.

Fisker, based in Irvine, Calif., got rolling two years ago with seed money from two of Silicon Valley's largest venture-capital firms, Palo Alto Investors LLC and Kleiner Perkins Caufield & Byers. They and some smaller investors put up nearly \$160 million to move Fisker's first car, called the Karma, off the design table and into early production. But to fine-tune the engineering and put it into full production, Fisker needed at least \$200 million more.

In December 2008, Fisker turned to the DOE's \$25 billion Advanced Technology Vehicle Manufacturing loan program, which Congress had funded to launch new, high-efficiency vehicles.

Fisker applied for about \$170 million to get the Karma rolling. It also put in a second application, hoping eventually to win financing to build a cheaper model, code-named the Kx, which the company didn't envision bringing to market until around 2015.

DOE officials and their advisers expressed strong interest in the Karma proposal, say people involved in the talks, but they were wary of the Kx. Its engineering remained vague, and Fisker was far from having a prototype.

By late spring, DOE was pushing ahead briskly on the Karma loan, say people involved in the deal. But the Karma presented a political challenge: It was already being assembled, under contract, at a plant in Finland. Though it used mainly U.S.-made components, so a federal loan would help U.S. parts makers, the boost for U.S. workers would be limited.

DOE then came to Fisker with a surprising proposal: Find a U.S. site to build the Kx, and DOE would agree to fund both projects together. Fisker could then start gearing up to make the Kx even before the Karma hit the market. Close advisers to Fisker said the issue of job creation had become key to officials within the administration.

"The government's interest sped it all up," said David Anderson, a partner at the Palo Alto Investors venture-capital firm, who followed the DOE process closely. "The government basically said, 'Let's make this happen sooner rather than later.'"

On June 1, GM said it was closing 14 plants, including the one in Delaware. This gave fresh urgency to the DOE's



GM's Delaware factory, called the Boxwood Road plant and dating from 1947, once employed 5,000. It was the last auto assembly plant in the Northeast. State officials and politicians were determined to keep it alive.

In the middle of August, they learned the plant had drawn interest from Fisker. CEO Henrik Fisker came to see it and dropped by the office of a Delaware senator, Tom Carper, a Democrat. The visit unleashed a flurry of activity. Gov. Jack Markell, also a Democrat, quickly called an old friend at Kleiner Perkins to check on Fisker. "Basically, we wanted to know, 'Are they for real?'" said Mr. Levin.

Kleiner Perkins itself has political roots. A leading partner, John Doerr, sits on President Barack Obama's economic advisory board, and another partner is former Vice President Al Gore.

The DOE, in August, hadn't yet ruled on Fisker's loan request. Delaware's governor and congressional delegation began peppering U.S. Energy Secretary Steven Chu with calls on Fisker's behalf. They also had repeated discussions with Vice President Biden and his staff, according to Mr. Levin and several others.

In early September, Gov. Markell told Fisker that if it occupied the shuttered GM plant it would get an array of state incentives worth up to \$22 million, including \$9 million in cash for utilities. He promised to buy the first car off the line.

On Sept. 17, he ran into Mr. Chu at an event in Pennsylvania. "I know, I know -- Fisker," Mr. Chu said as soon as he saw him, according to the governor, who said Mr. Chu told him he was "hearing from everyone in Delaware."

Five days later, Mr. Chu announced the government had signed a provisional agreement to lend Fisker nearly \$170 million to complete engineering of the Karma, as well as \$360 million to develop the less-expensive model Kx, which the company then began to call the Nina. Fisker still plans to assemble the Karma in Finland but will make the Nina in Delaware. Mr. Chu said the DOE funding would help reduce dependence on foreign oil as well as create "thousands of new American jobs."

People familiar with the loan say the government based the amount partly on its assessment that the Nina, which will sell for about \$40,000 after government tax rebates, could draw world-wide annual sales of around 130,000 -- nearly twice Fisker's own projection.

Mr. Fisker, a former designer of sleek sports cars for BMW and Aston Martin, said he is sure his company would have won DOE funding without the Delaware politicians' support but credits it with speeding the approval. He added that Fisker picked the Delaware plant because it made economic sense.

Though its first model, the Karma, won't be available for test drives for months, Fisker says more than 1,500 potential buyers have put down refundable deposits on the car, expected to sell for \$88,000.

On Oct. 27, about a month after the DOE approved loans to Fisker, its executives and Delaware politicians gathered in Wilmington for an announcement. In the morning, Mr. Biden played host to United Auto Workers brass for breakfast at his house near the Boxwood Road plant.

Then they joined hundreds of auto workers and local dignitaries at the factory. Gov. Markell announced Fisker was buying it from the post-Chapter 11 remnant of GM called Motor Liquidation Co. for just \$18 million. The deal includes a high-end paint facility and other equipment that industry experts say would cost more than \$300 million to replace.

In a rousing speech, Mr. Biden recalled how every election year, including his first in 1972, "I would stand here at this gate and shake hands at every shift." He told of many "long talks" he said he had had with Mr. Fisker. He called the project "a metaphor for the rebirth of the country."

## Car Money

Investments in U.S. advanced vehicles this year, by:

### Energy Department



### Private venture capitalists



Note: Through September  
Source: Energy Department, Cleantech Group

gnitaries behind a curtain for their first  
ty car body, bright red, but with no dr  
beautiful car," he said.

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## Small Players Vie for 'Green Car' Loans

By LESLIE WAYNE

Published: December 2, 2008

PHOTO: Carol Battershell, a senior adviser in the Energy Department's energy-efficiency division, at a conference in Washington Monday on the \$25 billion program to develop fuel-efficient vehicles. (PHOTOGRAPHS BY STEPHEN CROWLEY/THE NEW YORK TIMES)

### WASHINGTON

Detroit's automakers are focused this week on convincing Congress to provide them \$25 billion in federal aid.

But there is another \$25 billion auto industry loan program, set up by the Department of Energy to quicken the development of fuel-efficient cars.

Because it is open to any company with a promise and a plan to make more fuel-efficient cars, it has set off something of a gold rush, as a number of companies besides the Big Three, including Silicon Valley firms and old-line Detroit auto suppliers, angle for a piece of the program.

Many of the companies flocked to Washington for a meeting Monday sponsored by the Energy Department to review the rules governing the direct loans, which the government is expected to start making in coming weeks.

"The government is saying, 'Here, come and get it,' and we will," said Curt Brainard, a spokesman for EcoMotors International, a Troy, Mich., company that is developing a two-stroke diesel engine that it says will allow compact cars to get 100 miles to the gallon. "It

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In addition, Tesla Motors, a privately held company in San Carlos, Calif., has applied for \$400 million in two loans. One would be used to develop an advanced battery and power train for the company's electric car -- currently Tesla makes an electric roadster with a \$109,000 price tag. The other loan would be to develop a lower-priced midsize sedan, the "Model S," using the same technology.

Another application has come from XP Vehicles, based in San Francisco, which is seeking \$40 million to develop two electric cars, a two-seat runabout and a four-seat mini utility vehicle.

Scott Redmond, chairman of XP, said the government loans were an important source of financing, given the economy.

"Venture capital money is frozen and that has put us in dire straits," said Mr. Redmond, who added that it cost "hundreds of millions" to develop a new car. "We have a glut of customers, we just don't have enough credit. Financing is dead. We are facing the same problems as the Detroit companies. Everyone is really counting on this money." Lachlan W. Seward, director of the Advance Technology Vehicles Manufacturing Loan Program, said that five applications had been received to date, but declined to disclose details.

The three Detroit automakers have, so far, applied for at least \$22 billion of the program's money, according to Michael Carr, counsel to the Senate Energy Committee, which initiated the legislation. Mr. Carr, who had been briefed on the loan program's status, said he was concerned that smaller companies might be left to fight over an disproportionately small share. The deadline for the first group of loan applications is Dec. 31.

Large auto suppliers also attended the briefing Monday, including representatives of Tenneco, Delphi, Visteon and Goodyear. Many asked questions about environmental impact studies, and requirements that companies meet criteria regarding their financial strength to receive a loan.

The Energy Department rules favor domestic automakers and suppliers. Manufacturing facilities eligible for the loans must be in the United States, along with all engineering and retooling. Preference is also given for modernization of manufacturing plants that are more than 20 years old, and most of the foreign automakers' plants in the United States are more recent than that.

supporting the development of cars at least 25% more fuel-efficient than the average car sold in 2005.

But if you spend the money it is applying for -- it would not give you a 25% improvement in fuel economy. It would fund the development of the Chevrolet Volt, an electric car that would be sold at a premium price. It would pay for development costs. Ford Motor, which has been working on converting three large plants that make large trucks and SUVs into smaller, more fuel-efficient cars.

# GM's Phony Bailout Payback

The company is setting the stage for another taxpayer shakedown

Nikhla Dalmia | April 27, 2010

GM CEO Ed Whitacre announced in a *Wall Street Journal* column last Wednesday that his company has paid back its government bailout loan "in full, with interest, years ahead of schedule." He is even running TV ads on all major networks to that effect—a needless expense given that a credulous media is only too happy to parrot his claims for free. *Detroit Free Press*' Mike Thompson, for example, advises bailout proponents to start "warming up their vocal chords" to jeer their opponents with chants of "I told you so."

But before belting out their victory aria, GM-boosters ought to hear the whole story—not just the fairytale version about Government Motors' grand comeback that Whitacre is peddling them.

Uncle Sam gave GM \$49.5 billion last summer in aid to finance its bankruptcy. (If it hadn't, the company, which couldn't raise this kind of money from private lenders, would have been forced into liquidation, its assets sold for scrap.) So when Whitacre publishes a column with the headline, "The GM Bailout: Paid Back in Full," most ordinary mortals unfamiliar with bailout minutia would assume that he is alluding to the entire \$49.5 billion. That, however, is far from the case.

Because a loan of such a huge amount would have been politically controversial, the Obama administration handed GM only \$6.7 billion as a pure loan. (It asked for only a 7 percent interest rate—a very sweet deal considering that GM bonds at that time were trading below junk level.) The vast bulk of the bailout money was transferred to GM through the purchase of 60.8 percent equity stake in the company—arguably an even worse deal for taxpayers than the loan, given that the equity position requires them to bear the risk of the investment without any guaranteed return. (The Canadian government likewise gave GM \$1.4 billion as a pure loan, and another \$8.1 billion for an 11.7 percent equity stake. The U.S. and Canadian government together own 72.5 percent of the company.)

But when Whitacre says GM has paid back the bailout money in full, he means not the entire \$49.5 billion—the loan and the equity. In fact, he avoids all mention of that figure in his column. He means only the \$6.7 billion loan amount.

But wait! Even that's not the full story given that GM, which has not yet broken even, much less turned a profit, can't pay even this puny amount from its own earnings.

So how is it paying it?

As it turns out, the Obama administration put \$13.4 billion of the aid money as "working capital" in an escrow account when the company was in bankruptcy. The company is using this escrow money—government money—to pay back the government loan.

GM claims that the fact that it is even using the escrow money to pay back the loan instead of using it all to shore itself up shows that it is on the road to recovery. That actually would be a positive development—although hardly one worth hyping in ads and columns—if it were not for a further plot twist.

Sean McAlinden, chief economist at the Ann Arbor-based Center for Automotive Research, points out that the company has applied to the Department of Energy for \$10 billion in low (5 percent) interest loan to retool its plants to meet the government's tougher new CAFÉ (Corporate Average Fuel Economy) standards. However, giving GM more taxpayer money on top of the existing bailout would have been a political disaster for the Obama administration and a PR debacle for the company. Paying back the small bailout loan makes the new—and bigger—DOE loan much more feasible.

In short, GM is using government money to pay back government money to get more government money. And at a 2 percent lower interest rate at that. This is a nifty scheme to refinance GM's government debt—not pay it back!

GM boasts that, because it is doing so well, it is paying the \$6.7 billion five years ahead of schedule since it was not due until 2015. So will there be an accelerated payback of the rest of the \$49.6 billion investment? No. That goal has been pushed back, as it turns out.

In order to recover that investment, the government has to sell its equity. It plans to do that only when GM becomes a publicly traded company once again. GM was hoping to turn a profit by the end of 2010 and float an initial public offering this winter. However, GM Chief Financial Officer Chris Liddell, when queried about that timeline a few days ago, demurred. The offering will be made, he said, "when the markets and the company are ready."

(Take that, taxpayers!)

The reality is that there is no certainty that GM will ever be able to make taxpayers whole. Some analysts such as Center for Automotive Research's Sean McAlinden and Global Insight's George Magliano believe that it will—eventually. McAlinden maintains that this will happen when the company's market capitalization touches \$60 billion. (At GM's peak in 2000, this level was only \$57 billion.) This is a challenging but not an impossible goal—provided the economy does not dip into another recession, he maintains. Magliano too maintains that the company will be able to pay back taxpayers if the industry is able to ramp up annual vehicle sales from the current 8.5 million to 10 million in 2015.

captures 20 percent of these sales.

al Accountability Office, on the other hand, remains deeply pessimistic in a December report (which a more recent April report has said notwithstanding, despite media spin to the contrary) that: "The Treasury is unlikely to pay for its investment in Chrysler or GM, given that the companies' value has fallen so substantially more than they have in the past."

But surely it's premature for its media boosters to pop open the champagne about getting their story straight?

*Altmia is a senior analyst at Reason Foundation and a biweekly columnist. This column originally appeared at Forbes.*



# Chrysler steps on the gas and puts EVs, hybrids on hold

by Automotive News

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DETROIT--Chrysler Group has scaled back its ambitious plans for hybrids and electric vehicles and instead is placing its green bets on internal combustion engines that use Fiat technology.

[Automotive News](#)

As Chrysler slid toward bankruptcy in September 2008, it rolled out several hybrid and all-electric vehicles to bolster its green credentials in the eyes of the federal government.

Then-CEO Bob Nardelli put hybrids and electrics on the fast track under the umbrella of a separate division called ENVI and made alternative propulsion a centerpiece of Chrysler's survival strategy. The company, at the time owned by Cerberus Capital Management, showed off plug-in hybrid versions of the Chrysler Town and Country minivan and Jeep Wrangler and an all-electric sports [car](#) called the Dodge Circuit, designed with help from Lotus.

What a difference a change in management makes. Now, with Fiat input, Chrysler is wringing extra fuel economy out of the internal combustion engine wherever possible.

"When we made the alliance with Fiat, we had a lot more opportunity with fuel economy with lighter platforms and smaller engines," said Chrysler spokesman Nick Cappa. "The vehicles



Chrysler showed the Dodge Circuit EV at the 2009 Detroit auto show.

Previously associated with ENVI were technology (Credit: CBS) demonstration vehicles."

There are no plans to make production versions of those ENVI vehicles. The division was absorbed into Chrysler's powertrain operations.

Chrysler canceled plans to build a Two-Mode hybrid version of the Ram 1500. Two-Mode hybrid versions of the Chrysler Aspen and Dodge Durango SUVs went out of production in late 2008 just a few short months after they went into production.

Instead, Chrysler is pursuing a variety of fuel-saving technologies with Fiat. Fiat, which has been a leader in high-pressure diesel engine technology in Europe, is bringing its latest gasoline engine know-how to North America.

Fiat's 1.4-liter Fire engine will make its North American vehicle debut when the Fiat 500 minicar arrives here late this year. The MultiAir system improves fuel economy and reduces carbon emissions.

Fiat also is a leader in compressed natural gas, and Chrysler can tap into that, Cappa said. Fiat sold about 200,000 compressed natural gas cars and commercial vehicles in Europe last year.

The only all-electric vehicle now in Chrysler's plan is an electric Fiat 500, due to arrive in 2012. Chrysler is designing the powertrain for the Fiat electric and will remain the center of competence for electrics and hybrids.

Chrysler does plan a test fleet of 140 Ram hybrid pickups in 2011

Source: [Automotive News](#))

## naNation: \$250 Million Taxpayer-Funded 'Green' Energy Company Requires More Cash After Losing \$257 Million

11/22, in *Environmental Government: New World Order, Regime, Taxes*, by Sant Hill

Let me be perfectly clear, I promise to take money from people who don't vote for me and give it to those who do.



ite' excuse from the bankrupt Obama-supporting company should they not acquire more taxpayer cash. "And the failure to obtain incentives could materially and adversely affect our ability to expand our manufacturing capacity and meet planned production levels none of the company employees pass their chronic Liberal 'I'm entitled' behavior onto their kids... unless, of course, they want. See (see below).

**\$257 Million Loss, Taxpayer-Funded 'Green' Energy Company Needs More Cash**

...ing minority.

But none of that has stopped A123 Systems, which manufactures batteries for electric vehicles, from applying for another \$233 million in federal backing through the Energy Department's Advanced Technology Vehicle Manufacturing program, [according to its latest filing](#) with the Securities and Exchange Commission

"We have made a loan application under the Advanced Technology Vehicles Manufacturing Loan Program, or the ATVM Program, to support our continued manufacturing expansion," A123 said in the SEC filing. "Based on the amount of our grant award under the DOE Battery Initiative and the guidelines associated with the ATVM Program, we believe we will be permitted to borrow up to \$233 million under the ATVM Program."



Whether A123 meets that qualification is questionable. "Much of our planned domestic manufacturing capacity expansion depends on receipt of these funds [from the ATVM program] and other incentives," the company stated in its SEC filing, **"and the failure to obtain these funds or other incentives could materially and adversely affect our ability to expand our manufacturing capacity and meet planned production levels."**

The Energy Department did not return multiple requests for comment on A123's loan application.

Even if the company is eligible for the loan, however, it is in dire financial straits, and may be a shaky bet for an administration already plagued by a series of [Solyndra-esque](#) green energy flops.

According to its SEC filing, A123 is relying not only on further federal funding, but on its two largest clients, which together account for half of its business. One of those companies, Fisker Automotive, is also financially troubled.

"For the year ended December 31, 2011," its filing states, "revenue from our two largest customers, [Fisker](#) and AES Energy Storage, LLC and its affiliates, or AES, represented 26% and 24% of our revenue, respectively."

Fisker, which [received a \\$529 million loan](#) through the ATVM program despite conducting significant portions of its operations in Finland, delayed production of one of its models, and was forced to lay off 65 employees. A pair of U.S. senators is investigating DOE's decision to award its Fisker loan.

--snip--

**If I Wanted America To Fail, I'd Create An Economic Suicide Pact** (hat tip: Dennis)



Solyndra 'Green' executive: \$100,000+ in Obama donations and 20+ White House trips: [HERE](#)

Bankrupt-Bailed-Out-Government-Owned-Tax-Free-Overseas-Job-Outsourcing GE Tells American Business Owners, 'Stop Complaining About Big Government': [HERE](#)

Bankrupt-Bankrupt GE to spend \$30 billion as Obama administration continues to fund GE: [HERE](#)

Obama asks \$23 billion to fund treasury-bailed-out GE for black and red only: [HERE](#)

The U.S. Department of Energy's inspector general was sound asleep when Secretary Steven Chu and his crew of federal venture capitalists (using taxpayer money) were dishing out \$500 million in 2009 to the Solyndra Corporation to make solar panels. Solyndra went bankrupt and is now out of business. Dr. Chu's merry band also gave federal loans of various sizes to half-a-dozen other "alternative energy" companies that are now in bankruptcy or have shut down production.

It was left for the Treasury Department's inspector general tell us the full story of the Solyndra caper. The IG has revealed that Treasury's financial experts knew nothing of it until "about a day" before the DoE issued a press release announcing that it was approving the loan. It seems that this rushed review was driven by Vice President Biden's schedule, for he was to appear at a ceremony at the Solyndra plant and the loan needed to be in place in order to validate his visit.

In even the short time they had it, Treasury's financial experts raised concerns about the loan. The IG found no evidence that these had been addressed by the DoE. Solyndra's poor debt-to-equity ratio was one of the concerns. In its final days, the Bush Administration had declined a Solyndra loan request because of its shaky financial situation.

At the DoE there is no record of an inspection by its inspector general of any of these reckless capital ventures by Dr. Chu, a physicist with no business experience.

He and his band have also thrown money at implausible electric automobile projects. One beneficiary, the Fisker Co., has been so

A conference of any good size takes much planning, but sending several people on six planning trips to Las Vegas at a cost of \$130,000 is stretching the point, to say the least. A well-run presidential campaign would send one advance person out to lay the basic plans, then do all the rest by telephone and e-mail. He or she would return just before the candidate's visit to make sure everything was in order. Another reason for a second trip would be to work on drumming up a large crowd for the candidate's event, if one were needed. In this case, there was no crowd to drum up. All were GSA employees.

The GSA's Obama-appointed Administrator, Martha Johnson, took office in February 2010. Was she not told of plans for an event of this magnitude? If not, surely she must have heard about it afterward and, if so, why did she not inquire as to costs and accomplishments of it? When she took office she said ethics is "a big issue for me." Not big enough as things turned out. Later that year she proclaimed the agency's new security slogan, "If you see something, say something." Apparently, no one said a word to her or the IG.

The story erupted after the IG's report was made available. Last week, Ms. Johnson, after firing two deputies, made a hasty exit (with a shove from the White House) and thundered her outrage about the conference. The IG's report had noted that the GSA had "followed neither federal procurement laws nor its own policy on conference spending."

Several questions remain unanswered. Why was it necessary to hold the conference in an expensive resort hotel when the GSA likely has a building suitable for such a regional conference? Why did not someone in the White House interested in covering the President's flanks not spot this and ask questions? The conference was widely

## Are you satisfied with this award? Yes or No

No votes have been cast for this award yet.

**Award Description:** Support to the offices of the Loan Guarantee Program and the Chief Financial Officer.

**Project Description:** Began analysis of potential clients that might seek Loan Guarantees under the program to be established by the LGPO in response to the "American Recovery and Reinvestment Act of 2009". Lead efforts to complete the Agency Wide Recovery Plan (AWRP) and Program-Specific Recovery Plans (PSRPs) by the May 15 deadline. Lead and participate in the review process for Project Operations Plans (POPs) and RSRPs. Develop the AWRP beyond the May 15 submission and present ad-hoc summaries and data analyses as necessary. Began conducting market-based analyses and developing recommendations for the award of auto loans under the ATVM Program. Provide specialized advice on technological, operational, economic and consumer trends in the automotive industry, successfully and expeditiously analyzing the loan applications, performing industry and market analyses on the projected impact of individual projects, and developing recommendations for the award of the loans. Support the Chief Financial Officer in the administration of the Loan Guarantee Program and its administration of the authority granted under the American Recovery and Reinvestment Act of 2009 (the Recovery Act). The contractor will provide Financial, Budgetary and Economic Analysis and Program Management Support for the implementation of this initiative. Support the Loan Guarantee Program office (LGPO) of the DOE in its analysis of potential clients that might seek Loan Guarantees under the program to be established by the LGPO in response to the "American Recovery and Reinvestment Act of 2009". The LGPO requires the services of a financial advisor to prepare a draft solicitation based on the findings from the survey covered in Subtask #59. Began providing Financial, Economic Analysis, and Program Management Support for the implementation of this initiative.

**Jobs Summary:** Hired 12 consultants and one new employee to perform initial activity. (Total jobs reported: 13)

**Project Status:** Less Than 50% Completed

This award's data was last updated on May 15, 2009. Help expand these official descriptions using the wiki below.

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TECHNOLOGY & MANAGEMENT SERVICES, INC  
GAITHERSBURG, MD 20879

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### Place of Performance

996 L'Enfant Plaza North, SW  
Suite 1500  
Washington, DC 20024

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**Funds from this award have been disbursed to subcontractors. [Click here to see a list of subcontractors](#)**

### Subcontractors

Recipient	Amount	City	State
Deloitte & Touche LLP	\$1,247,000	MC LEAN	VA
Edge Consulting LLC	\$489,519	CHANTILLY	VA
Greengate, LLC	\$614,195	WASHINGTON	DC
A. T. Kearney, Inc.	\$1,258,557	CHICAGO	IL

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## Wiki Description

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documenting its analysis and decisions, potentially increasing the taxpayer's exposure to financial risk from an applicant's default," the report says, while noting that the department's existing review process is "generally as stringent as or more stringent" as the one used by private lenders.

The report calls on the Energy Department to implement a "consolidated system for overseeing the application review process." It also urged the department to "adhere to its review process and document decisions made under updated policies and procedures."

The Energy Department is implementing a new system for managing loan application records, the report notes. But GAO says the department "has neither fully populated the system with data or records on all applications it has received nor its decisions on them. Nor has DOE committed to a timetable to complete the implementation of the new records management system."

"Until the system has been fully implemented," the report says, "it is unclear whether the system will enable the LGP to both track applications and adequately document its review decisions."

The Energy Department, in written comments to the GAO, said it agreed with recommendations to update credit policies and procedures, and to ensure that its management system includes current and past records.

But the department disagreed with GAO's recommendations to establish a timetable for its "consolidated" system to track the status of the applications.

DOE said it "believes that it is important that our report distinguish between application tracking and records management," the report says. "We believe we have adequately distinguished the need for application tracking and management of documentation."

"DOE also states that LGP has placed a high priority on records management and is currently implementing a consolidated state-of-the-art records management system," according to the GAO report.

Energy Department spokesman Damien LaVera defended the loan program Monday.

"The Department's loan program has a robust records management platform and is in the process of deploying a consolidated state-of-the-art business management system. While we appreciate the GAO's report, it is important to note that the GAO did not evaluate the quality of the LGP's analyses or the merits and creditworthiness of any DOE loan guarantee," he said in a



**Committee Reports**  
**112th Congress (2011-2012)**  
**House Report 112-462**

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**House Report 112-462 - ENERGY AND WATER DEVELOPMENT APPROPRIATIONS  
BILL, 2013**

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**ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN  
PROGRAM**

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-----  
Appropriation, 2012              \$6,000,000  
Budget estimate, 2013            9,000,000  
Recommended, 2013              6,000,000

Comparison:

Appropriation, 2012  
Budget estimate, 2013 -3,000,000  
-----

manufacturers for the cost of re-equipping, expanding, or establishing manufacturing facilities in the United States to produce advanced technology vehicles or qualified components, and for associated engineering integration costs.

The Committee recommends \$6,000,000 for the Advanced Technology Vehicles Manufacturing Loan Program, the same as fiscal year 2012 and \$3,000,000 below the budget request. The funds provided support administrative operations only.

## DEPARTMENTAL ADMINISTRATION

### GROSS APPROPRIATION

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Appropriation, 2012	\$237,623,000
Budget estimate, 2013	230,783,000
Recommended, 2013	230,783,000

#### Comparison:

Appropriation, 2012	-6,840,000
Budget estimate, 2013	

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### REVENUES

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Appropriation, 2012	\$-111,623,000
Budget estimate, 2013	-108,188,000
Recommended, 2013	-108,188,000

#### Comparison:

Appropriation, 2012	+3,435,000
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# NET APPROPRIATION

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Appropriation, 2012	\$126,000,000
Budget estimate, 2013	122,595,000
Recommended, 2013	122,595,000

## Comparison:

Appropriation, 2012	-3,405,000
Budget estimate, 2013	

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The Committee recommendation for Departmental Administration is \$230,783,000, \$6,840,000 below fiscal year 2012 and the same as the budget request. The recommendation for revenues is \$108,188,000 as requested, resulting in a net appropriation of \$122,595,000. Funding recommended for Departmental Administration provides for general management and program support functions benefiting all elements of the Department of Energy, including the National Nuclear Security Administration. The account funds a wide array of Headquarters activities not directly associated with the execution of specific programs.

*Office of Indian Energy Policy and Programs-* The Committee recommends \$2,506,000 for this office, the same as the request, to coordinate and implement energy management, conservation, education, and delivery systems for Native Americans.

*Economic Impact and Diversity, Program Support-* Within available funds, the Committee recommends \$1,000,000 for Minority Economic Impact, the same as fiscal year 2012 and \$400,000 more than the request.

# OFFICE OF INSPECTOR GENERAL

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Appropriation, 2012	\$42,000,000
Budget estimate, 2013	43,468,000

Appropriation, 2012 +1,468,000

Budget estimate, 2013

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The Office of Inspector General (OIG) performs agency-wide audit, inspection, and investigative functions to identify and correct management and administrative deficiencies that create conditions for existing or potential instances of fraud, waste, and mismanagement. The audit function provides financial and performance audits of programs and operations. The inspection function provides independent inspections and analyses of the effectiveness, efficiency, and economy of programs and operations. The investigative function provides for the detection and investigation of improper and illegal activities involving programs, personnel and operations.

The Committee recommendation is \$43,468,000, \$1,468,000 above fiscal year 2012 and the same as the budget request.

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# \* Republicans ask whether taxpayer loan prudent

\* Fisker loan frozen after production delay

By [John Crowley](#)

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WASHINGTON, April 23 (Reuters) - Two U.S. senators have asked the Obama administration to explain why it approved a \$529 million loan to startup Fisker Automotive, which has suspended U.S. production of a heavily touted plug-in electric car as it revamps its business plan.

Charles Grassley, the top Republican on the Judiciary Committee, and John Thune, a senior Republican member of the Finance and Commerce committees, asked Energy Secretary Steven Chu whether it was wise to grant financing to Fisker, which ran into production problems after receiving part of the loan.

"Though the Department of Energy has now frozen the remaining portion of Fisker's loan, questions remain as to why a loan was extended to this now troubled auto company in the first place," the two lawmakers said in an April 20 letter that was released on Monday.

The Department of Energy (DOE) is working with an outside consultant, Houlihan Lokey, to evaluate a variety of agency loans, including Fisker.

Fisker was approved for the \$529 million loan in 2009 under a DOE program aimed at helping automakers make more fuel-efficient cars and trucks.

Fisker received about a third of the money initially to mainly support U.S. engineering and other efforts to roll out its first electric car, the \$100,000 Karma, that was assembled in Finland. But delays in getting that car to showrooms prompted the DOE to hold additional financing.

Remaining funds were to go to develop a \$50,000 sedan, called the Atlantic, at a former General

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expertise the DOE used to evaluate, originate and monitor the loan.

Agency spokesman Damien LaVens said DOE financing programs have strict conditions and borrowers must meet milestones and other conditions to receive loan proceeds.

He added that startup delays are common, and that the DOE is working with Fisker to review a new business plan and determine "the best path forward so the company can meet its benchmarks, produce cars and employ workers" in the United States.

Fisker says it has devised an approach that allows it to launch the Atlantic and be profitable without U.S. government loans. So far, it has raised more than \$1 billion in private financing since closing its Energy Department loan, the agency said.

A spokesman for Fisker confirmed the company was still in talks with the DOE and exploring all funding options.

A number of automakers are betting heavily on hybrids and electric vehicles. GM and Nissan Motor Co Ltd, which received DOE loans, have electric cars on the road. The push for greener cars has also ushered in a host of venture-backed startups like Fisker and Tesla Motors Inc. (Reporting By John Crowley; Editing by Eric Watan)

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## Citing Onerous Energy Dept. Loan Terms, Bright Automotive Says It Will Close

By *JIM MOTAVALLI*

Agence France-Presse — Getty ImagesThe Idea, the light-duty commercial van that Bright Automotive intended to produce.

Bright Automotive, a start-up company based in Indiana that hoped to sell a plug-in hybrid delivery vehicle to fleet customers, is closing, but it's not going quietly.

The company had applied for a loan under the Advanced Technology Vehicles Manufacturing program, administered by the Energy Department. The company's loan request, which was reduced to \$314 million from \$450 million, had been under review for more than three years before Bright announced on Tuesday that it would withdraw the application.

In a letter signed by Reuben Munger, the company's chief executive, and Mike Donoughe, its chief operating officer, that was sent to Secretary of Energy Steven Chu, the executives said that the company's application had been under review "for more than 1,175 days. That is a record for which no one can be proud." According to the letter, Bright received its fourth letter of conditional commitment from the agency last week. "Each new letter arrived with more onerous terms than the last," it said. "The first three were workable for us, but the last was so outlandish that most rational and objective persons would likely conclude that your team was negotiating in bad faith."

Michael M. Brylawski, a Bright executive vice president and co-founder, said in a telephone interview that the company had, with difficulty, met many preconditions of the loan process, including satisfying requests for a strategic industry partnership and parts supplier. Bright announced a \$5 million investment by G.M. Ventures, the venture capital arm of General Motors, in 2010. The government's most recent condition, Mr. Brylawski said, was for Bright to raise \$345 million in private equity financing to support the \$314 million loan and to spend the private financing before the federal funds could be accessed. "It was past byzantine," Mr. Brylawski said.

He also said that the federal loan program had "distorted" the market because the Energy Department had awarded so little financing since committing to a \$529 million loan to Fisker Automotive in 2009. Consequently, many potential financiers would invest only in projects that had received guaranteed support from the federal government, Mr. Brylawski said.

tera, an electric vehicle start-up company based in California that worked to bring it to market, ceased operations in December after failing to meet the conditions of a federal loan.

The Energy Department's loan program was allocated \$25 billion by Congress in 2008 and about \$8 billion has been distributed, most recently in 2010 to the Vehicle Production Group, a company developing a wheelchair-accessible car that would run on compressed natural gas.

The Energy Department declined to respond to the specific charges made in the Bright Future executives' letter. In a prepared statement, Damien LaVera, a spokesman, said:

"We understand that this is a difficult day for Bright Automotive and their workers. Over the last three years, the department has worked with the company to try to negotiate a deal that supported their business while protecting the taxpayers. In the end, we were able to come to an agreement on terms that would protect the taxpayers."



economies of each were troubled, and even better would be if both believed the other was partially to blame. For the desk-pounding hawks in each country, it would be useful to point towards acts of military aggression as further cause to be suspicious of the intentions from the other. And, it would not hurt to have several high profile policy failures that suggest your country cannot compete fairly against the other.

Unfortunately, as the summer of 2012 draws to a close, each of

these criteria for a perfect storm appears to be coming together. Mitt Romney, the GOP's presidential nominee, has publicly castigated China as much of the cause of America's economic problems.

A particularly contentious election in the United States is being matched by a leadership transition in China fraught with subterfuge and enormous downside risk when measured against China's stated desire for peaceful transitions and social stability.

The American economy continues to languish, with a slowing economy in China ominously suggesting that the world may be in for a protracted downwards slide as the year comes to a close. Military tensions in the South China Sea have only increased the not so subtle view by many American policy makers that China's military aspirations are not peaceful, nor should they be trusted to act as "responsible stakeholders."

Nested into all of these problems and frustrations has come a story that would otherwise be only momentarily interesting: the purchase of Waltham, Massachusetts A123 Systems by China's Wanxiang.

A123, an American lithium ion battery company, was the recipient

and private investors thus far, would have been much more severe had Wanxiang not stepped up as a potential suitor. All of this has been lost on congressional critics like Cliff Stearns (Republican - Florida), who issued a statement saying, "Once again it appears the Department of Energy and the Obama Administration have failed to secure sensitive taxpayer funded intellectual property from being transferred to a foreign adversary."

Not to be outdone, Senators Chuck Grassley (Republican - Iowa) and John Thune (Republican - South Dakota) sent a letter to Department of Energy Secretary Steven Chu echoing Stearns's fears. In their letter, the two senators say "Billions of US taxpayer dollars have flowed to foreign companies through the Recovery Act, and we are concerned that the recent announcement could lead to even more taxpayer dollars going overseas."

Public congressional criticisms have thus far sounded one common theme: is clean-tech research being paid for by American taxpayers getting unwittingly sent to China? If so, what sort of economic return (if any) should these taxpayers anticipate?

It is unclear exactly what to make of these Republican criticisms. Some are certainly being pursued purely because it is the silly season of American electoral politics. But what precisely do these senators propose should have been done differently? Should the investments not have been made at all?

Many in the conservative camp would agree that the government has no role to play in incentivizing or otherwise nurturing infant industries.

Should the investments have been somehow nationalized to prevent intellectual property from going to another nation that might use it for their own economic gain? Such an approach can at times be taken in cases where national security might be at

Can your program would be a good way to start, however, would this be all a Romney led administration would like to see done differently?

Given everything that Romney has felt obligated to say about China in order to appease the hawkish elements of his party, can he only treat China as an economic threat, or must China be something more?

Most troubling is that, as seen by too many contemporary Republicans, China and Obama are one in the same. They both believe that government is somehow necessary or otherwise central to addressing social problems and formulating national economic policy. Neither entirely trusts the market to work independent of oversight. Both see government as a necessary way to collectively manage society at the acknowledged expense of maximizing individual freedom.

Whether these are reasonable or intellectually coherent comparisons are beside the point: they capture much of the shared suspicion and animas that colors how conservatives view both China and President Obama.

In the hustle and bustle of the GOP's convention in Tampa, one thing is clear: the Republican Party is eager to defeat President Obama and destroy the ideas he has advocated. The means by which these will be pursued are increasingly aggressive as conservatives come to believe the ends will justify the means. Is something similar shaping up in how these same people view China? Will it become necessary to elevate China to the same sort of ideological threat as the Obama administration is supposed to represent to the American way of life, and if so, what does that mean conservatives should be prepared to do to China?



Ford was the only one of Detroit's three automakers able to avoid taking a direct government bailout in 2009 to bypass bankruptcy. However, that doesn't mean it hasn't been able to benefit from some government largess.

Back in 2006 before the credit markets collapsed, Ford essentially mortgaged every facility it had in order to borrow \$23.5 billion. That money was used to provide operating cash flow that General Motors and Chrysler didn't have when things went south in 2008. The money allowed Ford to keep the lights on, but it also saddled the company with the debt consisting of accounts of \$2.19 million in

outs, Ford has been able to take advantage of several go  
like the Advanced Technology Vehicle Manufacturing  
to fund new vehicle development and factory retooling.  
loans from various states as well as other countries like  
ed profits earned in the past year to pay down higher in  
ord hopes to get back from junk bond status to investm

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#### Cloud ERP

- Video Library for Automotive Suppliers
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**Ford Motor Co., Nissan Motor Co.,** and Tesla Motors have benefited, using the cheap money to convert aging factories to build everything from compacts to pure electric vehicles.

Fisker Automotive got a commitment, but it has struggled to get its U.S. production line running. Some startups died while waiting

for an answer.

Now, the Department of Energy auto loan program, created by Congress and signed into law by President George W. Bush in 2007, is bogged down in election-year politics. Republicans are on the attack, and if they get their way, the program could face the ax in this year's budget showdown.

Others, including many green-tech advocates and Democrats, say new loans are being stalled by political considerations and the program needs to be reworked.

"What you're seeing is a general atmosphere of attack on any government support for clean energy," said Roland Hwang, transportation program director for the Natural Resources Defense Council, an environmental group. "And that's made the government rather cautious."

Plus, consumers aren't exactly flocking to EVs.

In March, General Motors suspended production of the plug-in hybrid Chevrolet Volt for more than a month to help trim inventories. It had missed its 2011 sales target of 10,000 Volts, selling only 7,671 units. Nissan sold 8,674 all-electric Leafs last year. For the year, sales of the Leaf and Volt accounted for only a sliver of the U.S. market, about 0.1 percent.

So far, the initiative, officially the Advanced Technology Vehicles Manufacturing Loan Program, has disbursed less than half of the \$25 billion supported by its fund.

Only five companies have received loan guarantees since 2008, the year the program was funded by Congress, with the majority of the allocations -- about \$5.9 billion -- going to Ford.

In a statement, DOE spokesman Bill Gibbons said of the auto loan program that the department is committed to balancing support for innovative, clean-vehicle projects with "our responsibility to be good stewards of the taxpayer's money."

Meanwhile, Republicans are seizing on last year's bankruptcy of solar-panel maker Solyndra Inc. to criticize the Obama administration's use of public dollars to spur growth in the clean-energy sector -- even though the advanced-technology vehicles program originated with the Bush administration.

While Solyndra's \$535 million loan commitment was backed by a separate DOE program -- one funded by stimulus spending under the Obama administration and intended to give new alternative-energy business a boost -- the company's demise has cast a pall over all green-energy lending, including the auto loan program.

"I'm concerned this Congress is missing the larger picture of the lessons to be learned" from the auto loan program, said Rep. John Dingell, D-Mich., referring to the importance of expanding the nation's clean-energy manufacturing base.

"We don't need to throw the baby out with the bath water."

#### Retooling for fuel efficiency



Motor manufacturing in a factory in Fremont, Calif., to build its second EV, the Model S. The car is scheduled to go on sale this summer.

Nissan used its \$1.4 billion DOE loan money to overhaul its factory in Smyrna, Tenn., for production of the all-electric Leaf. The Japanese carmaker also used the loan money to build a battery plant there capable of producing 200,000 packs a year. Both are slated to start production by year end.

"Obviously, it worked out well for us," said Tracy Woodard, Nissan's director of government affairs. "But we don't have a position on the program. That's up to Congress to decide."

## DOE loans

### WINNERS

**Ford Motor Co:** \$5.9 billion

**Nissan Motor Co:** \$1.4 billion

**Tesla Motors:** \$465 million

**Fisker Automotive:** \$529 million

**Vehicle Production Group:** \$50 million

### LOSERS

**Next Autoworks:** Fails to secure \$320 million loan, consolidates operations

**Aptera Motors:** Fails to secure \$150 million loan, shuts down

**Bright Automotive:** Withdraws request for \$314 million loan, closes shop

**Carbon Motors:** Denied \$310 million loan request

**General Motors:** Withdraws request for \$14.4 billion in loans

**Chrysler Group:** Withdraws request for less than \$3.5 billion in loans

## False starts

Other companies haven't had it as easy.

High-end startup Fisker Automotive has yet to start the assembly line at its plant in Wilmington, Del., after winning a \$529 million loan agreement in April 2010 to retrofit the former GM plant for a second, plug-in hybrid model.

The company missed several government-imposed deadlines when it delayed sales of its first plug-in hybrid, the Karma, which starts at \$103,000, including shipping.

So far, it has drawn down \$193 million on the loan. But because of the missed benchmarks, the DOE has blocked access to the rest, stalling work at Fisker's U.S. plant, a Fisker spokesman said.

Last summer, Fisker began renegotiating the terms but hasn't reached an agreement, he said.

"They have exercised a lot more due diligence," the spokesman said. "They are looking deeper into the

"To borrow a dollar, I'd have to mortgage my future, and it wasn't worth it," he told the *Week* during a trip to Washington.

GM, which had applied for multiple loans in 2009 totaling \$14.4 billion, withdrew its request in January 2011, saying it didn't want to take on the debt.

Meanwhile, politicians on both sides of the aisle have taken the DOE to task for its handling of the clean-energy loan programs, especially in the wake of the Solyndra bankruptcy.

A White House audit, commissioned in November by then-Chief of Staff William Daley, called for stronger oversight of the direct loans and more staff to monitor risks.

### **Budget battle**

During last year's budget fight, House Republicans moved to reallocate \$1.5 billion from the auto loan fund to disaster relief.

The Democrat-controlled Senate blocked that effort, but now conservatives are taking aim at all green-energy loans, including those intended for the auto industry, in an alternative budget proposal for 2013 released by House Republicans last month and passed by the GOP-controlled House last week.

The GOP's plan calls for an immediate end to "all programs that allow government to play venture capitalist with taxpayers' money."

Genevieve Cullen, vice president of the Electric Drive Transportation Association, a Washington advocacy group, said Republicans have made attempts at shaving money from the advanced-technology vehicles program, only to be beaten back each time by congressional support for the loans.

But with the budget fight heating up in Washington, the loan fund could become a hot target as the GOP seeks to slash spending in the next round of budget talks.

Cullen said: "I don't think anything is safe going forward."

### **Retooling for fuel efficiency**

**Dec. 2007:** The Advanced Technology Vehicles Manufacturing Loan Program is established as part of the Energy Independence and Security Act.

**Sept. 2008:** Congress appropriates \$7.5 billion to support a maximum of \$25 billion in loans under the program; it kicks in another \$10 million for the U.S. Department of Energy to administer it.

**Sept. 2009:** DOE makes first loan commitment to Ford Motor Co. for \$5.9 billion to help the automaker retool 11 factories in five states; Ford commits to 33,000 new or saved jobs.

**Jan. 2010:** Nissan Motor Co. gets a \$1.4 billion loan agreement to retool its factory in Smyrna, Tenn., to build all-electric vehicles; the money also goes to build a battery plant; Nissan agrees to create 1,300 jobs.

**Jan. 2010:** Tesla Motors Co. receives a \$465 million loan agreement to reopen the former New United Motor Manufacturing Inc. factory in Fremont, Calif., to build the electric Model S, as well as battery packs and electric motors; Tesla commits to 1,500 new jobs.

**April 2010:** Fisker Automotive gets a \$529 million loan agreement to retool a former General Motors plant in Wilmington, Del., for production of plug-in hybrids; Fisker commits to 2,000 jobs.

**Jan. 2011:** GM withdraws its request for \$14.4 billion in loans, saying it has enough cash to fund vehicle



June 1, 2011, 12:15PM ET

## lose \$14B of auto bailout funds

administration said Wednesday that the government will lose about \$14 billion in taxpayer funds from the bailout of the U.S. auto industry as a president's National Economic Council, officials said that figure is down from the 80 percent the Treasury Department originally estimated following its \$80 billion bailout of Chrysler and General Motors in 2009.

It coincides with the administration's efforts to tout the bailout's role in the revitalization of the U.S. auto industry after last week's announcement of \$5.9 billion in U.S. loans and a \$1.7 billion loan from the Canadian government. Those payments cover most of the federal bailout and it nearly ran out of cash in and went through a government-led bankruptcy.

It announced that it had repaid a little more than half of the \$50 billion it received in federal aid.

Timothy Geithner said U.S. auto companies are now at the forefront of a comeback in American manufacturing.

"We'll see their success, and at some point they may stumble. But we've given them a better shot," Geithner wrote in an opinion piece in *Wall Street Journal*.

"I don't think we'll get back all of our investments in the industry, we will recover much more than most predicted, and far sooner," he wrote.

Chrysler plant in Ohio Friday to tout highlight the company's success.

Obama on the verge of collapse in the final days of the Bush administration after Congress failed to approve an emergency loan package for the companies \$17.4 billion in loans and required them to develop a restructuring plan by mid-February 2009.

Obama pumped billions more into the carmakers later that spring but won concessions from industry stakeholders, allowing it to push forward in the summer of 2009.

# Abound's CEO Won't Appear May 16 for Issa's Loan Hearing

By Jim Snyder on May 10, 2012

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Abound Solar Inc.'s chief executive officer declined to testify before a House panel investigating the U.S. clean-energy program that backed the company as well as failed Solyndra LLC, the committee chairman said in a letter.

Representative Darrell Issa, a California Republican and chairman of the House Oversight and Government Reform Committee, wrote Abound's lawyer on May 9, urging Chief Executive Officer Craig Witsoe to reconsider or agree to be interviewed by congressional staff.

Abound, which fired 180 people in February after getting a \$400 million U.S. loan guarantee, is among companies asked to testify at a May 16 hearing. The solar-energy projects have been criticized by Republicans, who say funding by the Department of Energy represents broader failures of President Barack Obama's 2009 economic stimulus program that financed the guaranteees.

"The risks to taxpayer funds associated with these outlays are significant," Issa wrote to Frank Swain, an attorney for Abound at Faegre Baker Daniels LLP. "Serious questions remain about DOE's decision to grant Abound hundreds of millions of dollars in loan guaranteees."

Steve Abely, an Abound spokesman, said the Loveland, Colorado-based company was "cooperating

“Craig is prepared to meet with the committee, and we are currently working out the timing,” Abely said in an e-mail.

The company has drawn down about \$70 million of the loan, the Energy Department said.

Abound cited two reasons for not wanting to participate in the May hearing, according to Issa's letter. It wanted to avoid jeopardizing ongoing negotiations with the Energy Department, and executives had a series of meetings with current and potential investors in the company in mid-May.

Executives from First Solar Inc. (FSLR) ([FSLR](#)), BrightSource Energy Inc. (BRSE) ([BRSE](#)) and Nevada Geothermal Power Inc. (NGP) have agreed to testify, Becca Watkins, a committee spokeswoman, said in an e-mail.

Republicans released in March a report by Issa's staff they said showed mismanagement of the loan program extended beyond Solyndra, which filed for bankruptcy protection in September after it won a \$535 million loan guarantee.

Abound shut production as solar-panel prices plummeted. The company said in February that it plans to refit its manufacturing lines to produce more efficient products.

## **‘Compulsory Process’**

The committee may use a “compulsory process” to elicit testimony from Witsoe, Watkins said.

Issa's letter noted that Fitch Ratings Ltd. had indicated investing in Abound would be “highly speculative.”

Abound won bipartisan support in Congress. Members of the Indiana delegation, including Senator Richard Lugar, defeated in a Republican primary this week, and Republican Representative Dan Burton, wrote Energy Secretary Steven Chu in October 2009 expressing “strong support” for Abound's loan guarantee application.

Abound planned to build a manufacturing plant in Indiana.

The potential long-term loss on 30 U.S.-backed clean-energy and auto loans might be \$2.7 billion, or about \$200 million less than the Energy Department's estimate, Herbert Allison, a former Treasury Department official, found in a review, which was conducted in response to pressure from Republicans.

Allison rated projects such as Solyndra and Abound to be higher risk than others in the overall Energy Department loan portfolio.

To contact the reporter on this story: Jim Snyder in Washington at [jsnyder24@bloomberg.net](mailto:jsnyder24@bloomberg.net)

## Stifling Innovation with Subsidies

hosted by [Tad DeHaven](#)

A couple of weeks ago I [wrote about a story in \*Wired\*](#) regarding the Department of Energy's Advanced Technology Vehicles Manufacturing Loan Program. The gist was that government subsidies to particular manufacturers are putting non-recipients at a competitive disadvantage in obtaining private capital. The author, a former Tesla Motors official, noted that "this massive government intervention in private capital markets may have the unintended consequence of stifling innovation by reducing the flow of private capital into ventures that are not anointed by the DOE."

An article in yesterday's *Wall Street Journal* [builds on this theme](#) by detailing the political menapigans surrounding the DOE's awarding of a loan to Finnish high-end automaker, Fisker Automotive:

When tiny Fisker Automotive Inc. hit a financing glitch last year, threatening its plan to build a fancy gasoline-electric hybrid car in Finland, it turned to the U.S. Department of Energy... Within months, Vice President Joe Biden, the former senator from Delaware, was helping lure the embryonic car company to a shuttered General Motors Co. factory four miles from his house in Wilmington, right across the tracks from Biden Park. Soon, Fisker Automotive, a two-year-old business that has yet to sell a car, won loans from the federal government totaling \$528 million.

DOE spokesman claimed that, in the *Journal's* words, the subsidy decision process is insulated from politics. Oh sure, and I drive an emissions-free car that runs on fairy dust.

The following snippet illustrates, multiple Delaware politicians teamed up to tilt the system to their state's advantage:

On June 1, GM said it was closing 14 plants, including the one in Delaware... State officials and politicians were determined to keep it alive. In the middle of August, they learned the plant had drawn interest from Fisker. CEO Henrik Fisker came to see it and dropped by the office of a Delaware senator, Tom Carper, a Democrat. The visit unleashed a flurry of activity. Gov. Jack Markell, also a Democrat, quickly called an old friend at Kleiner Perkins to check on Fisker. Kleiner Perkins itself has political roots. A leading partner, John Doerr, sits on President Barack Obama's economic advisory board, and another partner is former Vice President Al Gore.

Of course, the story can't end without some grandstanding from the master of hyperbole himself, Joe Biden:

Mr. Biden recalled how every election year, including here at this gate and shake hands at every shift. I had had had with Mr. Fisker. He called the project '...ty.'

...orth the read for those concerned that American cap...  
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...ctors, Tom Carper

## Don't Leave the Energy Department Out of It

All readers where the auto bailout money will come from

Jane Kim

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Have you heard about the Advanced Technology Vehicles Manufacturing Loan Program? It's a recently created Department of Energy loan program that provides funds to companies for the development of fuel-efficient vehicles. It's also the pot of money from which the automakers, should the rescue bill for the auto industry pass a congressional vote, will receive their \$15 billion in emergency bridge loans.

You wouldn't know it from reading today's *NYT* article about the auto bailout, which doesn't say where the funds, should they be made available, will originate from:

The president's designee would disburse the short-term emergency loans to General Motors and Chrysler, which are at risk of financial collapse, and would directly supervise the reorganization plans that the auto manufacturers have agreed to carry out in exchange for government aid.

After a long weekend of drafting the auto bailout plan, Congressional Democrats on Monday afternoon delivered their draft bill to the White House, where senior officials quickly raised a number of concerns. The White House press secretary, Dana M. Perino, said Mr. Bush would insist on aiding only those automakers that can survive long term.

What the *Times* article doesn't mention is that, in order to sell the White House on the plan, the Democrats agreed to pull the funds from the pre-existing DOE loan program

It's information that has been reported throughout these negotiations. (This earlier *NYT* article, for one, both addresses the decision to take the money from the DOE loan program (a compromise that sought to "end a weeks-long stalemate" between Bush and Pelosi) and notes the lingering concern of how the program's funds will be restored. But this is information that should be included in any story about the auto bailout, and today's story is no different. (And it's ultimately irresponsible to assume that readers of today's newspapers also read Saturday's paper, which reported the compromise.)

*The Washington Post*, for one, succinctly works in the information: "Democrats bent to the will of the president on several key demands, most notably in agreeing that the emergency funding would be drawn from an existing loan program aimed at promoting fuel-efficient technologies." It's a single line, but it provides context, and brings the reader up to speed.

Stephen M. Davidoff at the *NYT*'s Dealbook blog comes out and **says it** perhaps most clearly:

The first auto bailout bill – introduced mid-November and which drew on TARP funding – has been abandoned.

As the New York Times reported Monday, there is a new compromise bill circulating, this version drawing financing from the Energy Independence and Security Act of 2007. Congress recently appropriated \$25 billion to be loaned under that bill to the automakers to build more energy efficient and environmentally sound automobiles.

The latest bill is entitled the Auto Industry Financing and Restructuring Act and it takes that \$25 billion funding and simply loans it to the automakers without the environmental or energy efficiency conditions.

That's clear language, some of which the straight news report could have adopted. Along the same lines, Ed O'Keefe at *The Washington Post* **provides** more details on the program, which is run through the Energy Department's Office of the Chief Financial Officer:

The loan program already has received nine loan applications, DOE press secretary Healy Baumgardner said in an e-mail statement Monday night. Energy continues to carry out the program, Baumgardner says "unless and

ancy Pelosi, who yesterday spouted reassurances that the stimulus package wouldn't affect other applicants to the DOE loan guarantee program. Being used for emergency loans, and that the program would be extended until, he ends his post with questions: "Will DOE loan guarantees for other money will other loan applicants receive?"

the future, but they also represent the other side of the coin. It makes them important to keep in mind—even if they seem more titillating as speculative news.



## GAO critical of loan program for carmakers

Regulators say staffing, delays derail loans to help automakers retool for greener autos

David Shephardson / Detroit News Washington Bureau

*Washington*—A new government report is harshly critical of a \$25 billion Energy Department loan program that is intended to help automakers retool for new fuel-efficient vehicles.

The Government Accountability Office said the Advanced Technology Vehicles Manufacturing program has serious problems, lacks enough staff and has been delayed in handing out much of its funds that were approved in September 2008.

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Chrysler Group LLC, for example, is eagerly awaiting word on its request for a \$3 billion loan that has been pending for nearly two and a half years.

As a result of the long delays, many companies have given up on their loan applications. General Motors Co., which had sought up to \$14.4 billion in loans, abandoned its effort in January. The Energy Department has made \$8.4 billion in loans, primarily to Ford Motor Co., Nissan Motor Co., Tesla Motors Inc. and Fisker Automotive Inc.

The report disclosed that the Energy Department said the loans to the four companies will save or create 37,800 jobs, including 33,000 at Ford.

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manufacturers would have made, in the absence of the loans, to remain in compliance with increasingly federal fuel economy requirements."

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"Staff lack the engineering expertise called for by the program's procedures for adequately overseeing technical aspects of the projects," the report said. "As a result, DOE cannot be adequately assured that the projects will be delivered as agreed."

Furthermore, the report said, some of the money hasn't been used properly by three automakers. It did not identify them or how much it believes was misspent.

"The auditors have reported instances in which two of the four borrowers did not spend funds as required, with two borrowers spending some loan funds outside the United States and the third spending some loan funds on ineligible payroll expenses," the GAO report said.

The Energy Department said the mistakes were minor relative to the size of the loans and that the companies have taken corrective actions. Energy spokeswoman Stephanie Mueller defended the agency's handling of the program. "The department has put in place a rigorous financial and technical review for each project that applies for a loan under the program, and the results speak for themselves," she said.

The GAO report also said the government hasn't done enough to assess the program's "broad goal of improving the fuel economy of U.S. passenger vehicles as a whole, because it does not account for, among other things, the fuel-economy improvement



## Department of Energy

Washington, DC 20585

May 18, 2012

The Honorable Charles E. Grassley  
Ranking Member  
Committee on the Judiciary  
United States Senate  
Washington, DC 20510

Dear Senator Grassley:

Thank you for your April 20, 2012, letter to Secretary Chu regarding the Advanced Technology Vehicles Manufacturing (ATVM) program and the program's loan to Fisker Automotive Corporation.

### **The ATVM Program and Fisker Automotive**

Created with strong bipartisan support and signed into law by President Bush in 2007, the ATVM program is helping to accelerate the development and deployment of fuel-efficient advanced technology vehicles and components. To achieve these goals, the ATVM program provides financing to automobile manufacturers and component suppliers.

On April 22, 2010, the Department of Energy (DOE) awarded a \$529 million loan to Fisker Automotive for the development and production of two lines of plug-in hybrid electric vehicles: the Karma and the Atlantic. To date, \$192 million of the loan has been disbursed to Fisker, to fund eligible Karma expenses and to partially fund the purchase of a former General Motors (GM) plant in Delaware.

With respect to the Karma, loan proceeds must be used to support engineering in the United States to develop tools, equipment and manufacturing processes for the Karma. That engineering work is performed in Fisker's U.S. facilities, including its headquarters in Irvine California, where it has 700 employees. The Karma's unique technology was developed by American engineers and designers to reduce dependence on foreign oil and help Americans save money through higher fuel economy.

The remainder of the loan is to be used for production of the Atlantic. When the loan was signed, Fisker planned to re-equip a shuttered GM plant in Delaware for this production, expecting to employ more than 2,500 workers. DOE is working with the company as it revises its business plan. DOE will not provide funding under the loan for the Atlantic until the revised plan meets program criteria and all other applicable requirements.

### **Due Diligence and Portfolio Management**

Like the due diligence performed on all ATVM loan applications, the Department's due diligence for the Fisker loan was extensive — with rigorous financial, technical, legal and market analysis conducted



over many months by DOE's internal professional staff, including qualified engineers and financial experts, and outside experts. The Loan Program's underwriting and due diligence standards are as rigorous as, or more rigorous than, those in the private sector. As part of that diligence, DOE assessed the projected fuel economy improvements of the Fisker vehicles over vehicles of the same class. In that assessment, DOE relied on the EPA vehicle classifications, which are based on the interior dimensions of the car.

Following issuance of a loan, DOE monitors the borrower's performance against its business plan and projections prepared by the borrower and approved by DOE. In his report on the Loan Program, former Assistant Secretary of the Treasury for Financial Stability Herbert Allison noted that the Department is not a "passive bystander" when monitoring a loan; rather, DOE has the ability to reduce or mitigate risk in the portfolio over time and has "robust tools" for protecting itself from elective risk and to ensure adequate protection of taxpayer investments. The GAO's recommendation to use DOE-created performance metrics would greatly expand the scope of the program.

### **Selection Criteria and Applicant Requirements**

In establishing the ATVM program, Congress directed DOE to award loans that support the development and manufacture of advanced technology vehicles and components for advanced technology vehicles that meet statutorily-mandated efficiency and environmental standards. To date, five companies, including Fisker, have met those criteria and been awarded loans.<sup>1</sup>

The automobile industry is global; like Fisker, nearly all major automobile companies have overseas operations. Two of the largest loans made by the ATVM program are to Ford Motor Company, which has operations in Europe, South America and Asia; and Nissan, which has operations throughout the world. The proceeds of these and other ATVM loans are required to finance operations in the United States. In addition, while the Fisker Karma is assembled in Finland, more than 45 percent of the Fisker components are manufactured by approximately 40 suppliers located in the United States. If companies with overseas operations were disqualified from participating in the program, the Department would have few opportunities to support the global competitiveness of U.S. industry as it develops energy efficient vehicles.

### **Credit Subsidy Costs**

When funding the program, Congress appropriated nearly \$7.5 billion to cover estimated credit subsidy costs for ATVM loans, thereby acknowledging the inherent risks of funding new and innovative technologies in an industry that was facing significant market and economic challenges. By appropriating this credit subsidy, Congress also ensured that risks in the ATVM loan portfolio would be properly accounted for in the budget. Nonetheless, DOE underwrites and structures its loans to protect the interests of taxpayers and maximize prospects for full repayment of the loan — not to achieve a target default rate. Indeed, based on the most recent re-estimates approved by OMB, the estimated credit subsidy cost of the ATVM portfolio as a whole is well below 30 percent.

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<sup>1</sup> General eligibility requirements, application requirements, and the application process are governed by the Energy Independence and Security Act of 2007, Pub.L. No. 110-140, and the ATVM programs Interim Final Rule. 10 C.F.R. 611 (2008).

## Job Creation

With respect to the projections of job creation, the applicant estimates these numbers during the application process. Such estimates do not include indirect jobs or the economic activity created throughout the supply chain. DOE does project the impact on CO2 emissions, based on EPA data for annual emissions per car on the road and the applicant's technical projections. In each case, as Fisker is still in the process of revising its business plan, we are unable to provide updated numbers.

Two years ago, the American automobile industry was on the brink of collapse during a historic economic crisis. Now, in part because of help from the ATVM program, the America's automotive industry is reinventing itself—expanding production, growing profits, creating jobs, and making more fuel efficient automobiles. While American manufacturing continues to face substantial challenges, its future prospects are stronger than they have been in over a decade. The Department looks forward to continue supporting this success.

If we can be of further assistance, please do not hesitate to contact me or Mr. Brad Crowell, in the Office of Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,



David G. Frantz  
Acting Executive Director  
Loan Programs Office

*Acting for*

Cc: The Honorable John Thune  
United States Senator

Posted: 03/30/11 09:37 PM ET

[Barack Obama](#), [Green Technology](#), [Green Jobs](#), [Tesla Motors](#), [Apple](#), [Facebook](#), [Google](#), [Energy Department](#), [Kleiner Perkins Caufield & Byers](#), [Silicon Valley](#), [Steve Westly](#), [Amyris Biotechnologies](#), [Edeniq](#), [John Doerr](#), [Reecebank](#), [Solar Power](#), [Solyndra-Inc](#), [Steven Chu](#), [Westly Group](#), [Politics News](#)



**By Ronnie Greene and Matthew Mosk**  
[The Center For Public Integrity](#)

In connecting green technology startups with government money, Silicon Valley venture capitalist Steve Westly boasts of a special touch.

"We believe that with the Obama administration, and other governments ... committing hundreds of billions of dollars to clean tech, there has never been a better time to launch clean tech companies," says his company website. "The Westly Group is uniquely positioned to take advantage of this surge of interest and growth."

Uniquely positioned, indeed.

One of President Barack Obama's most prolific fundraisers, Westly was among guests at January's state dinner for the president of China. A month later, he dined with Obama again at an exclusive San Francisco Bay area gathering for prominent high tech CEOs, including the leaders of Facebook, Google and Apple.

He visits White House staff and, as a member of a government advisory board on energy policy, has the ear of Energy Secretary Steven Chu, whose department hands out the sort of seed money sought by companies in The Westly Group portfolio. He even has hosted the president at fundraisers in his Northern California home, and co-hosted events for three of Obama's most influential advisors.

All the while, Westly's four-year-old green business has boomed. Since June 2009, four companies in his venture firm's portfolio have received more than half a billion dollars in loans, grants or stimulus money from the Obama Energy Department, a review by the Center for Public Integrity and ABC News has found.

Relatively few companies succeed in winning such benefits. More than 90 percent of applicants have failed to secure funding in two programs benefiting three Westly-backed firms. Securing government aid helps attract investors and can make corporate stars of even small startups. Funding for The Westly Group firms occurred prior to his joining the government advisory board, though an Obama administration proposal after Westly's appointment immediately boosted the stock price of one company.

Westly's ability to straddle the worlds of big time fundraising, government advising and private financing for startup companies tells a larger story about how business and politicking intertwine at an Energy Department flush with \$35 billion in stimulus money.

"It looks like kind of the classic Washington hands washing each other," said Mary Boyle, a spokeswoman with Common Cause in Washington. "He's politically active, he gives money, he gets noticed, he lands on an energy board. ... Firms that he backs are landing these lucrative energy contracts."

It's the very cycle of money, influence and access that Obama vowed to break when he came to Washington but which persists two years into his presidency.

Westly, a former public official in California, declined repeated requests from the Center for interviews and walked away without comment when questioned by an ABC reporter at a Washington event earlier this month.

He isn't the only politically active investor whose portfolio firms win energy grants.

John Doerr, a California billionaire who made a fortune investing in Google, hosted Obama at February's dinner for Westly and the other high tech executives at his secluded estate south of San Francisco. His venture firm, Kleiner Perkins Caufield & Byers, backs green tech firms, several of which secured DOE funding, records show.

Doerr and Kleiner Perkins executives have contributed more than \$1 million to federal political causes and campaigns over the last two decades, primarily supporting Democrats, and Doerr serves on Obama's Economic Recovery Advisory Board. Doerr did not respond to multiple interview requests about his dinner with Obama.

Another beneficiary of Energy Department aid is Solyndra Inc., a California solar power firm whose financial backers include Oklahoma oil billionaire George Kaiser, a bundler who raised at least \$50,000 for the president's campaign in 2008. Solyndra, a recipient of a \$535 million 2009 loan guarantee to help create jobs, laid off some 180 temporary and fulltime workers the following year, prompting questions in Congress over whether its new manufacturing plant will spur the 1,000 fulltime U.S. jobs the company promised.

Company spokesman David Miller said Solyndra, which first applied for the guarantee during the Bush administration, won it on merit. "Over time," he said, "yes, we believe we will meet those goals."

Obama's focus on environmentally promising technologies while gaining support from clean tech titans comes at a time when the Energy Department's handling of government largesse is gaining scrutiny. The Government Accountability Office, the investigatory arm of Congress, raised concerns in a report last year about favoritism in the awarding of some loan guarantees. The Energy Department's inspector general told Congress this month that some stimulus contracts may have been steered to "friends and family."

A GAO report to be released this week is expected to focus on a specific automotive loan program that benefited five companies, including two supported by the Westly and Doerr venture firms.

There's no indication in public records that any of those investigations focus on Westly, Doerr, Kaiser or their firms.

"A lot of these contracts are really being pushed out the door with no oversight," said Rep. Cliff Stearns, R-Fla., chairman of the Energy and Commerce oversight subcommittee. In an interview, Stearns pointed to the Solyndra contract as an example of poor government oversight. "I think what happens is, they give some of this money out to people who are either contributors or strong supporters."

## **A TRAIL OF LOANS, GRANTS AND TAX BREAKS**

The Obama administration's efforts to reduce pollution, especially from coal-powered plants, and to lower dependence on foreign oil has unleashed an unprecedented wave of federal aid to clean energy startups.

The federal dollars help clean tech firms expand their products and grow their bottom line. Four companies in The Westly Group portfolio received Energy Department loans, grants and stimulus money: Tesla Motors, RecycleBank, EdeniQ and Amyris Biotechnologies. Two of those firms, Tesla and Amyris, went public with stock offerings in 2010.

The government largesse started with \$465 million in loans that helped Tesla develop electric cars that cost \$54,700 each. Four months later came a \$700,000 federal grant, crucial to expanding a RecycleBank program in Philadelphia. In December 2009, the Energy Department awarded stimulus grants of \$20.4 million for an

EdenIQ bio-refinery and \$25 million for Amyris to develop a diesel substitute through the fermentation of sweet sorghum, both projects in California.

Over the last four years, Westly emerged as something of an entrepreneurial superstar in the clean technology movement. Then, in August, he gained a seat at the table when it comes to national energy priorities that affect his business interests.

On the White House's recommendation, Chu appointed him to his 12-member Advisory Board, a government-stamped seal of approval as The Westly Group pursues a \$175 million round of fundraising to expand its portfolio. Westly cites that appointment on his company bio.

Meeting minutes show he is leading a Chu subcommittee exploring "building energy efficiency."

In his venture capital firm, Westly is actively investing in energy efficient building materials, an area he describes as something of a new investment frontier.

This February came perhaps the prized jewel for a Westly investment, when the Obama administration proposed to stimulate sales of electric cars by offering consumers a \$7,500 federal rebate at the dealer.

Stock in Tesla, the Silicon Valley electric car maker that went public last year, rose 6 percent with the news. Westly sat on Tesla's board for more than two years, and though his firm recently sold its nearly 2.5 million shares, he personally remains a shareholder. "I think Tesla's best days are ahead of it," he told Bloomberg West TV March 11.

Some executives of companies financially supported by Westly's venture firm acknowledge that his activities — which include arranging introductions for them and helping them navigate bureaucracies in Washington even as he serves as an advisor to those bureaucracies — create the potential for a conflict of interest. But they say involving industry expertise is unavoidable, even necessary as the government strives to spur adoption of new technologies.

"This is the sort of conflict the DOE and USDA and other agencies run into when they take a step — which I think is a good one — in trying to involve people from industry in helping to advise and set direction," said Kinkead Reiling, co-founder of Amyris Biotechnologies, which landed a \$25 million Energy Department stimulus grant in 2009.

The White House and Energy Department deny that political supporters of the president have any edge as they compete for funding. "Grants and loans are competitively awarded on the basis of merit," said Reid Cherlin, a White House spokesman.

The Energy Department said it sees no conflict in his dual roles, saying Westly is an unpaid member of a board that is "advisory in nature." A spokesman noted that the loans and grants came before his appointment.

Because he is not a federal employee, Westly is not required to file disclosure or conflict of interest forms. The DOE said he made it aware of his investment activity and potential conflicts. Asked to release that information, the department said it was confidential.

Over the course of two months, Westly — who has often sought attention for political candidates he supports, and for the green energy movement he is part of — declined to answer questions for this story or respond to multiple requests for an interview through his company and via email.

"We've decided not to comment," said Michael Kaufman, a Westly Group principal.

When Westly came to Washington for Democratic fundraising events in March, he turned his back to ABC News and was escorted away by party officials.

Those who have worked with Westly over the years say his greatest assets are as public cheerleader — and tour guide to help companies navigate political terrain.



"He is a true believer in green technology at a time frankly when that was not very obvious," said Marc Tarpenning, one of the founders of eight-year-old Tesla Motors. "Steve was always a supporter and a true believer in it. He's not really a technologist."

Industry should embrace government, not fear it, Westly told Tesla. "'Government is not always bad and especially for something that is going to affect your business, you should be involved with it,'" Tarpenning quoted Westly. "He encouraged us to think about Washington."

As a businessman, Westly is in the vanguard of a movement to transform the nation through clean technology, a key initiative of Obama, who is backing his pledge with billions of federal dollars.

The push already has benefited a rash of innovative technology companies, including The Westly Group, one of the largest clean tech venture firms in the U.S. According to its website, the venture "has done very well" on a current \$127 million investment fund, and is pushing ahead with a new round of financing targeted at \$175 million.

As a chief fundraiser for the president, he's also at the vanguard of another development — the need to raise unparalleled sums of money for the 2012 re-election campaign. As a top fundraiser, Westly is in elite company: 52 so-called bundlers who raised more than \$500,000 on Obama's behalf in the 2008 race, according to records maintained by Public Citizen.

By hosting fundraisers and making calls to wealthy associates and acquaintances, bundlers from Florida to California raise the millions that help candidates pay for increasingly expensive campaigns. Their work can prove pivotal in contentious races, and they often are rewarded with prestigious posts such as ambassadorships.

Obama has continued a long tradition, tapping bundlers as ambassadors to Norway, France and Japan. More than 100 bundlers for the GOP's George Bush landed government posts, from Cabinet slots to ambassadorships to New Zealand and Portugal.

Westly's success is striking for the string of victories by companies in his portfolio, and for his timing in tapping into a rare area of government growth: Alternative energy, infused with more than \$8 billion for research and development in Obama's budget. He has become the green bundler with the golden touch — and the president's ear.

Companies whose investors include The Westly Group and that have won federal subsidies say the benefits of an association with Westly owe more to his insights than any help on specific Energy Department grants. They say he has made introductions in Washington, where he once worked under Jimmy Carter, and that his background in energy and financial matters was fruitful.

"We found that Steve is very helpful and insightful in understanding the political landscape, especially from the energy side," said Reiling, who also serves as senior vice president of Amryris, which The Westly Group backed until it went public last year. "Because of his past in D.C., he has been able to get some introductions. Once he introduces us, it's our job to actually do the work and show whoever he has introduced us to the value we can bring."

The Westly Group's political connections distinguish the firm from many other venture outfits.

"One of the things the firm pledges that differentiates The Westly Group from other venture capitalists is they help companies navigate the political landscape," said Eric Wesoff, a senior analyst who specializes in renewable energy and financing for Greentech Media, which covers news and analysis about the green tech market. "If the premise is that The Westly Group is able to pull some strings to get their companies federal funding, that might actually be part of his business plan."

"Why is this man smiling?" asked the sub-headline on a Wesoff profile of the company. "Three of this investor's portfolio firms listed on the Nasdaq in 2010." Westly is quoted as saying he and his team are "experts in helping portfolio companies with their interactions with government — federal, state and local."

Entrenched energy and oil firms have long banked on political connections and policy know-how to secure federal money. Now startup clean tech ventures, following the same playbook, are simply trying to run with the giants. "They are fighting incumbents like oil, gas and coal, and they need every advantage they can possibly extract. And that's why the DOE is giving out this money to provide some type of kick start to these non-incumbent technologies," Wesoff said. "This is the way energy works. This is the way business works. And here are these enormous amounts of stimulus funds."

Added Wesoff: "This is the way power brokers broker power."

## **A POWER BROKER FROM THE START**

Westly, 54, stepped into politics early.

He worked on Capitol Hill and in Carter's Energy Department Office of Conservation and Solar before returning to California to become special assistant to the president of the California Public Utilities Commission. After earning an MBA from Stanford's Graduate School of Business in 1983, he stepped into the business world, including a stint at Sprint Telecommunications.

His most fortuitous career move: Becoming one of eBay's early executives in 1997, where he helped the circle of young techies keep their eye on the bottom line in his role as Senior Vice President of Marketing, Business Development, M&A and International. "People were saying things like, 'Well, you don't really have to be profitable,'" he told *The (San Francisco) Chronicle*. His message: "You must be profitable."

The company was. And after Westly cashed out with riches in 2000, he quickly put his eye back on politics. With \$5 million of his own money, he narrowly won election as California controller in 2002. Four years later, he sought the Democratic nomination for governor, infusing his campaign with \$40 million from his personal fortune — and lost.

Westly returned to his business roots and continued to wield influence from the heart of Democratic Party fundraising.

By early 2007, he founded The Westly Group, a Menlo Park venture created to tap into the mushrooming clean tech movement by linking companies with green ideas to big money to back their projects. The firm soon hit significant pay dirt, completing a vision its founder set from the start.

"We believe that clean-energy innovation can achieve the dual aims of protecting our environment and generating economic opportunity," Westly wrote in a piece he co-authored in November 2007 for the Progressive Policy Institute, a think tank affiliated with the Democratic Leadership Council.

In March 2007, just as The Westly Group was getting off the ground, he joined the board of directors of Tesla, the California electric-car start-up then poised to introduce its first model — a sporty two-seat Roadster with a base price of \$109,000.

That same month, March 2007, Westly gave \$2,300 to Obama, part of a series of federal contributions to political causes. Westly co-chaired California's Obama for President Campaign, a fact also noted on his company website, and has personally contributed more than \$360,000 to Democratic campaigns and causes since 1998, according to federal election records compiled by the Center for Responsive Politics.

"I'm here to tell you Obama is the candidate with the momentum. Obama is the candidate of vision, and Obama is the candidate who is going to inspire a new generation of Democratic voters," Westly, speaking before a "Change We Can Believe In" banner, implored a crowd as Obama battled Hillary Clinton for the Democratic nomination in the 2008 election.

"Are you ready to fire it up?" he asked.

After Obama's election, Westly was rumored to become the president's energy secretary, according to media reports. The slot went instead to Chu.

Westly firms quickly tapped into the giant pot of federal money earmarked to the clean tech industry.

In winning the 2009 energy department loan, Tesla landed in rare company — just 5 of 130 applicants for the loan pool have received funding, records obtained by The Center show. The department said not all applicants were eligible or a good fit.

The GAO has chided the Energy Department for its handling of other loan programs geared toward new technologies and reducing emissions, finding last year that the department “had treated applicants inconsistently in the application review process, favoring some applicants and disadvantaging others.”

It said the department fast-tracked approvals for some applicants, and sometimes committed money before all its reviews were finished, “allowing these applicants to receive conditional commitments before incurring expenses that other applicants were required to pay.”

Separately, the Energy Department's inspector general, Gregory Friedman, said his office has 64 open investigations centered on stimulus spending. They include “the directing of contracts and grants to friends and family,” Friedman told the House Subcommittee on Oversight and Investigations. The department has one of the biggest pots of recovery money anywhere in the government — \$35 billion. With just one third of that money spent so far, “we expect that our efforts in this area will continue for some time,” Friedman said.

Now, a new, pending GAO report is focusing on the Advanced Technology Vehicles Manufacturing (ATVM) loan program that aided Tesla and four other car firms.

Documents obtained by the Center for Public Integrity under a Freedom of Information Act request show that one of the firms turned down for funding in that loan pool complained of unfair treatment and being ignored. In a five-page letter to Chu, dated Sept. 21, 2009, the company said it had been given no reason for its rejection and had to call the Energy Department multiple times simply to learn what happened.

“DOE reviewers never even talked to the founder, inventor, engineers, project leads or primary contractors to obtain additional information,” said the letter from the California electric car maker, XP Vehicles, Inc. “Why was staff at DOE during the course of the year positive about the outcome and never asked for additional information?”

Other firms shut out from the car program have expressed similar frustration. James Taylor, CEO of Ohio's Amp Electric Vehicles, [said](#) in a Q & A last week on Edmunds.com. “These are companies trying to get off the ground and are just like us, starving for cash, looking for investors,” Taylor said. The government money is “not falling through the funnel and getting out to us.”

For upstart firms, such loans make a huge difference. Tesla's came in two parts. The biggest chunk — \$365 million — was earmarked to bankroll a manufacturing facility for the \$57,400 Model S sedan, which is expected to hit the road in 2012. “The all-electric sedan consumes no gasoline and runs entirely on electricity from any conventional 120V or 220V outlet,” the department said. The other loan “will support a facility to manufacture battery packs and electric drive trains to be used in Teslas and in vehicles built by other automakers, including the Smart For Two city car by Daimler.”

“We don't simply make code that we put out on the Web. You have to buy big pieces of mechanical infrastructure,” Diarmuid O'Connell, Tesla's Vice President of Business Development, said in an interview. He said the financing, coming at a time commercial bank investments were drying up, was crucial to helping develop the Model S.

Consumers will benefit, O'Connell said, as the lower cost Model S is nearly half the price of the Roadster. Versions with longer battery lives will cost \$10,000 to \$20,000 more, Tesla recently announced. “It's not at all about the Tesla Roadster or toys for rich boys,” he said. As for Tesla securing funding sought by many but won by few: “Frankly, as a taxpayer I feel pretty good there's been a high degree of analysis” in the award process.

Connen said Westly aided the company on big picture issues — he was a nonprofit founding board — but not the application itself. He said Tesla first explored government funding under Bush, though it secured its loans from Obama.

Westly's biggest role, he said, has been as tireless public cheerleader for Tesla, citing the multiple green energy forums in which Westly has appeared. "He's a huge advocate of the company."

Now, with his latest blueprint for federal spending, Obama wants to hand consumers a \$7,500 rebate when they buy an electric car, helping push his long-shot goal of 1 million electric vehicles on the road by 2015. Tesla, with the Roadster already on the road and the Model S coming next year, could be among electric car makers to reap a windfall from that subsidy.

If the rebate goes through, the Obama administration will have aided Tesla at the front and back ends of its production line: The June 2009 loan package, given while Westly served on Tesla's board of directors, helped the company build a manufacturing hub for the Model S. Now, the administration's Cash for Clunkers-like rebate — eyed for cutting-edge electric vehicles — could help Tesla sell those cars to buyers wary of the sticker price.

Until now, consumers buying hybrid and electric vehicles could pocket a tax credit of up to \$7,500, but would have to wait until they filed their tax returns to benefit. Now, the break would come at purchase.

The rebate could make a "huge difference" for consumers and electric car makers, said Will Beckett, membership chair of the Electric Auto Association. He said not everyone qualifies for the current tax credit. So, handing a rebate at the dealer could draw in many more buyers — adding to other subsidies already available. In his home state of California, for instance, the state already gives a \$5,000 rebate to buyers of electric cars.

Tesla's O'Connell agrees the front-end rebate could lure more consumers. "Any economist will tell you that that's the best place to stimulate the buyer's decision," he said. "It's helpful on the margins. Will it be decisive? The market will prove that out."

In February, Tesla opened a showroom for its Roadster on K Street, Washington's lobbying corridor. The Roadster accelerates from 0 to 60 mph in 3.7 seconds without gas and travels 245 miles on a charge. Tesla said 1,500 of the cars are on the road in 30 countries.

"We're excited to bring this spirit of innovation to the nation's capital," the company said.

While The Westly Group website said the company is no longer a shareholder in Tesla, Westly continues to be, and his venture firm's relationship ended recently. When Tesla went public in June 2010, Westly Capital Partners Fund sold more than 70,000 shares valued at \$1.2 million, a minuscule portion of its nearly 2.5 million shares, according to SEC filings and the VentureBeat publication. The company, which once held more than 3 percent of Tesla, wasn't fully divested until late last year. Westly sat on Tesla's board from March 2007-December 2009.

## **ENERGY GRANTS FLOW TO VENTURE-BACKED FIRMS**

The other energy department grants to Westly-backed firms ranged from several hundred thousand dollars for recycling programs to more than \$20 million for green-tech work in California.

A \$700,000 Energy Efficiency and Conservation Block Grant, filtered to Philadelphia in 2009, helped RecycleBank expand its recycling benefits program in the city. "We can stand on our own two feet. The Westly Group, they've helped us in a billion ways, but never in a municipal contract," said Matt Tucker, RecycleBank's president. "He's very focused on financials for us."

In December 2009, Westly-backed EdeniQ landed a \$20.4 million Energy Department grant in partnership with Logos Technologies to "modify and operate a pilot-scale bio-refinery plant to produce low-cost ethanol bio-fuel

develop new technologies," said Will Gardenswartz, an EdeniQ contractor on the grant, who said the link with long-established Logos was important.

That same month, Amyris Biotechnologies landed \$25 million in stimulus money that will help the company convert simple sugars into fuel.

"On this particular grant there wasn't a need to bring in the big guns, but he has been very helpful generally," Reiling said. "He has a good insight into where the political momentum is going and he has made certain introductions to us. ... The best idea should win, but he's been helpful in getting us to the forum."

Logos/EdeniQ and Amyris were two of 19 projects funded under an Energy Department program that attracted over 300 applications. The department said the projects were reviewed by independent experts and that nearly half of the applicants failed to meet eligibility criteria.

At least two other companies that later joined The Westly Group portfolio, Amonix and CalStar Products, secured Energy Department funding just before their financial pact with the venture capitalist. Amonix, which makes solar panels, won \$9.5 million in stimulus funding in January 2010 for manufacturing work in Nevada and Arizona. Three months later, Amonix announced a \$129.4 million round of financing that included The Westly Group.

In July, with Amonix in the Westly fold, President Obama spoke alongside Amonix executives during a speech at the University of Nevada at Las Vegas, using the setting to press Congress to pass a \$5 billion extension to the administration's clean energy manufacturing tax credit. The White House said it did not make any trips at Westly's suggestion. Amonix executives did not respond to interview requests.

Doug Koplow, founder of the energy consulting firm Earth Track, which tracks government energy subsidies, said investments to venture capital projects raise important questions. "Is the venture capital firm itself still having a lot of risk and money on the table?" Koplow asked. "When you get easy federal money, it actually can crowd out and worsen the discipline and due diligence."

## **READY ACCESS TO THE WHITE HOUSE, OBAMA, CHU**

From California, Westly frequently finds his way to the nation's capital.

In October 2009, he spent two days visiting The White House, [records show](#), the first a meeting with Nancy Hogan, Director of the Office of Presidential Personnel. Hogan's office referred calls to the White House, which said Westly met her "to discuss potential opportunities for service within the Administration related to green energy policy."

The next day, Oct. 27, Westly spent 30 minutes with Chief Technology Officer Anesh Chopra, whose duties include job creation. Chopra said he had met Westly in California, and that the venture capitalist came mostly to hear about Chopra's new role in government. "He shared with me in that meeting he's very passionate about clean energy and clean technologies," Chopra said. "He mostly listened. He wanted to hear what I was doing."

Chopra said they didn't discuss grants or loans. "The White House does not intervene at all on any particular grant programs, procurement activities. We are policy advisors," said Chopra.

White House records also list Westly among the president's guests at the June 2, 2010 Gershwin Award ceremony honoring Paul McCartney. The concert, in the East Room of the White House, included tributes from Stevie Wonder and Emmylou Harris.

In August 2010, Westly was appointed to the Secretary of Energy Advisory Board, along with academics and current or former executives from Lockheed Martin, IBM, DuPont and United Technologies Corp. "They will be providing their expertise and experience at a critical time for our country as we chart a new course toward a clean energy future," Chu said in a statement.

The White House said it "intentionally placed the board as a potential fit for Westly, communicated that to DOE staff, and referred Westly to the Department," wrote spokesman Cherlin.

In the board's introductory meeting in September, Westly was in attendance as the discussion included a DOE presentation on how the Recovery Act "has positioned the Department of Energy to take a different role in Clean Energy Deployment" — and how the department needs to leverage grants, tax incentives and loans, the meeting minutes show. Then Jan. 20, Westly led a subcommittee exploring ways to incentivize building energy efficiency. "Member Westly will compile a menu of options for overall building efficiency and bring it back to the group for discussion," the minutes say.

In his interview with Bloomberg West TV, Westly was asked where his company was putting its money. "But one of the areas that is perhaps least talked about that we like most, is energy efficient building materials, green building materials," he said. "You are going to see a revolution in clean building materials."

He is backing that talk with investments. In February, The Westly Group took part in a \$10 million round of financing for Soladigm, a developer of energy-efficient glass for buildings. A Westly Group managing partner joined Soladigm's board of directors.

As a member of Chu's Advisory Board, Westly is allowed to discuss policy issues that could impact venture capitalists like himself. Energy department policy states only that he is not to take part in matters that would directly affect The Westly Group.

The department said it sought Westly's expertise as a venture capitalist. Asked about his investment in green building materials even as he leads Chu's committee on the topic, the department said Westly's investments were factored in when deciding his role.

"The Secretary of Energy Advisory Board is meant to provide advice to the Secretary on energy policy and on the overall direction of the Department of Energy," spokeswoman Stephanie Mueller wrote in January.

Chu did not respond to an interview request in January, and on March 10 said he had no time to talk. "The Secretary's schedule is unfortunately packed for the next several weeks so he won't have time for this," the department wrote.

The Center filed a Freedom of Information Act request for correspondence between Westly and the Department of Energy. While the department released some records last week, it cited privacy concerns as reasons for withholding three pages of Westly's personal financial information, as well as much of the contents of emails detailing discussions between Westly and the Energy Department's legal counsel.

The records do show that the Obama administration asked Westly to co-host events in March 2010 for Chu and senior advisor Valerie Jarrett, each of whom had spoken that month at Stanford University, and for Jim Messina, Obama's 2012 campaign manager — and that Westly wasn't shy about mentioning his connections.

"Please forgive the delay on this, but the Administration has asked me to co-host events for Valerie Jarrett (last Thursday) and Jim Messina and Secretary Chu (both of which are tomorrow) so things have been a bit busy on this end," Westly wrote to Sue Wadel, the Energy Department lawyer conducting his conflict of interest review for the board.

"The good news is that we will have good turn-outs for all events!" said Westly's March 2010 email.

In October, two months after his appointment to the energy board, Westly helped Obama once more, as Democrats nationwide struggled to win seats amid the battered economy. At a guesthouse on his Atherton property, 30 miles south of San Francisco, Westly raised money for San Francisco District Attorney Kamala Harris' successful bid to become state attorney general.

Then, at his main home that October evening, Westly sought funds for the Democratic National Committee. "It's an extraordinary honor to host the president at your home," Westly told local reporters. "And I've never seen the president more pumped up."

...wife rubbed shoulders with the President and Mrs. Obama at the Jan. 19 state dinner at the White House. The menu was "Maine lobster, dry-aged rib eye and 'An Evening of Jazz.'" Then, Westly connected with Doerr's estate.

...White House official said, was "part of our ongoing dialogue with the business community to work together to win the future, strengthen our economy, support entrepreneurship, and get our economy back to work."

...and high tech executives broke bread over "our shared goal of promoting American innovation," said, along with Obama's "commitment to new investments in research and development to create clean energy."

...good things ahead.

...he had three companies go public last year alone. It was a banner year," he told Bloomberg. "This year is going to be better."

[HuffPost Hill newsletter!](#)

# Suppliers build lobbying clout: Among goals: Diesel, gas taxes

[Martin Walsh](#)

Like

government bailouts, supplier loan programs and technology funding from the federal government. That clout has been moving farther down the supply chain as automotive suppliers have stepped forward to sway opinion in Washington, D.C.

Suppliers are sending more people -- and money -- to Washington to push for an equal seat at the government bargaining table.

In January, representatives from **BorgWarner Inc.**'s and **Robert Bosch LLC**'s lobbying coalition -- **Coalition for Advanced Diesel Cars** -- hosted new members of Congress at a panel to lobby on a new transportation bill being debated in Congress.

"We saw the increased role of government in the industry and realized we needed to be actively involved," said Scott Gallett, BorgWarner's vice president of marketing, public relations, communications and government affairs. "We needed more awareness of the things affecting us specifically and where it was our responsibility for us to try to influence what was happening."

Diesel fuel is taxed 6 cents higher than gasoline, and Farmington Hills-based Bosch and Auburn Hills-based BorgWarner manufacture clean diesel technology across Europe that could help automakers meet future emissions standards in the states, Gallett said.

The industry crisis over the past few years galvanized the supply base to become more personally involved in the role suppliers play in technology," said Ann Wilson, senior vice president of government affairs for the supply base's Washington-based political organization, the **Motor & Equipment Manufacturers Association**.



## California's clean energy future threatened by federal delays, state officials say

The U.S. Department of Energy is accused of foot-dragging in approving loan guarantees to finance several major projects worth an estimated \$30 billion.

By Marc Lifsher, Los Angeles Times

July 28, 2010

Reporting from Sacramento

Plans for a massive expansion of clean energy in California are being jeopardized by federal foot-dragging, according to state officials who say that more than 20 nearly shovel-ready solar and wind projects are being held up by the U.S. Department of Energy.

Seven major solar-mirror projects — enough to provide power to 3 million Southern California homes — along with plans for at least a dozen wind-turbine and solar-panel complexes have been cleared or almost cleared by state authorities and the U.S. Department of Interior.

The projects are valued at as much as \$30 billion, according to estimates by Gov. Arnold Schwarzenegger's office.

But the Department of Energy's laborious procedures to guarantee loans threaten to stymie construction financing for many of the projects, and builders could lose out on more than \$10 billion in federal stimulus funding if they can't start digging by the end of the year.

At stake are more than 12,000 new, high-paying construction and manufacturing jobs and the opportunity to replace a large portion of the state's fossil fuel-powered electric generation with nonpolluting energy.

Schwarzenegger, in a letter to Energy Secretary Steven Chu last week, said the delays in getting loans approved threatened state plans for a tenfold increase in solar-thermal power output, the biggest jump in almost 30 years.

"Without immediate and urgent attention from the DOE, many of these projects will not be financed and built," Schwarzenegger wrote.

Chu's agency said it was committed to speeding action on loan guarantees while still protecting



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## THE \$25 BILLION AUTO LOAN PROGRAM

### VALUABLE INFORMATION FOR OESA MEMBERS ON THE \$25 BILLION AUTO LOAN PROGRAM

**Posting  
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06.23.09

Administration Awards First Three Auto Loans  
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#### 1) Changes to Application Process for Dept. of Energy's ATVMIP

Late on Friday, March 6, 2009, the Department of Energy published a [press release](#) indicating that they were changing the application process in order to expedite review and approval of Advanced Technology Vehicle Manufacturing Incentive Program loans (auth. by EISA Section 130).

The DOE stated the department will consider and evaluate substantially complete applications as and when they are submitted. DOE also indicated they will make decisions and close loans at any time. DOE said, "Applications submitted after the first tranche deadline December 31, 2008, will be treated in the same manner as applications submitted during the first tranche period."

**SUGGESTED ACTION:** *It is suggested, therefore, that those companies planning to submit by the originally scheduled March 31, 2009 "second tranche" deadline, you would be advised to submit as soon as your application is **substantially complete** (as described in 10 CFR Part 611).*

#### 2) Summary of MEMA meeting with DOE Official

On Thursday, March 5, 2009, Ann Wilson met with DOE Official Laoban Seward, who manages the ATVMIP. During the meeting several topics were discussed, including the recent grant funding and an update on the first tranche applications.

**Advanced Batteries & Components Grant** - About 1/3 of the grant funds are for advanced batteries and about 1/3 are for related components. DOE indicated these projects are a priority. DOE will issue a grant announcement. MEMA expects a final grant announcement very soon and will notify members as soon as it becomes available.

**Update on First Tranche Applications** - There are 25 applications left, 20 of those are from suppliers. It was made clear that suppliers will receive some loan program funding. Also, of interest, unless a project is considered a "Greenfield," NEPA will be less problematic. (Note, a substantially complete application must still have the required documents as described in the Interim Final Rule.)

DOE also indicated that a change in the application process was coming (see item 1).

**More Funding for ATVMIP** - MEMA will consider pursuing legislative budget vehicles on which to attach more funding for the ATVMIP. This issue is one of several MEMA will address during its **6th Annual Legislative Summit** (April 29-30 in DC). Be part of the process and register today. [Click on link to get more information.](#)

OESA and MEMA staff have consolidated information on the loan program. **Although there is no official application form**, the files and links below should be valuable to members that are looking to apply for the loan program.

1. DOE ATV Manufacturing Loan Program Public Meeting  
December 5, 2008  
[DOE Minutes](#)
2. DOE ATV Manufacturing Loan Program Public Meeting  
December 1, 2008

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Tesla Motors was one of the companies selected to receive loans from an Energy Department program meant to create jobs and spur development of fuel-saving cars. Other recipients include Ford Motor Co., Nissan North America and Fisker Automotive. Credit: Emma Schwartz/CPI

An Energy Department loan program meant to create jobs and spur development of fuel-saving cars — bestowed with \$25 billion in public money — lacks clear benchmarks to ensure taxpayers' dollars are properly spent or that the goals are achieved, a new Government Accountability Office report concludes.

Short of funds, the program might not even be able to lend the full \$25 billion approved by Congress — creating even fewer jobs than envisioned.

This latest criticism of Energy Department grants and loans follows earlier inquiries that have raised questions about whether the Obama administration is favoring certain companies in awarding federal aid, including money intended to stimulate the economy by creating jobs.

As the Center for Public Integrity has reported, a number of green firms financed by major fundraisers to President Obama's 2008 campaign — such as California politician-turned-venture capitalist Steve Westly — obtained hundreds of millions of dollars in federal grants, loans

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In particular, investigators found the department "locks performance measures" allowing it to assess success in "advancing automotive technology and protecting taxpayers' financial interests."

The GAO also concluded that the department may not be able to loan the full \$25 billion because of higher-than-expected credit subsidy costs associated with earlier loans, "in part, a reflection of the risky financial situation of the automotive industry at the time the loans were made."

"As a result of the higher credit subsidy costs, the program may be unable to loan the full \$25 billion allowed by statute."

The report comes amid escalating scrutiny of spending in a department infused with \$35 billion in federal stimulus money to complement its annual \$28 billion budget.

Last year, the GAO chided the Energy Department for its handling of other loan programs geared toward new technologies and reducing emissions, finding that the department "had treated applicants inconsistently in the application review process, favoring some applicants and disadvantaging others."

The Energy Department's inspector general, Gregory Friedman, said his office has 64 open investigations centered on stimulus spending. They include "the directing of contracts and grants to friends and family," Friedman told the House Energy and Commerce Subcommittee on Oversight and Investigations earlier this month.

And, a joint investigation by the Center for Public Integrity and ABC News found that department grants, loans and loan guarantees have flowed to energy firms financially supported by fundraisers for President Barack Obama. The White House said political connections play no factor in the contract awards.

The ATVM program has faced questions from companies shut out from its money flow. To date, 130 companies have applied for funding yet just a handful have won the loans.

One of the firms turned down for funding in that loan pool complained in a five-page letter to Energy Secretary Steven Chu in September 2009 that it had been given no reason for its rejection and had to call the Energy Department multiple times to learn what happened. "DOE reviewers never even talked to the founder, inventor, engineers, project leads or primary contractors to obtain additional information," said the letter from the California electric car maker, XP Vehicles, Inc., obtained under the Freedom of Information Act.

Efforts to analyze the criteria the Energy Department has used to select the companies that have received federal loans or loan guarantees have proved challenging, even for government auditors.

The author of the GAO's recent energy reports, Frank Rusco, said in an interview that Energy Department officials used an opaque process to select loan recipients in programs the GAO explored last year. He said the agency could not, or would not, explain why some companies were given a quick green light for approval, while others waited years for a response.

"I think it's problematic," Rusco said. "I think they need to have a systematic, transparent and equitable process. And I think if they're not seen to have that, it's going to create issues, it's going to create competing centers. And there may be competing centers that are still there, but not

ever, executive director of the Energy Department's loan programs office, to set up a rigorous application screening process and closely monitor the flow of money.

But, said the department, it should be doing more, particularly with so much engineering expertise to aid ATYM staff in monitoring the projects. DOE wants to become adequately informed about the technical progress of the projects. "Thus, DOE cannot be assured that the projects are on track to deliver the energy they are in a position to require the borrowers to make any connections in a timely and efficient manner."

This story was a collaboration between the reporter for *AEC News* and the reporter for *Atomic Integrity*.



Justin Sullivan / Getty Images

FREMONT, CA - MAY 31: Republican presidential candidate and former Massachusetts Gov. Mitt Romney speaks during news conference in front the shuttered Solyndra solar power company's manufacturing facility May 31, 2012 in Fremont, California. The company filed for bankruptcy in 2011 after receiving \$535 million in federal loan money. (Photo by Justin Sullivan/Getty Images) \*\*\* SC5TPKX \*\*\*

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"dynamism," "entrepreneurial spirit."

If you go to the White House website, the president's May 26, 2010, speech is billed as "remarks on the economy." For some reason, Obamaland had chosen to showcase how the administration was boosting economic recovery by staging an event at a corporation that had never turned a profit and was building the new plant with the help of a \$528 million federal loan.

A month after Obama came to Fremont, Solyndra canceled its \$300 million public offering. The day after the November 2010 election, Solyndra announced it would

Mitt Romney came to stand on a weed-infested patch of dirt in front of the shuttered Solyndra plant on Thursday. If you stood at the right angle, you could look past Romney's shoulder and see a big red "for sale" sign draped on the building, dubbed by Romney the "the Taj Mahal of corporations."

Two years ago, President Obama came to Solyndra under very different circumstances. The solar-power corporation was completing a second factory that created about 3,000 temporary construction jobs and was expected to provide 1,000 permanent production jobs. Gov. Arnold Schwarzenegger was on the scene. The large crowd of hard-hats and preening capitalists buzzed in the glow of presidential power.

"It's here that companies like Solyndra are leading the way toward a brighter and more prosperous future," said the president as he lauded companies like Solyndra as "the true engine of economic growth." Robust words rolled off his tongue - "ingenuity,"

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other hazardous materials examination services. These services are for determining the DOT transportation classification, including the proper shipping name, hazard class and division, and compatibility group for explosive substances and articles.

A. Gam Butcher and Kirt N. Sasser are authorized to witness the UNDOT tests and recommend classifications to the DOT. Authorization by the DOT required a thorough examination of our explosive expertise, regulatory interpretation/application experience, and testing protocols.

DOT Testing is usually performed on a Firm Fixed Price (FFP) basis. Consulting, witnessing, and providing recommendations for DOT Classifications are performed according to the SMS rate schedule plus burdened expenses. A proposal for testing the material(s) is provided after discussing the intent and extent of required testing. The cost of testing varies depending on the tests required, the nature of the material(s), and the test location. SMS can test your materials at our facilities, or we can travel to your testing facility and witness testing.



We usually anticipate 1-2 weeks for the testing to be completed once the materials have arrived at the test facility. SMS will deliver a report approximately 1 week after the tests



## Advanced Biofuel Officials Seek Fix For DOE Loan Guarantee Program

In a letter last week to President Obama and to the House and Senate leadership, three advanced biofuel trade groups warned they are being cut off from vital federal loan guarantees because the criteria used to administer the program do not apply to advanced biofuels, biochemicals and bioproducts projects.

Loan guarantees are essential to unlock funding for advanced biofuels, biochemicals and bioproducts, wrote the Advanced Biofuels Association, the Algal Biomass Organization and the Biotechnology Industry Organization. "Unfortunately, no loan guarantees have been issued by DOE (Department of Energy) to date for this sector and few, if any, will be issued until significant statutory and regulatory changes are made."

The groups asked the administration to give additional guidance to DOE Loan Program officials, warning that without new direction, "congressional intent to ensure near-term commercialization—and associated petroleum displacement—of advanced biofuels and other bio-based chemicals and products would be thwarted."

"Entrepreneurial companies are ready to scale up advanced biotechnology solutions for biofuels, biochemicals and biobased products, but institutional lenders are reluctant to fund new technologies," said Brent Erickson, executive vice president of BIO's Industrial & Environmental Section, in a September 22 release announcing the letter to the White House and Congress.

"Congress established this loan guarantee program and extended it through the American Recovery and Reinvestment Act to help companies with cutting-edge energy and manufacturing technologies secure necessary private financing. While the program has worked for some energy generators, it has not worked for advanced biofuel and biorefineries."

Advanced Biofuels Association President Michael McAdams added: "We must have a government that not only has good intentions but can also successfully execute and deliver on the original objectives of programs developed by Congress. The companies we represent are at a critical juncture in their ability to deploy commercial gallons and the loan guarantee programs, both at the Department of Energy and the Department of Agriculture, can play a significant role in making a vision become a reality."

"While we appreciate the significant financial support given by the federal government to advance research in the field of algae, the reality is that there are a number of algae companies who are past the initial research phase and ready to begin commercialization efforts," said Mary Rosenthal, executive director of Algal Biomass Organization. "These commercialization efforts are expected to create hundreds of thousands of jobs in the next decade, including in parts of the country hardest hit by the recession. The sooner we can get these projects funded, the quicker we can put people to work."

Among other issues, the association chiefs said the White House needed to issue formal guidance to DOE clarifying the criteria for "reasonable prospect of repayment" for advanced biofuels is needed. They said DOE is misinterpreting that requirement under the 2005 Energy Policy Act (EPAAct), Section 1702(d)(1), to mean "certain prospect of repayment" and is demanding long-term, fixed-price offtake agreements to fulfill it.

That may be reasonable for wind, solar and geothermal power generators, given the structure of electricity markets, but the biofuels market is different, the groups stressed. Most transportation fuels, including biofuels, are sold in spot markets or under short-term supply agreements. Long-term supply agreements are rare.

## Siry Slams DOE Loan Program For "Stifling Innovation"

By Edward Niedermeyer on December 1, 2009



Former Tesla PR honcho Daryl Siry lays into the Department of Energy's Advanced Technology [Vehicle Manufacturing Loan](#) program (ATVML) at Wired's [Autopia blog](#), taking the \$25b program to task for "stifling innovation." At its core, his argument is a simple one:

Startup companies that enjoy DOE support, most notably Tesla Motors and Fisker [Automotive](#), have an extraordinary advantage over potential competitors since they have secured access to capital on very cheap terms. The magnitude of this advantage puts the DOE in the role of kingmaker with the power to vault a small startup with no product on the market -- as is the case with Fisker -- into a potential global player on the back of government financial support.

As a result, the vibrant and competitive market for ideas chasing venture capital that has been the engine of innovation for decades in the United States is being subordinated to the judgments and political inclinations of a government bureaucracy that has never before wielded such market [power](#).

All of which sounds very TTAC... In fact, our lengthy Bailout Watch series [began](#) with a similar analysis of the ATVML program (albeit with a Detroit-focused twist). Unfortunately, Siry's intentions in this case are questionable -- as are his conclusions.

At the very bottom of his editorial, Siry reveals himself to be a "special advisor to Coda Automotive," the EV startup born from the ashes of Miles Electric [Vehicles](#). That Coda has not sought an ATVML handout (because all its manufacturing is done in China) is presumed to give Siry a free pass on conflict-of-interest questions, but Siry's critique relates directly to the private capital market as well. Siry writes:

The proposition is so irresistible that any reasonable person would prefer to back a company that has received a DOE loan or grant than a company that has not. It is this distortion of the market for private capital that will have a stifling effect on innovation, as private capital chases fewer deals and [companies](#) that do not have government backing have a harder time attracting private capital. This doesn't mean deals won't get done outside of the energy department's umbrella, but it means fewer deals will be done and at worse terms.

Translation: Coda can't raise funds without DOE backing, a reality the company petulantly hinted at in the [most recent post](#) on its corporate blog. There, the company lashed out at analyst suggestions that DOE loans would be best spent on established automakers, and now Siry is bashing the DOE's "kingmaking" of "small startups with no product on the market." So which is it? The answer can be found in Siry's conclusion:

A potential solution to this problem may seem counter-intuitive. The best way to avoid market distortion would be for the DOE to cast the net more broadly and provide loans and grants to a larger number of companies — which ironically means being less selective. Subject to the existing equity matching requirement, this would allow the private markets to function more effectively in funding a broader range of companies and driving more innovation. Several innovative companies with great potential have been in the DOE pipeline for many months. Perhaps it is time for the DOE to stop playing favorites and start spreading the love.

Give out money to more firms, less selectively. What a plan. But if Siry is suggesting that Coda Automotive represents the kind of "innovation" being "stifled" by the ATVML program, he's able to see far more innovation in selling an electrified Chinese Hafei [sedan](#) with 100 miles of range for \$45k than we do (he doesn't explicitly, preferring Aptera as a poster child for stifled innovation). The reality is that the EV sector is crammed with as many [hucksters](#) and wannabes as legitimate innovators, and "spreading the love" is more likely to result in wasted investments. In theory we agree that DOE "kingmaking" distorts the market, and elevated some questionable firms to near-player status... but interpreting those results as a reason for the DOE to be "less selective" with its lending makes even less sense. Unless, of course, you work for a firm that might benefit from lowered loan standards.

As a lesson in the ATVML's unintended consequences, Siry's editorial is dead-on. As a roadmap for future DOE policy, however, it comes up way short.

Posted in [Electric Vehicles](#), [Government](#), [Green](#), [News Blog](#)  
Tagged as [ATVML](#), [Coda](#), [DOE](#), [electric car](#), [EV](#), [Fisker](#), [Tesla](#)

from Adam, but I can tell you, he's spot on. Just because he stands in a more "loving" DOE strategy doesn't mean he's wrong about "makingmaking." \$25B program, and they've only given out 8.5B of it. I'm not a C, telling some companies they "passed" certain viability tests, and then asking for further documentation. Asking ridiculous technical requirements of other companies whose vehicles only exist in their dreams. A lot of "wannabees" trying to suck on the government's teat, but the "real deals" are going to die a slow and painful death because of the government's inability to decide who gets the \$\$\$\$. Believe me, they can't raise equity in the automotive industry, it just won't happen. However, I'm guessing China will come to the U.S. to see a chance to invest in a viable business plan. And yes, take a little bit of salt because I stand to gain from the DoE approving at least a few more companies when the inside of the process, I can assure you, it has very little to do with a business plan and, like everything else, it's quite political.

# Federal funds flow to clean-energy firms with Obama administration ties

By [Carol D. Leonnig](#) and [Joe Stephens](#),

Sanjay Wagle was a venture capitalist and Barack Obama fundraiser in 2008, rallying [support](#) through a group he headed known as [Clean Tech for Obama](#).

Shortly after Obama's election, he left his California firm to join the Energy Department, just as the administration [embarked on a massive program](#) to stimulate the economy with federal investments in clean-technology firms.

Following an enduring Washington tradition, Wagle shifted from the private sector, where his firm hoped to profit from federal investments, to [an insider's seat](#) in the administration's \$80 billion clean-energy investment program.

He was one of several players in venture capital, which was providing financial backing to start-up clean-tech companies, who moved into the Energy Department at a time when the agency was seeking outside expertise in the field. At the same time, their industry had a huge stake in decisions about which companies would receive government loans, grants and support.

During the next three years, the department provided \$2.4 billion in public funding to clean-energy companies in which Wagle's former firm, [Vantage Point Venture Partners](#), had invested, a Washington Post analysis found. Overall, the Post found that \$3.9 billion in federal grants and financing flowed to 21 companies backed by firms with connections to five Obama administration staffers and advisers.

Obama's program to invest federal funds in start-up companies — and the failure of some of those companies — is [becoming a rallying cry](#) for opponents in the presidential race. Mitt Romney has promised to focus on Obama's "record" as a "venture capitalist." And in ads and speeches, conservative groups and the Republican candidates are zeroing in on the administration's decision to extend \$535 million to the now-shuttered [solar firm Solyndra](#) and billions of dollars more to clean-tech start-ups backed by the president's political allies.

White House officials stress that staffers and advisers with venture capital ties did not make funding

those companies.

David Gold, a venture capitalist and critic of Obama's investments in clean tech, said that even if staffers had been removed from the final decision-making, they had the kind of inside access to exert subtle influence.

"To believe those quiet conversations don't happen in the hallways — about a project being in a certain congressman's district or being associated with a significant presidential donor, is naive," said Gold, who once worked at the Office of Management and Budget. "When you're putting this kind of pressure on an organization to make decisions on very big dollars, there's increased likelihood that political connections will influence things."

Energy Department spokesman Damien LaVera said the companies won awards based on merit, not political connections. He said the staffers and advisory board members reviewed by the Post had no role in funding decisions, nor did they have any personal financial stake in the companies. One of those administration advisers had first been appointed to his position by the Bush administration, LaVera said.

"As is evident from the [10-month long congressional investigation](#) into Solyndra, Energy Department loans and grants are decided on the merits," White House spokesman Eric Schultz said. "What's more, these are all professionals with expertise in clean-energy science, finance or both — but none of them play a decisional role in DOE awards and none of them are in positions of regulating the industry."

### **Venture capitalists arrive**

During the 2008 campaign, the [venture capital industry lined up behind Obama](#) as he vowed to spur clean-technology development. Obama raised more than twice the venture capital contributions of his opponent, Republican candidate John McCain.

Known for making billions of dollars in the 1990s on Internet startups, venture firms in 2006 were rapidly switching to invest in clean tech. Legendary venture partner John Doerr, a leading early investor in Google and Amazon, that year called the clean-energy sector the next great profit center, "[the mother of all markets](#)."

With the 2008 economic crisis, new private investment in fledgling clean-tech companies withered. But passage of the \$787 billion [stimulus package offered new opportunities](#) to launch and grow those firms, with \$80 billion set aside for clean energy and energy-efficiency efforts.

Suddenly flush with cash, the Energy Department was under orders to ramp up quickly and get money out to promising companies. The administration [tapped industry players](#) to take on key Energy Department roles, both as agency staffers and outside advisers on agency boards.

Wagle, then 38, [took a job](#) as a stimulus adviser in the agency's recovery act office. Officials say his role did not involve making funding decisions for companies tied to Vantage Point.

Private investors cheered the administration for hiring industry colleagues. In a 2009 article, venture firm leader Jim Matheson said Wagle, along with another Washington-bound venture capitalist, [David Danielson](#), would help ensure commercial successes from "the steady flow of dollars coming out of D.C."

Wagle's former employer had invested in several companies that received federal money: [Brightsource](#).

which won a \$1.6 billion federal loan for a solar-generating plant; Tesla Motors, which won a \$465 million loan to build electric cars; and biofuels firm Mascoma, which in 2011 received \$80 million for a Michigan ethanol plant.

Wagle recently returned to the California venture capital industry to work as an investor and clean-tech adviser. Reached at his home, he declined to comment. Vantage Point Venture Partners, renamed Vantage Point Capital Partners, did not respond to requests for comment.

Danielson, formerly of [General Catalyst](#), joined an Energy Department office whose mission was to fund breakthrough energy technologies. Officials say he had no role in arranging \$105 million in funding for three General Catalyst portfolio firms.

[David Sandalow](#), a former Clinton administration official and Brookings Institution fellow, had been paid \$239,000 for consulting work for a venture capital firm, Good Energies, in 2008 before joining the Energy Department as assistant secretary for policy and international affairs, his disclosure form shows.

A Good Energies-backed firm, [SolarReserve](#), won a \$737 million agency loan. Officials say Sandalow played no role in arranging it and LaVera, speaking on behalf of Sandalow, said the assistant secretary had no financial interest in Good Energies or SolarReserve.

The Energy Department came under criticism from Republicans earlier this year when agency e-mails raised questions about a possible conflict of interest involving Steven J. Spinner, a former department loan adviser who disclosed that his wife worked for Wilson Sonsini, a Silicon Valley law firm that handled funding applications for several clean-tech companies.

[Wilson Sonsini's clean-tech clients](#) reaped \$2.75 billion in Department of Energy grants and financing, the Post analysis found.

One of the firm's clients was Solyndra. Republicans have accused the Obama administration of favoring the risky company because its leading investor was tied to a major Obama donor.

Wilson Sonsini had its own connection to the White House: the firm's chief executive, John Roos, was a top [bundler](#) for Obama's 2008 campaign.

Before joining the administration, Spinner, a venture investor and start-up adviser, also helped raise \$500,000 for Obama as a member of his national campaign finance committee. He has pledged to raise a half-million dollars or more for Obama's reelection effort.

Once inside the agency, Spinner agreed not to discuss loan matters involving Wilson Sonsini clients. But e-mails show he urged career officials to resolve delays in the Solyndra loan, and also [defended the financial prospects of Solyndra](#) to a White House deputy before its federal loan was approved.

Spinner left the Energy Department in the fall of 2010. He did not respond to requests for comment. The department said Spinner was not involved in the company's application review or loan approval.

A Wilson Sonsini spokesman said the firm does not believe its employment of Spinner's wife influenced Energy Department decisions.

## **Investors as advisers**

the release of agency and White House e-mails related to part of the Solyndra investigation show that venture capitalists who held advisory roles with the Energy Department were given access to Obama's top advisers.

Steve Westly, an Obama fundraising bundler for both his 2008 and 2012 campaigns, is a founder of the venture firm Westly Group and served part time on Energy Secretary Steven Chu's advisory board.

The e-mails show that [Westly communicated with senior White House officials](#), including Obama adviser Valerie Jarrett, voicing concerns about the president's planned appearance at Solyndra.

Westly's firm also fared well in the agency's distribution of loans and grants. Its portfolio companies received \$600 million in funding. LaVera said Westly had no role in the funding decisions.

[David Prend](#) also surfaces in the e-mails as a venture capital investor who had White House access.

His firm, [Rockport Capital Partners](#) in Boston, was among the investors in Solyndra, with a 7.5 percent stake. The e-mails show him asking a White House aide to "help get the word out" about Solyndra and asking for help on another Rockport portfolio company. They show he and a group of venture capital investors met with new White House climate czar [Carol Browner](#) before Solyndra's loan was tentatively approved, and the White House confirmed that the subject of the company came up briefly.

Prend had worked closely with the Energy Department since the Bush administration, when he was first appointed to an advisory panel for the National Renewable Energy Laboratory. He continued to advise the Obama administration, while also chairing a panel that helps advise the department on solar technologies.

The agency provided \$550 million to several firms in which Rockport had invested at the time. The department gave an additional \$118 million grant to an electric-car battery company, EnerI, that was partnered with Rockport portfolio [car company Think](#). (Rockport soon after invested in EnerI.) [EnerI filed for bankruptcy](#) protection last month.

LaVera and Chad Kolton, a Rockport spokesman, said that Prend's advisory role was separate from stimulus programs and had no bearing on agency decisions about companies backed by Rockport.



# Solyndra, explained

Michael Weinreb | 05:30 AM ET, 06/01/2012

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back in the news, with former Massachusetts governor **Mitt Romney** making a surprise on Thursday at the California headquarters of the failed energy company. Republicans have argued that the Obama Administration's investment in Solyndra is part of a failed energy policy, shady dealings by the White House.



U.S. presidential candidate and former Massachusetts Governor Mitt Romney speaks at the former Solyndra headquarters in Fremont, California, May 31, 2012. REUTERS/Seck Deferback

...actly happened with Solyndra?

...as founded in Silicon Valley in 2004. The company planned to build solar panels without... While Solyndra's panels were more expensive to make, they were supposed to be cheaper to... the skyrocketing price of polysilicon gave the company a chance to compete in the market.

But Solyndra was already in trouble.

In February of 2008 the price of polysilicon began to fall sharply, while Solyndra's claims of cheaper installation costs were also in doubt. Chinese firms started to crowd out American ones on the solar panel market. Natural gas prices also fell, making investments in more or comparatively more expensive alternative energy less attractive.

Management at the firm also made questionable spending decisions, wasting loan money on state-of-the-art equipment that went unused.

In March of 2010, an independent audit by PriceWaterhouseCoopers questioned whether Solyndra could survive as a business, and even administration staff and close Obama allies in the venture capital world warned the White House about whether the company was a good bet, according to internal administration emails.

Obama visited the company in a high-profile press event in May 2010, despite some of these warnings. The Energy Department persuaded the firm to delay layoffs until after the 2010 midterm elections, according to those emails.

The DOE learned in December 2010 that Solyndra could not make its loan payment, in violation of its federal loan deal. Solyndra executives had been privately warning administration officials that the firm was at risk of liquidation.

Yet in February 2011, the department restructured the loan, with some investors agreeing to provide Solyndra \$75 million more in financing.

Part of the deal was that private investors, including family funds connected to Obama fundraising bundler George Kaiser, would be paid back before the government if Solyndra collapsed. The Kaiser-tied funds were already the largest investors in Solyndra.

In August 2011, the company filed for bankruptcy.

Congressional Republicans had been investigating the company's loan since early in 2011. Republicans, in particular the outside group Americans for Prosperity, have attacked Obama repeatedly on the issue, suggesting he was helping friends by financing Solyndra because of Kaiser's role as a major Obama fundraiser.

Internal e-mails show political considerations infused almost every level of the decision-making on granting the Solyndra loan and later administration efforts to keep the company afloat. But none of the records released to date show the White House or top administration leaders pushing the loan specifically because of Kaiser's stake in the firm.

Nearly \$4 billion in federal grants and financing, however, flowed to 21 companies backed by firms with connections to five Obama administration staffers and advisers on energy policy, according to a Post examination.

Democrats argue that the scale of the GOP investigation is unwarranted and politically motivated, given that dozens of companies have not yet been examined. Rep. Jim Cooper (R-C) also suggested earlier this year

# In Role as Kingmaker, the Energy Department Stifles Innovation

By [Darryl Siry](#) | December 1, 2009 | 8:30 am | Categories: [EVs and Hybrids](#)



Of all of the Department of Energy programs intended to advance the green agenda while stimulating the economy, the Advanced Technology Vehicle Manufacturing incentive to spur the development of cleaner, greener automobiles is perhaps the most ambitious. But it has a downside.

The energy department has approved direct loans to Nissan, Ford, Tesla Motors and Fisker Automotive totaling about \$8 billion out of a budget of \$25 billion. The magnitude of this program dwarfs other DOE campaigns like the \$2.4 billion given to battery and electric vehicle component manufacturers and the \$4 billion disbursed for "smart grid" projects.

To the recipients the support is a vital and welcome boost. But this massive government intervention in private capital markets may have the unintended consequence of stifling innovation by reducing the flow of private capital into ventures that are not anointed by the DOE.

To understand this apparent contradiction, you have to look at the market from the perspective of venture capitalists looking to deploy investors' capital and startups looking to attract it.

Venture capitalists evaluate a company on the basis of whether they think it will succeed and generate returns for their portfolios. While this evaluation is a function of many things, one key question is how much more capital the company will need to get its product to market or a liquidity event so that the venture capitalist can see a return. The more capital it needs, the more dilutive it will be to the early investors.

In cleantech, and in particular alternative fuel vehicles, the capital requirements for companies bringing a car to market in significant numbers can be extraordinarily high, reaching into the hundreds of millions of dollars if the company wants to build its own manufacturing facilities.

To a venture capitalist, this capital requirement can be daunting. This is why government financing is so attractive. In the case of the [advanced technology manufacturing loans](#), the DOE steps up for 80 percent of the total amount needed. Private sources fund the other 20 percent. This amounts to free leverage for the venture capitalist's bet, with no downside. Hedge funds historically used massive leverage to generate outsized returns, but if the trade turns against them, that same leverage multiplies their downside and can lead to financial ruin. In the case of the DOE loans or grants, the upside is multiplied and the downside remains the same since the most the equity investor can lose is the original investment.

The proposition is so irresistible that any reasonable person would prefer to back a company that has received a DOE loan or grant than a company that has not. It is this distortion of the market for private capital that will have a stifling effect on innovation, as private capital chases fewer deals and companies that do not have government backing have a harder time attracting private capital. This doesn't mean deals won't get done outside of the energy department's umbrella, but it means fewer deals will be done and at worse terms.

According to Earth2Tech, venture capitalist [John Doerr commented on this](#) at the GreenBeat conference earlier this month, saying "If we'd been able to foresee the crash of the market we wouldn't probably have launched a green initiative. Because these ventures really need capital. The only way in which we were lucky I think is that the government stepped in, particularly the Department of Energy. Led by this great administration that put in place these loan guarantees."

Several sources within startup companies seeking DOE loans or grants have admitted that private fundraising is complicated by investor expectations of government support. None would speak publicly due to the sensitivity of the issue and the ongoing application process.

[Aptera Motors](#) has struggled this year to raise money to fund production of the [Aptera 2e](#), its innovative aerodynamic electric 3-wheeler, recently laying off 25 percent of its staff to focus on pursuing a DOE loan. According to a source close to the company, "all of the engineers are working on documentation for the DOE loan. Not on the vehicle itself." Another highly placed source at Aptera told [Wired.com](#) many potential investors wanted to see [approval of the DOE loan](#) before committing to invest.

Startup companies that enjoy DOE support, most notably [Tesla Motors](#) and [Fisker Automotive](#), have an extraordinary advantage over potential competitors since they have secured access to capital on very cheap terms. The magnitude of this advantage puts the DOE in the role of kingmaker with the power to vault a small startup with no product on the market — as is the case with Fisker — into a potential global player on the back of government financial support.

As a result, the vibrant and competitive market for ideas chasing venture capital that has been the engine of innovation for decades in the United States is being subordinated to the judgments and political inclinations of a government bureaucracy that has never before wielded such market power.

A potential solution to this problem may seem counter-intuitive. The best way to avoid market distortion would be for the DOE to cast the net more broadly and provide loans and grants to a larger number of companies — which ironically means being less selective. Subject to the existing equity matching requirement, this would allow the private markets to function more effectively in funding a broader range of companies and driving more innovation. Several innovative companies with great potential have been in the DOE pipeline for many months. Perhaps it is time for the DOE to stop playing favorites and start spreading the love.

*Wired.com contacted the Department of Energy for comment but did not receive a reply.*

*Disclosure: Darryl Siry was the chief marketing officer of Tesla Motors from December 2006 until December 2008 and is a special advisor to Coda Automotive, which has not sought an Advanced Technology Vehicle Manufacturing loan.*

*Photo: Ford Motor Co. Energy Secretary Steven Chu addresses Ford employees on June 23, 2009, after announcing the automaker will receive a \$5.9 billion loan.*

#### See Also:

- [Federal Loans to EV Startups: Foolish Bet or Wise Investment...](#)
- [Obama Saves Aptera's 3-Wheeler Is a Car](#)
- [Feds Lend Fisker \\$528M to Build a Plug-In](#)
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## Midland to Perform Key Support Roles for DOE Loan Programs Office

*Midland to perform key support roles for Department of Energy Loan Programs Office*

Midland Loan Services, Inc. has been selected to perform key support roles in connection with certain loans or loan guarantees by the U.S. Department of Energy (DOE) for federal loan programs that promote alternative energy projects and foster energy independence.

In supporting DOE's Loan Guarantee Program, Midland will serve as the administrative agent or master servicer, as applicable, based on the underlying financing arrangement. In instances where the federal government funds the loan and DOE provides the loan guarantee, Midland will perform certain agent duties and functions, including acting as the administrative agent, collateral agent, custodian and registrar, and transfer agent. For loans funded by third-party lenders and partially guaranteed by DOE, Midland will act as the master servicer.

In supporting DOE's Advanced Technology Vehicles Manufacturing Incentive Program, Midland was selected as a collateral agent for loans from DOE for projects that expand or establish manufacturing facilities to produce qualified advanced technology vehicles or components.

For both programs, PNC will be performing the role of depository bank.

Midland has extensive experience providing loan management, asset management and technology solutions for U.S. government agencies and currently administers approximately 7,600 loans totaling over \$75 billion in outstanding balances.

## R -- Legal Services support the ATVM Loan Program

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**Contracting Office**

Office of HQ PS (HQ)U.S. Department of EnergyOffice of  
Headquarters ProcurementMA-641000 Independence Ave.,  
S.W.WashingtonDC20585

**ZIP Code**

20585

**Solicitation Number**

DE-SOL-0001299

**Archive Date**

2/27/2010

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**Small Business Set-Aside**

N/A

**Award Number**

DE-GC0000013

**Award Date**

2/12/2010

**Awardee**DEBEVOISE & PLIMPTON LLP919 THIRD AVENUE  
NEW YORK NY 10022-3916 USA**Award Amount**

\$33289860

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1

**Description**

Contract number DE-GC0000013 was awarded to Debevoise & Plimpton LLP for legal services to support the Advanced Technology Vehicles Manufacturing Loan Program. The maximum value of the contract is \$33,289,860 over five years from February 13, 2010 - February 12, 2015. This requirement was not set-aside for small businesses.

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**LOW RATE!**

Bright Automotive Inc., an Anderson company that once hoped to become a major hybrid-vehicle player with hundreds of employees in central Indiana, has called it quits.

In a letter to the U.S. Department of Energy dated Tuesday, company executives said they could no longer meet payroll and would cease operations.

The letter, to Energy Secretary Steven Chu and signed by Bright CEO Reuben Munger and Chief Operating Officer Mike Donoughe, is highly critical of the Department of Energy for failing to provide Bright with a \$450 million low-interest loan.

Bright, founded in 2008, said the DOE essentially strung the company along while it tried to land funding through the Advanced Technology Vehicles Manufacturing loan program.

The loan would have been used to finance production of the IDEA, Bright's plug-in hybrid delivery van, which hoped to achieve fuel economy of 100 miles per gallon.

Bright said DOE officials offered four different sets of tentative loan agreements over the three years, but each time beefed up the requirements the company had to meet. The last loan offer, the letter said, "was so outlandish that most rational and objective persons would likely conclude that your team was negotiating in bad faith."

"In good faith we entered the ATVM process, approved under President Bush with bi-partisan Congressional approval, in December of 2008," the letter said. "At that time, our application was deemed 'substantially complete.' As of [Feb. 28], we have been in the 'due diligence' process for more than 1,175 days. That is a record for which no one can be proud."

Bright was founded in January 2008 at the Colorado-based Rocky Mountain Institute and soon opened an engineering facility at Anderson's Flagship Enterprise Center. The company was started by John Waters, who in the 1980s and 1990s helped develop General Motors EV-1 electric car. Few employees remain in Anderson.

Bright also employs about 60 workers in Rochester Hills, Mich., where it opened a technology center about a year ago. GM Ventures, the venture

**CORRECTION TO ATVMLP INTERIM FINAL RULE:**

The ATVM Loan Program would like to make note of the following error in the Interim Final Rule published in the Federal Register (Vol. 73, No. 219) on November 12, 2008:

- On page 66728 Cargo Van fuel economy figures are incorrectly identified as:
  - 24.2 miles per gallon (mpg) for 2005 fuel economy average
  - 30.2 mpg for 2005 mpg x 125%.
  
- The correct numbers are:
  - 19.9 mpg for 2005 fuel economy average
  - 24.8 mpg for 2005 mpg x 125%.

The Kx plug-in electric vehicle in the performance sedan market segment for at least a couple of years. As such, Fisker will be able to establish its brand and build market share. It is important to note that vehicles such as the Toyota Prius or the upcoming Chevy Volt do not compete in the performance sedan market.

### **Proposed Plant Location**

Fisker will build the Kx in the United States. Fisker's choice of the United States as a manufacturing location is based on the strength of the existing workforce and infrastructure, as well as access to a broad supplier base and market.

[REDACTED]

Fisker's requirements for the Kx plant are:

Fisker has identified two potential facilities and currently plans to enter into negotiations with the owners of these sites.

[REDACTED]

If Fisker is unable to reach agreement regarding either facility, then there are other existing facilities [REDACTED] that fit Fisker's core plant criteria.

This project also would include the engineering integration work for the Kx vehicle. Fisker anticipates that the engineering integration would take place at Fisker's headquarters in Irvine California, Fisker's Engineering and Development Center in Pontiac, Michigan, and/or at the site of the manufacturing facility.

*"(c) A detailed explanation of how the proposed project qualifies under applicable law to receive a loan or award under this part, including vehicle simulations using industry standard model (need to add name and location of this open source model) to show projected fuel economy:"*

Fisker Automotive Inc. ("Fisker") is seeking a \$318.8 million loan to reequip a manufacturing facility that will manufacture the Fisker Kx, which would be the second vehicle manufactured by Fisker. Fisker is considering two existing manufacturing facilities for this project:

This proposed loan would cover 80% of the total cost of this project.

This project also would include the engineering integration work for the Kx vehicle. Fisker anticipates that the engineering integration would take place at Fisker's headquarters in Irvine California, Fisker's Engineering and Development Center in Pontiac, Michigan, and/or at the site of the manufacturing facility.

As required by Section 611.101(a), Fisker has certified, to the best of its knowledge and ability, that this engineering integration project satisfies the requirements of the program as set forth in the interim final regulations at 10 C.F.R. Part 611. See Tab 2A. The analysis supporting this certification is set forth below. This analysis addresses three issues: (1) eligibility of the applicant; (2) eligibility of the project; and (3) any supplemental DOE requirements.

### 1. Eligibility of the Applicant

To be eligible, an applicant must meet two criteria: (1) it must be either an "automobile manufacturer that can demonstrate improved fuel economy" or a "manufacturer of a qualifying component" and (2) it must be "financially viable without the receipt of additional Federal funding associated with the proposed eligible project." See 10 C.F.R. § 611.100(a).

Fisker is an eligible applicant because (1) it is "an automobile manufacturer that can demonstrate improved fuel economy" and (2) it is "financially viable without the receipt of additional Federal funding associated with the proposed eligible project."

#### a. Fisker Satisfies the "Automobile Manufacturer" Requirement

For purposes of the ATVM program, Fisker is a new automobile manufacturer - that is, an automobile manufacturer that did not manufacture vehicles in model year 2005. Therefore, Fisker must meet the criteria in Section 611.100(b)(2) of the ATVM program regulations. Under that section, Fisker must demonstrate that "the projected combined fuel economy for the relevant advanced technology motor vehicle that is the subject of the application is greater than or equal to the industry adjusted average fuel economy for model year 2005 of equivalent vehicles, based on CAEP compliance data."

The Fisker Kx is a plug-in hybrid vehicle. As DOE acknowledged in the December 5, 2008 public meeting (transcript, p. 39), there is not yet an approved CAFE test for plug-in hybrids, nor do the interim final regulations prescribe a method for determining the fuel economy of plug-in hybrids. Instead, footnote 8 in the preamble to the interim final regulations states simply that the applicant should submit sufficient information for DOE to determine whether the vehicle meets the required fuel economy level. See 73 Fed. Reg. 66,725.

Consistent with the interim final regulations, Fisker has submitted a fuel economy analysis for the Fisker Kx. See Attachment 1 to Tab 2C. This fuel economy analysis was prepared by Fisker and Quantum Technologies, which produces the powertrain that will be used in the Kx. Fisker and Quantum conducted this analysis using the Powertrain Simulation and Analysis Toolkit ("PSAT") as recommended by DOE in the December 5 meeting (transcript, p. 5). The PSAT modeling data is also attached, in both paper and electronic form. See Attachment 2 to Tab 2C.

The PSAT analysis shows that the combined (highway and city) fuel economy of the Kx is [REDACTED] miles per gallon when the average distance between charges is [REDACTED].

With a total passenger and cargo volume of approximately [REDACTED], and a power-to-weight ratio of [REDACTED] the Kx is included in the "Subcompact Sedan" vehicle class.<sup>1</sup> The 2005 model-year combined average fuel economy for vehicles in this class was 29.6 miles per gallon. See 73 Fed. Reg. 66,727. [REDACTED]

Therefore, Fisker has demonstrated that the "motor vehicle that is the subject of the application" - namely, the Kx - "is greater than or equal to the industry adjusted average fuel economy for model year 2005 of equivalent vehicles."

#### b. Fisker Satisfies the "Financially Viable" Requirement

Section 611.101(l) requires an application to include "an analysis demonstrating that, at the time of the application, the applicant is financially viable without receipt of additional Federal funding associated with the proposed project, and that there is a reasonable prospect that the Applicant will be able to make payments of principal and interest on the loan as and when such payments become due under the terms of the loan documents, and that the applicant has a net present value which is positive, taking all costs, existing and future, into account." This information is included at Tab 2L and is re-stated here for ease of reference.

Section 611.100(c) lists eight criteria that DOE will consider when assessing financial viability.

[REDACTED] places is lower than 0.182, the threshold for a performance subcompact sedan. [REDACTED]

(c) In determining under paragraph (a)(2) of this section whether an applicant is financially viable, the Department will consider a number of factors, including, but not limited to:

- (1) The applicant's debt-to-equity ratio as of the date of the loan application;
- (2) The applicant's earnings before interest, taxes, depreciation, and amortization (EBITDA) for the applicant's most recent fiscal year prior to the date of the loan application;
- (3) The applicant's debt to EBITDA ratio as of the date of the loan application;
- (4) The applicant's interest coverage ratio (calculated as EBITDA divided by interest expenses) for the applicant's most recent fiscal year prior to the date of the loan application;
- (5) The applicant's fixed charge coverage ratio (calculated as EBITDA plus fixed charges divided by fixed charges plus interest expenses) for the applicant's most recent fiscal year prior to the date of the loan application;
- (6) The applicant's liquidity as of the date of the loan application;
- (7) Statements from applicant's lenders that the applicant is current with all payments due under loans made by those lenders at the time of the loan application; and
- (8) Financial projections demonstrating the applicant's solvency through the period of time that the loan is outstanding.

The analysis below considers the eight factors specified in Section 611.100(c) and demonstrates that Fisker meets the financial viability requirements for this program:

1. *Debt to Equity Ratio.* As of the date of this application, Fisker [REDACTED]
2. *EBITDA for Most Recent Fiscal Year.* Fisker's EBITDA for the most recent fiscal year is [REDACTED]
3. *Debt to EBITDA Ratio.* As of the date of this application, Fisker [REDACTED]
4. *Interest Coverage Ratio.* As of the date of this application, Fisker [REDACTED]
5. *Fixed Charge Coverage Ratio.* Fisker's fixed-charge coverage ratio for the most recent fiscal year is [REDACTED]
6. *Liquidity.* Fisker's liquidity as of the date of this application is [REDACTED]
7. *Lender Statements.* As of the date of this application, Fisker [REDACTED]

# Integrity of Fisker Capital Funding is Questioned

Posted by Paul Chesser on Tue, 02/14/2012 - 11:54

and a start-up electric car company that raised more than \$1 billion suddenly fail to meet Department of Energy (DOE) lending standards, to the point where it can no longer draw on an awarded DOE loan and has therefore halted renovation work on a Delaware plant?



One source of curiosity about Fisker Automotive, a high-end manufacturer that apparently has thrown away so much cash that it does not want to move forward with plans to produce an affordable sedan without the assurance that another \$336 million will come forth from private investors. Despite having a reported \$850 million in private investment and \$193 million from that DOE loan, Fisker laid off 65 or so employees last week as DOE froze payments.

The DOE action was attributed to Fisker's failure to attain certain unidentified "milestones." Fisker had projected the delivery of 15,000 cars in 2012, at a showroom cost of \$102,000 for the base model, with the less-expensive "Project Nina" (\$50,000 per electric car) planned to ramp up at the Delaware plant early in 2012 or early 2013.

Beyond logistics issues, questions might be raised about the stability of Fisker's private financial backers. Under heightened scrutiny by a majority of Republicans in the House after the Solyndra bankruptcy debacle, DOE loan managers could be taking a harder line on private investors.

One of the highest profile backers is the Silicon Valley venture capital firm Kleiner, Perkins, Caufield and Byers, which highlights companies as one sector where it focuses technology investments. Not surprisingly, former Vice President and global warren Buffett at Al Gore is a senior partner for KPCB. Gore is also a supporter of Fisker and he purchased one of the first Karma models, according to the *Wall Street Journal*. Employees of KPCB have donated \$2.6 million to candidates and political action committees for Democrats over Republicans by a very wide margin, according to the Center for Responsive Politics. Also, throughout 2010 KPCB spent \$50,000 per quarter lobbying Congress on legislation that was heavy-laden with renewable energy government subsidies, such as the Recovery Act, the American Clean Energy and Security Act, the Clean Energy Jobs and American Power Act, and climate and energy bills.

One source of greater concern is the trouble surrounding the broker that has raised the private financing for Fisker, Advanced Equities. A Chicago-based venture capital investment bank says it specializes in late-stage equity financing, raising funds to "bridge the gap between venture money and traditional corporate finance." Last week an investor sued Fisker and Advanced Equities for their failure to perform fiduciary duties and for fraud. He alleged that after he bought \$210,000 of preferred stock between 2008 and 2011, Fisker and Advanced Equities last month demanded more than \$83,000 "due to Fisker's urgent need for equity capital" and that he would lose privileges that came with his purchase of earlier stock.

The lawsuit says Fisker and...Advanced Equities Inc., knew their promises to him were false all along," reported the *Orange County Register*. "The suit seeks restitution, compensatory and punitive damages from Fisker and Advanced Equities."

Advanced Equities is co-led by its founders, Keith Daubenspeck and Dwayne Badger. The pair were the subject of a scathing article in *Forbes* which accused the company of "foisting junky startups on investors." The article cited the rapid rise of Advanced Equities in the technology venture capital environment, but accused Daubenspeck and Badger of leaning heavily on the credibility of larger firms like Kleiner Perkins to impress investors to buy in on still-shaky tech prospects at later stages.

One problem with this picture is that in vaulting AE to its high perch in the VC world, Daubenspeck and Badger have left a wake of angry customers, furious former employees, lawsuits and more than their share of busted startups," *Forbes* reported. "At least 10 clients have filed arbitration complaints accusing the firm of wrongdoing. Separately, six brokers have alleged that they lost them for millions of dollars."

The *Forbes* magazine cited several examples, and noted the "humble origins" of Daubenspeck (a community college graduate) and Badger (a dropout). Daubenspeck was fired in 1993 by Oppenheimer Securities for buying client lists from another firm, and in 2000

"This place is a stereotypical bucket shop," an unidentified Advanced Equities broker told *Forbes* in 2008, who said he was sticking around only because he hadn't been paid in full. "The deal flow is a joke. The only reason we get these deals is because we massively overpay."

In a letter <sup>[17]</sup> to *Forbes*, Daubenspeck and Badger defended their work and claimed the article was one-sided, based on old information, and claimed they "struggled with our business model during the early years."

Advanced Equities has been entrusted with nearly all, if not entirely all, of Fisker's private equity fundraising. Whether or not they are under scrutiny as DOE, feeling the heat from Congressional investigators, considers if Fisker should have the remainder of its loan is unclear. Advanced Equities' track record can't be helpful, but that should have been vetted before the loan was awarded.

Then there is the government money. Besides KPCB's efforts, Fisker also lobbied <sup>[18]</sup> Congress, the White House and the Departments of Energy and Defense – spending \$190,000 in 2009 – to seek "funds through (the) Advanced Technology Vehicles Manufacturing Loan Program" that was passed in 2007 by the Democrat Congress and President Bush. Overall Fisker spent \$480,000 on firms the employed lobbyist Laura Lovelace <sup>[19]</sup>, a Goldman Sachs veteran who worked on the National Energy Policy Interagency Task Force under President Bush "to formulate a comprehensive energy plan." She now works for an energy-lobbying firm headed by Harrison Wellford, who served on President Obama's transition team in 2008. As the Future of Capitalism blog put it <sup>[20]</sup>, "How do you get a \$529 million loan from the government? You hire the former Bush administration official who helped set up the program, and President Obama's transition adviser."

As NLPCC reported last week, now watchdog group Judicial Watch has demanded documents <sup>[21]</sup> related to the Fisker DOE loan, under the Freedom of Information Act. Meanwhile an independent consultant hired by the White House to examine the Department of Energy's loan programs determined <sup>[22]</sup> that DOE should create a new risk management department. The White House seemed relieved that the consultant, Herbert Allison, considered only \$2.7 billion in the programs to be at "risk," less than the nearly \$3 billion DOE had set aside to cover potential losses.

House Energy and Commerce Committee Chairman Fred Upton and Oversight and Investigations Subcommittee Chairman Cliff Stearns had another view.

"It would be a stunning case of bureaucratic disregard to declare victory because the government is expecting to lose 'just' \$3 billion," the Congressmen said in a joint statement <sup>[23]</sup>. "One key lesson is that taxpayers should not have been placed in the position to lose one dollar, let alone billions, all because the stimulus allowed companies with shaky finances to apply for and receive taxpayer support without putting up any money."

Yesterday Fisker showed off <sup>[24]</sup> the Karma in Beverly Hills for the media, which seemed an attempt to divert attention from its woes. And now its founder, former Aston Martin designer Henrik Fisker, says he doesn't want his company to be dependent on DOE.

"We have already looked into alternative financing and we have really good possibilities," he told Reuters.

If that's to be believed, then why did he so aggressively seek taxpayer money in the first place?

*Paul Chesser is an associate fellow for the National Legal and Policy Center.*

Advanced Equities <sup>[24]</sup> Al Gore <sup>[25]</sup> California <sup>[26]</sup> Cliff Stearns <sup>[27]</sup> Delaware <sup>[28]</sup> Department of Energy <sup>[29]</sup> electric car <sup>[30]</sup> electric vehicles <sup>[30]</sup> Fisker <sup>[31]</sup> Fred Upton <sup>[32]</sup> Goldman Sachs <sup>[33]</sup> Government Integrity Project <sup>[34]</sup> Green jobs <sup>[35]</sup> House Committee on Oversight and Government Reform <sup>[34]</sup> Kleiner Perkins <sup>[36]</sup> President Obama <sup>[36]</sup> Recovery Act <sup>[37]</sup> Solyndra <sup>[38]</sup> stimulus <sup>[39]</sup>

**Source URL:** <http://nlpcc.org/stories/2012/02/14/integrity-fisker-equity-fundraisers-questioned>

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2012 Fisker Karma EcoChic, New York City, Jan 2012

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This is the week when driving impressions of the [2012 Fisker Karma](#) have started to appear, as [Fisker](#) invites in waves of automotive journalists for a half-day of driving in and around Los Angeles.

(We'll have our report early next week, but we had a [brief drive](#) a few weeks ago, and [another with video](#) in December.)

## ALSO SEE



2012 Fisker Karma Electric Car First Drive...



2012 Fisker Karma Electric Car: Quick Drive...



BMW ActiveE First Drive: At The Wheel (Video)

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So, with luck, the press about Fisker Automotive will be about the Karma range-extended electric car—not the lawsuit by an irate investor, nor the ongoing negotiations with the U.S. Department of Energy to [renegotiate the terms of low-interest loans](#) under the DoE's advanced-technology vehicle manufacturing program.

So, about that lawsuit.

As reported last week in the [Orange County Register](#), an investor named Daniel Wray has sued Fisker Automotive, alleging that the company and the fund through which he invested, Advanced Equities Inc., committed fraud and breach of fiduciary duty when they sold him the stock.

Wray bought roughly \$210,000 in preferred Fisker stock from AEI in the 18 months between October 2009 and April 2011. AEI bundled money to invest, in units of roughly \$100,000, from high-net worth

individuals. In total, it invested \$25 million in Fisker over two years.

Last month, Wray got a letter from Fisker saying that due to the company's "urgent need for equity capital, the financing now contains a 'pay to play' provision" that required him to invest an additional

# Is America Blowing Its Chance To Lead In Electric Vehicles?

Bright Automotive, a promising start-up company developing hybrid plug-in delivery vans for fleet customers, closed its doors this week after running out of money. It's too bad, really. Its lightweight van, called the Bright Idea, seemed like a perfect vehicle for businesses that need to make service calls or deliveries. With a 30-mile range on electricity, and the equivalent of 85 mpg, the van would supposedly lower their total cost of ownership by 10 percent to 30 percent. By building it in Indiana, Bright expected to create 675 Midwestern jobs.



The Bright Idea, a hybrid plug-in for fleets

Another EV start-up, Fisker Automotive, is in [the fight of its life](#). This week it hired a new chief executive and said it is seeking new investors, perhaps overseas, to support its ambitious growth plans after it was forced to suspend some development work.

Both companies blamed their financial troubles on bureaucratic gridlock in a U.S. Department of [Energy](#) loan program intended to promote the development of cleaner, more fuel-efficient cars in the United States. Three months ago, another fledgling EV maker, Aptera, pulled the plug on its four-year-old business for the same reason.

The Advanced Technology Vehicle Manufacturing program was supposed to provide up to \$25 billion in direct loans to help companies both large and

*This is a rush transcript from "On the Record," February 17, 2012. This copy may not be in its final form and may be updated.*

**GRETA VAN SUSTEREN, FOX NEWS HOST:**  
First, the White

House did it again! They waited until late Friday, about 6:00 PM, to dump more Solyndra documents on Congress. Now, those documents are ones that a House committee had been demanding. Why did the White House wait until late Friday at 6:00 PM to do it? You know why.

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But that isn't even the big Solyndra news tonight. There is new information that suggests **SECRETARY OF ENERGY STEVEN CHU** may be deeper in this scandal than the White House has been saying.

**CONGRESSMAN CLIFF STEARNS** of the House Energy and Commerce Committee joins us. Good evening, sir.

**REP. CLIFF STEARNS, R-FLA.:** Good evening, Greta.

**VAN SUSTEREN:** All right, new information just coming out – not in the document dump tonight because that – people haven't had a chance to sift through that, but Prologis. Who are they, and how do they play into the Solyndra scandal?

**STEARNS:** Well, first of all, they're part of the 1705 program, loan guarantee that Department of Energy gave out for Solyndra. They're headquartered in San Francisco. They're a huge company. They operate in 22 countries. And they got \$1.4 billion from the Department of Energy to develop – put solar panels on the roofs of their commercial buildings.

exceeded the cost you could buy them from China. So what in the world would be the incentive for Prologis to buy them from Solyndra?

**STEARNS:** We did a letter to the White House with just that very question, asking, What was the deal? Why would Prologis buy from Solyndra at a higher price when they could buy it in the open market for cheaper? And second of all, did Solyndra actually provide to Prologis solar panels? How many, and what effect was the contract?

**VAN SUSTEREN:** Why were we giving federal stimulus money in a loan to Prologis? I went on the Internet, and this is a company that has \$43.3 billion in assets. They say they're the leading owner, operator and developer of industrial real estate in the Americas, Europe and Asia, and they operate, apparently, 600 million square feet. Why do they need our money?

**STEARNS:** They don't. And that's -- that's really what is the basis of, I think, the investigation of the O&I committee that I chair, is we see favoritism. Greta, throughout the stimulus package.

In fact, you know, today is one year ago we started the Solyndra investigation. And three years to this date, this very date, the 17th of February, was the \$750 billion stimulus package. So in effect, what we see throughout all these stimulus packages is favoritism towards their campaign contributors.

**VAN SUSTEREN:** All right, how does -- how does a loan of \$1.4 billion -- and we're so used to these numbers that billion...

**STEARNS:** Yes. Right.

**VAN SUSTEREN:** We've sort of gotten desensitized to it, but a billion's a lot of money, is how did \$1.4 billion to this very successful \$43.3 billion...

**(CROSSTALK)**

**VAN SUSTEREN:** How many jobs did that generate? Where's the stimulus?

**STEARNS:** Yes, I can't imagine they generate any jobs. Just like, you know, you saw that Duke Energy got \$230 million and they generated 196 jobs.

**VAN SUSTEREN:** And who's the -- and who's the CEO of Duke Energy?

**STEARNS:** Jim Rogers is the CEO. He's now co-chair of the national Democrat convention. So that would indicate, you know, some kind of -- I would think some favoritism. But the larger question is, how much has the White House been involved

would they want to buy Solyndra panels if they're more expensive than they can get in China? And four, it looks like, you know, Solyndra since couldn't sell the panels themselves that we go out and loan money to somebody else and say, Use that money to buy from Solyndra because they're going belly up! That's what it looks like.

**STEARNS:** It looks like an example...

**VAN SUSTEREN:** It looks funny to me!

**STEARNS:** Yes, like you're giving me money to go to buy something from somebody you also gave money to, too. So it's really a circle of just circulating taxpayers' money at taxpayers' expense.

**VAN SUSTEREN:** All right, now, I realize you get these documents 6:00 PM on Friday night, these Solyndra documents, and I assume you're going to get documents on Prologis so we can figure out who are the -- who runs it, whether there are any political connections, and whether there's any legitimate reason to have this loan and even whether any jobs were developed. I figure -- you're going to go after that, right?

**STEARNS:** We're going to go after that and try and look at the contract that was developed between Prologis and Solyndra, and actually to see if any products were bought and what was the price of those products.

**VAN SUSTEREN:** And the -- and let's not forget the whole goal, to stimulate the economy. Anyway, Congressman, thank you, sir.

House Oversight & Government Reform Committee Chairman Durrell Issa (R-Calif.) charged on Monday that the controversial loan to Solyndra could lead to hundreds of millions of dollars in lost tax revenue for the government, beyond the \$535 million lost when the solar panel maker went bankrupt.

Issa wrote to Energy Secretary Steven Chu on Monday to ask for details about the tax implications of that loan, in the wake of reports that the tax losses from Solyndra could be as high as \$341 million. He summed up the Solyndra situation by saying the combination of loan and tax losses could put the real taxpayer cost of Solyndra at \$849 million.

In addition, Issa asked Chu to explain whether a \$529 million loan to a California auto company poses a similar risk of tax losses. Fisker Automotive received that loan in 2010 under the Advanced Technology Vehicles Manufacturing (ATVM) Program.

<sup>7</sup>As the Committee continues

to conduct oversight on Fisker's ATVM loan, DOE is withholding important documents regarding these loans," Issa wrote in his letter. "Given DOE's noncompliance, the Committee cannot assure taxpayers that, in the case of bankruptcy, a similar subordination of taxpayer interests will not occur."

Issa cited press reports in explaining that in addition to the \$535 million lost through Solyndra's bankruptcy, the government was also hit by additional losses of up to \$341 million in tax losses. He said that loss was due to a restructuring of Solyndra's loan.

Specifically, Issa said that in 2011, the DOE convinced two private investors to put another \$75 million into Solyndra. In return, the government agreed to give an priority status for being repaid in the event of a bankruptcy.

**Meeting with The United States Department of Energy  
Rule Making for EISA Section 136 Loan and Grant Program**

October 23, 2008

**MaryAnn Wright  
CEO, Johnson Controls - Saft Advanced Power Solutions**



**SAFT**

Advanced Power Solutions

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## **Johnson Controls supports this program**

Johnson Controls supports the loan and grant program to mitigate risk for our North American OEM customers as they begin the transformation to electric drivetrain vehicles without clarity of market requirements and consumer preferences going forward. Current economic conditions have increased the urgency with which this program should be implemented.

**Johnson Controls**  
**Summary of Comments and Responses to Questions**  
**Meeting with DOE/OMB Officials on**  
**Advanced Technology Vehicle Loan program**

October 23, 2008

**Opening statement**

Johnson Controls supports the loan and grant program to mitigate risk as well as create tremendous job opportunities for our North American OEM customers and Suppliers as they begin the transformation to electric drivetrain vehicles without clarity of market requirements, environmental policy making and consumer preferences going forward. Current economic conditions as well as domestic OEM distress have increased the urgency with which this program should be implemented.

- I. Because the U.S. taxpayer is ultimately the funding source for this program, it is appropriate and fair that the program is structured to ensure a favorable risks/benefits outlook for the working people who pay federal taxes. Therefore, it is recommended that any organization applying for a loan must meet the following basic qualification requirements:
  - i. Is eligible to pay corporate taxes to the United States Treasury
  - ii. Is a vehicle OEM, or a company which manufactures products in the United States in at least one of the following categories
  - iii. OEMs must provide a sourcing plan as part of the application process.
  - iv. Subsystem and component suppliers must submit a sourcing plan as part of the application process.
    - a) Electrochemical cells
    - b) Thermal management subsystems
    - c) Battery system controllers
    - d) Electric traction motors
    - e) Regenerative braking subsystems
    - f) Electric powertrain controllers
    - g) High power electronics for electrified powertrains
    - h) High efficiency transaxles for electrified powertrains
2. Costs in the following categories are eligible for loans:
  - i. Manufacturing facility renovations and new construction to enable advanced propulsion technology production and assembly in the United States
  - ii. Advanced technology manufacturing equipment produced in the United States
  - iii. Application, design-for-manufacturing and integration engineering costs for work performed in a facility sited in the United States.



## Biden, White House pressured green energy loan, contrary to Obama's statement, emails show

BY: [Andrew Evans](#)

November 15, 2012 5:00 am

Vice President Joe Biden and the White House pressured the Department of Energy to issue a loan guarantee in 2010 for a wind farm in Oregon, undermining the president's claim of political neutrality in the loan process, according to emails released recently by a key congressional committee.

The Department of Energy (DOE) [issued](#) numerous loans to support businesses as part of the 2009 stimulus. In an interview before the election, the president [hailed](#) the loans program for creating "jobs all across the country" and asserted that decisions about the loans are "made by the Department of Energy, they have nothing to do with politics."

[Internal emails](#) released on Oct. 31 by the House Oversight and Government Reform Committee suggest a different story, however.

The Energy Department's [loan guarantee](#) to Caithness Energy's Shepherds Flat wind farm project in Oregon was approved after the application of significant pressure throughout the vetting process from high-level officials, including from the White House and the office of the vice president.

"[The] emails indicate that senior administration officials—including those at the White House—were involved in approving specific projects, applying inappropriate pressure on career employees," said Ali Ahmad, communications adviser to the Oversight and Government Reform Committee.

If the Caithness Energy project were to go through, it would be one of the largest wind farms in the world—a fact that the Loan Program Office's [website](#) prominently highlights now. The Obama administration trumpets its commitment to green energy projects but has few successes to tout thus far compared to the billions of taxpayer dollars spent.

One of the earliest mentions of the Shepherds Flat wind farm in the released emails is an exchange dated July 27, 2010, between several Energy

Jonathan Silver.

One email said: "We need to figure out how to properly characterize Shepherd's [sic] Flat as WH is considering whether to have top principal involved."

The conditional guarantee of the loan was issued Oct. 8, 2010, just over two months later, according to [Sustainable Business Oregon](#).

It is unclear exactly who the White House's "top principal" is and why the White House was getting involved in the loan so early in the process.

DOE Loan Program Office Chief Credit Advisor Jim McCrea wrote on Sept. 2, 2010, "Shepherd's [sic] Flat has been transmitted to OMB. I am starting transmittal to Treasury."

The Department of the Treasury played an advisory role in making the loan guarantees and the Office of Management and Budget ultimately approved them.

There is no indication that they had received any information on the Shepherds Flat project before the beginning of September, raising further questions about why the White House was considering getting involved so early.

McCrea sent an email time stamped 1:18 AM a week later indicating that Biden was applying pressure for the loan while it was still under consideration. McCrea wrote, in part, "Pressure is on real heavy on SF due to interest from VP."

An email later that day from McCrea confirmed the loan has not been approved and implied that there was pressure for the Shepherds Flat loan to proceed. McCrea wrote in an email later that morning:

Also, as we go through the Shepherds Flat process with both OMB and Treasury, we will get a lot more questions as you know. We are going to have to be very fast in turning around responses and sending them to both. To do otherwise, will leave us firmly on the political path and give the agencies an opportunity to blame us when they are pressures [sic] to make decisions. As you all know, the pressures to make decisions on this transaction are high so

but his earlier email indicates that the vice president was turning up the heat on the departments.

An email dated Sept. 27, 2010, with the subject line “Calculations for Treasury—Shepherds Flat” indicated that a “big meeting” took place at the White House on Sept. 24, 2010 between the Departments of Energy and the Treasury, as well as the Office of Management and Budget.

The Department of Treasury raised substantive questions about the loan, implying that the loan deal was still not completed when the departments convened at the White House.

It is unclear why the meeting about an unfinished loan deal occurred at the White House, given President Barack Obama’s assurance that decisions about the loan were made by the Department of Energy.

The Department of Energy did not return a request for comment.

A later email reveals the White House had a special interest in this project and was directly encouraging the departments to complete the loan.

Energy Secretary Steven Chu’s Chief of Staff Brandon Hurlbut wrote an email to Silver on Sept. 30, 2010: “Wh decided chu and geithner need to speak first thing in morning to make sf announcement happen.”

Hurlbut requested that Silver draft some talking points for Chu. One of the talking points said, “We need to get the Shepherds Flat deal done so that the President can make it the centerpiece of his radio address on Saturday.”

This email implies that political pressure at least sped up the completion of the loan.

“The loan program set out to pick winners and losers using taxpayer funds,” Ahmad said. “Supposed safeguards for keeping politics out of decisions were repeatedly ignored.”

“Politicization is the reason the loans are there in the first place,” said David Kreutzer, an energy economics expert at the Heritage Foundation.

Kreutzer testified about the loan program before the House Subcommittee on Energy and Power earlier this year. He said the Department of Energy used

on was that projects should be commercially viable. Those seeking funding must demonstrate that they can raise private financing," he said in [testimony](#).

in connection there," Kreutzer told the *Washington Post*. "Viable projects can receive private financing, he said.

g's political action committee has donated heavily. It contributed \$10,600 to campaigns in the 2008 cycle and donated \$31,857 in 2012, 88 percent of which were

weren't involved, we wouldn't have the loans in the



JORDAN GRILLS  
CHU OVER DOE  
LOAN  
PROGRAM,  
POLITICAL  
CONNECTIONS

over the political connections of many green energy companies that received Energy Department loans at a hearing of the House Committee on Oversight and Government Reform Tuesday.

Jordan listed nine people with ties to the Obama administration and financial stakes in Energy Department loan recipients, asking Chu if any had influenced the Energy Department's decision to award the loans.

For example, there is Steve Spinner, a loan program officer at the Energy Department and a former bundler for the Obama campaign. Spinner's wife's law firm represents Solyndra, the bankrupt solar company, which received \$535 million in taxpayer-backed Energy Department loans.

"My understanding is there were 27 companies in the 1705 loan program, eight of which had connections to the White House," Jordan said. "Do you see a pattern or concern there?"

Chu said the political connections had no influence on his decision to award the loans. He said neither they nor the White House lobbied him for the loan guarantees.

Chu testified Tuesday on the Department of Energy loan program, which was in charge of awarding billions of dollars in stimulus money as part of the Obama administration's green jobs initiative.



U.S. Department of Energy

corners in order to get the loans approved.

"The Department of Energy manipulated analysis, ignored objections from career professionals, and strategically modified loan evaluations in order to force project funding out the door," House Oversight and Government Reform Committee Chairman Darrell Issa, R-California, said in a statement provided to ABC News.

The Department of Energy says Chu will have plenty of material with him to rebut those allegations Tuesday when he comes to the Hill to testify before Issa's committee. Agency officials continued to characterize criticism from House Republicans as misleading attacks that are aimed at scoring political points.

Energy Department spokesman Damien LaVera accused the committee of "inventing false and misleading controversy." "Decisions made on loan applications were made on the merits after extensive review by the experts in the loan program," LaVera said. "In this case, the Department backed loans for two innovative solar projects that will support hundreds of jobs and provide clean power to tens of thousands of homes."

Two separate House committees have been investigating the Energy Department's loan program for more than a year. Their efforts gathered steam last fall when the first company to receive a federal green energy loan, Solyndra, filed for bankruptcy. This latest review delves into highly technical aspects of the administrator's sizeable bet on solar energy and the complex rules set up to help the administration pick the best projects to support.

Energy officials told ABC News the department followed a rigorous process to evaluate each applicant, and the two projects being scrutinized by Issa's committee are some of the most exciting solar ventures underway in the United States. If successful, the massive generating facilities would be by far the largest of their kind in the world -- comprised of more than five million solar panels and 35,000 metric tons of steel.

Republicans say they sifted through tens of thousands of pages of internal records turned over by the Energy Department in response to their requests.

Investigators with the Committee on Oversight and Government Reform said the documents they reviewed have raised new questions about the administrator's decision to grant multiple loans to the solar energy giant First Solar, an Arizona-based company that both makes solar panels and assembles enormous solar generating facilities that are then turned over to utility companies to operate. Two of the company's largest projects won federal loans -- generating facilities called Agua Caliente, in Arizona, and the Antelope Valley Solar Ranch in California. (Two more First Solar facilities also qualified for another \$2 billion in loan guarantees, making the company one of the nation's largest beneficiaries of the Obama administrator's green energy initiative.)

In order to receive the loan money, First Solar had to provide evidence that each project would employ new and innovative technologies to generate energy. Republican investigators said Friday the records they reviewed raised doubts about whether the solar facilities necessarily do that. Among the documents they cite is an email from a top technical expert inside the department, written less than six weeks before the loans to First Solar were approved, in which he argues that one of the supposed advances -- use of something called a "single axis tracker" -- was actually not all that new.

"Be clear this is not an innovation," wrote Dong K. Kim, the director of the loan program's technical division. "The record will show we did not grade this as an innovation."



second aspect of the solar plants that the Energy Department identified as innovative had already been in use in over 200 units in Europe, according to the internal documents.

These facts make clear DOE substantively failed to fund innovation, and instead gambled with \$3 billion taxpayer dollars on a single idea. First Solar,\* said Becca Watkins, an oversight committee spokeswoman.

Energy Department officials told ABC News they believe the Republican investigators are looking at an incomplete picture, saying that they are the author of the email -- ultimately signed off on the technical innovations in the two solar projects, as did senior loan officers who conducted their own thorough review. They also suggested the House investigators have misread the rules -- that the innovations in the loan project meet the requirements.

The fact that some of the innovative technology has been used in projects in Europe, for instance, does not mean the project is not innovative under the rules the department set out to govern the loan program. Technology that has not been used commercially in the United States will qualify as innovative, the rules say. House Republicans counter that the rules explicitly call for technology that is "new or significantly improved."

In nearly a year, Congressional critics of the Department's loan programs have demonstrated a consistent pattern of cherry-picking individual emails from the hundreds of thousands of pages of documents the Department has provided to Congress with the sole purpose of presenting false and misleading controversy,\* La Vera said.

While the law that created the [green energy] loan program does not include any requirement to limit our support to innovative projects, the Department chose to apply a tougher standard that would ensure we were investing in the kind of projects that will help the United States compete for the clean energy jobs of the future," he said. "After a careful review on the merits, the senior career official responsible for the loan program's technical reviews made clear these projects met that standard."

In its part, First Solar officials say it considers the two projects funded with government loans to be revolutionary in the solar industry. The projects are "of unprecedented size and scale that will provide clean power for 175,000 average homes while displacing 360,000 metric tons of CO2 annually -- equivalent to taking 70,000 cars off the road," said Ted Meyer, the company's vice president of global corporate communications.

The projects are incorporating new technologies to "help to ensure the reliability and stability of transmission systems, which is a key challenge for the long-term integration of renewable energy into the grid. It is expected that these technologies will eventually become standard in the solar power industry," he said. In addition, he added that the single-axis trackers at the Antelope Valley project "will enable the modules to rotate to capture more sunlight, typically resulting in 15-25 percent more annual energy yield, depending on the location."

But Solar officials say they are forecasting more than \$3 billion in revenue this year, but they acknowledge the company has suffered losses in the past. The company's stock has fallen 40 percent since it went public in 2009, and it has been trading at a discount to its book value. The company's stock has been sliding, and has become a favorite for so-called "short sellers" -- investors who are betting on the company to fail.

hat an international law firm, whose employees provided significant campaign support for President Obama, was paid \$1.8 million from the stimulus to review and conduct "due diligence" for the Department of Energy (<http://nlpc.org/category/keywords/department-energy>)'s suspended loan to Fisker Automotive (<http://nlpc.org/category/keywords/fisker>), an electric vehicle start-up company. Fisker sent 65 workers to the unemployment lines.



Debevoise and Plimpton (<http://nlpc.org/category/keywords/debevoise-and-plimpton>) which employs top Obama bundler (<http://www.opensecrets.org/pres12/handlers.php?id=Non0009638>) and fundraiser (<http://nlpc.org/stories/2012/02/28/obama-supporting-law-firm-advised-failed-fisker-loan>) David Rivkin, wasn't the only largely Democratic law firm to reap such rewards. At least four other major law practices also analyzed DOE's loan programs and its grantees – three of which gave large sums of money to the campaigns of President Obama and fellow Democrats.

Debevoise, on the heels of \$199,944 in donations to Sen. Barack Obama for his 2008 presidential campaign, was able to land the contract to analyze loans from DOE's Advanced Technology Vehicles Manufacturing Loan Program ([https://epo.energy.gov/?page\\_id=41](https://epo.energy.gov/?page_id=41)) to troubled Fisker Automotive (<http://nlpc.org/category/keywords/fisker>) and Ford Motor Company (<http://nlpc.org/category/keywords/ford-motor-company>). Fisker had its \$529 million loan suspended after failing to reach milestones; Ford received a \$5.9 billion loan guarantee (<https://epo.energy.gov/?projects=ford-motor-company>) to retrofit plants for the production of hybrid and electric vehicles.

Another law firm that landed a similar contract to review ATVM loans was Paul, Weiss, Rifkind, Wharton & Garrison LLP (<http://www.paulweiss.com/>). According to the Recovery.gov Web site, Paul/Weiss was tasked (<http://www.recovery.gov/Transparency/RecipientReportedData/Pages/RecipientProjectSummary508.aspx?AwardIDSUR=34510&tr=2010Q2>) with reviewing loan documents for Tesla, Nissan North America and Magna E-Car systems. During the three election cycles that cover 2008 to 2012,

# Political contributors snag stimulus funds for cleantech companies?

2011 | Matthew Lynley  
Investments



Political contributors might have steered clean energy loans from the U.S. Department of Energy to companies in their investment portfolios, according to a report by the Center for Public Integrity and ABC News.

The report suggested that four companies that Steve Westley, a managing partner at clean technology investment firm TPG Energy Group, has invested in received more than \$500 million in loans, grants and stimulus money from the Department of Energy after Westley contributed \$500,000 to the Obama campaign. The companies in Westley's portfolio that received federal funding are Tesla Motors, RecycleBank, EdeniQ and Amyris Biotechnologies.

Amyris Biotechnologies and Tesla Motors have since gone public. Amyris is valued at \$1.2 billion and Tesla Motors is valued at \$2.5 billion. Westley said that the company in his portfolio went through a strict screening process and was awarded the loan based on merit, and that each received the loan before he was an advisor to U.S. Department of Energy secretary Steven Chu, according to the report.

The Department of Energy also made several loans to companies that Kleiner Perkins Caufield & Byers has invested in. Managing partner John Doerr and other executives from the storied venture capital firm have donated more than \$1 million to political causes in the past two decades to federal political causes — mostly to Democrats.

The report doesn't make any direct connections and doesn't offer substantial proof that the companies received special treatment because of Westley and the other executives' contributions. So, as usual, correlation does not imply causation. But it's worth keeping an eye on — particularly because Westley is a member of Chu's 12-person advisory board, and Doerr is a member of the Economic Recovery Advisory Board.

Business Story: Entrepreneur Corner: Succession planning and napkin entrepreneurs

# Congress of the United States

Washington, DC 20515

December 22, 2009

The Honorable Steven Chu  
Secretary  
Department of Energy  
1000 Independence Avenue, SW  
Washington, D.C. 20585

The Honorable Peter Orszag  
Director  
Office of Management and Budget  
Washington, D.C. 20503

Dear Mr. Secretary and Director Orszag:

We write regarding recent challenges posed to the loan guarantee program authorized by Title XVII of the 2005 Energy Policy Act. Specifically, we refer to the credit subsidy cost associated with issuing loan guarantees and loan volume. We would appreciate clarification on these matters.

Our primary concern is the issue of credit subsidy costs, and the continuing lack of certainty about what those costs will be for nuclear projects. We recognize that the Department of Energy (DOE) calculates subsidy cost using the Credit Subsidy Calculator developed by the Office of Management and Budget (OMB), and that OMB must approve those calculations. We would appreciate an explanation of why it is taking so long to come to reasonable closure on the issue of subsidy cost. We would also appreciate an explanation of the basis for developing those subsidy costs, particularly key input assumptions to the Calculator like default probability and recovery rate. We are concerned that inappropriate assumptions may produce subsidy costs that are significantly higher than necessary to protect the taxpayer's interest, and which would preclude creditworthy projects from using the loan guarantee program.

On loan volume, we are concerned that the \$18.5 billion in loan volume currently authorized for nuclear power projects will not cover the four projects with which DOE is currently negotiating, which represent approximately \$38 billion in loan volume. Even assuming some level of co-financing, it does not appear that \$18.5 billion will be enough to cover the four lead projects, and it is certainly not enough to support other creditworthy nuclear projects that have filed loan guarantee applications. Additionally, we are concerned that the \$2 billion for front-end enrichment facilities does not meet the demonstrated need, which we believe to be \$6 billion. We urge you to request sufficient additional loan volume in your Fiscal Year 2011 budget to provide a solid financing platform for the new nuclear plants our nation clearly needs.

We are also concerned by the budget scoring associated with any additional loan volume. For several years now, CBO has scored loan volume at one percent of face value. This places the loan guarantee program and the Congress in an untenable situation. If the Administration proposes additional loan volume for any eligible technology, and fails to include the one-percent score in its proposed budget, the Congress is faced with appropriating that amount and reducing expenditures on other important programs. This is an unacceptable outcome. We urge DOE and OMB to take ownership of this issue and work with the Congressional Budget Office to address it.

We believe these questions and concerns can be handled best through a staff briefing, at which the appropriate Executive Branch staff provide the clarifications and explanations requested, and afford our staff the opportunity to pose questions and test assumptions. Please contact Luke Tomanelli with Senator Crapo's office at the earliest opportunity to schedule that briefing. He can be reached at (202)224-6142.

Thank you for your prompt attention to this matter.

Sincerely,

Mike Crapo George V. Kenosis

Lamar Alexander John Barrasso

Jan E. Pritz Tim Witter

Jim Coakley Rob Portman

ns for implementing the Section 1705 loan g

3 loans for the guaranteed portions of loans g

Section 1705 program for all forms of renew  
nd, biomass, waste-to-energy, advanced biof  
ergy, hydropower and geothermal).



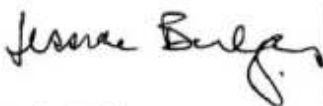
Linda Church Ciocci  
Executive Director  
National Hydropower Association



Marvin S. Fertel  
President and Chief Executive Officer  
Nuclear Energy Institute



Rhone Resch  
President and Chief Executive Officer  
Solar Energy Industries Association



Jessica Bridges  
Executive Director  
United States Clean Heat and Power Association



Bob Cleaves  
President  
Biomass Power Association

cc: Joseph R. Biden, Jr.  
Vice President of the United States

Rahm Emanuel  
White House Chief of Staff

Valerie Jarrett  
Senior Advisor and Assistant to the President for Intergovernmental Affairs  
and Public Liaison

Gen. James L. Jones (USMC Ret.)  
National Security Adviser

Carol Browner  
Assistant to the President for Energy and Climate Change

Lawrence Summers  
Chairman, National Economic Council

Steven Chu  
Secretary of Energy

Peter Orszag  
Director, Office of Management and Budget

## Administrative Changes Necessary for a Workable Title XVII Loan Guarantee Program

To be effective and workable, the DOE loan guarantee program requires significant revisions to the regulations governing the Section 1703 program and new regulations to implement the new Section 1705 program. The regulatory provisions proposed below for the Section 1703 and Section 1705 programs are consistent with well-established commercial banking practices as well as standard practices for successful loan guarantee programs used by government institutions like the Export-Import Bank of the United States and the Overseas Private Investment Corporation (OPIC), both successful from a risk-management perspective. The President's FY 2010 budget projects that both programs will be profitable to the taxpayer in FY 2010 – i.e., fee revenues will exceed the budget subsidy cost of new loan guarantees.

Our recommendations that apply to both the Section 1703 and the Section 1705 loan guarantee programs are set forth below:

- Correct the current requirement under the 2007 regulations that DOE must have a first lien on all project assets (which requirement we understand DOE's Office of General Counsel no longer believes to be required by statute), and permit DOE discretion as to the scope of a given project's collateral package. The regulations must allow for more flexible collateral-sharing arrangements, including *pari passu* treatment of the collateral shared among co-lenders. The existing Section 1703 regulations assume that clean energy technology projects would largely have a single equity owner and a single lender. In reality, clean energy technology projects may have multiple equity holders with undivided interests in project assets and more than one co-lender. Changing the regulations as proposed would be beneficial to the federal government because the change would bring more parties into the financing structure and reduce the federal government's risk exposure.
- Permit collateral to be shared *pro rata* and *pari passu* among all project lenders, including export credit agencies.
- Recognize an undivided interest in specific project assets as itself constituting a financeable project qualified for loan guarantees, with that undivided interest qualifying as the relevant project asset for purposes of complying with collateral requirements.
- Because of the current lack of liquidity in capital markets, the regulations must allow commercial lenders greater flexibility to create secondary markets for guaranteed loans, including permitting the unguaranteed portion of the loan to be "stripped" and placed separately from the guaranteed portion.
- Ensure access to the long term (e.g., 30 year) loan tenors and interest rates (Treasury plus 25 basis points) available from the Federal Financing Bank (FFB) for all loans extended under Section 1703 and Section 1705 loan guarantees, and allow the FFB premium to be



- Allow credit subsidy costs and application fees to be considered project costs and to be paid at closing (though out of the equity portion of the capital structure rather than from the proceeds of guaranteed debt).
- Ensure that developers have the ability to bundle small distributed generation systems and energy efficiency projects under one loan guarantee to gain the efficiencies necessary to make the programs attractive for small projects. Absent a mechanism to provide guarantees to support financing of multiple small projects, the loan guarantee programs would not be helpful to distributed generation projects because the transaction costs for individual projects would outweigh the benefit of the individual project loan guarantee, and leaving distributed generation projects stranded.
- Expand the definition of “equity” to include in-kind contributions.
- Ensure that other forms of government assistance provided to a project (including, for example, production tax credits, investment tax credits, government grants, access to transmission, or access to federal lands) do not prejudice or disqualify an application. Other government assistance for a given project is positive from DOE’s perspective. In some cases, such as access to federal lands or transmission lines owned by federal power marketing authorities, it is fundamental to the project. Financial incentives, such as a government grant, reduce the cost of the project, thus reducing the size of any loan and loan guarantee and increasing the likelihood of repayment. These additional forms of assistance should be viewed as complementary.
- Eliminate the requirement for a “preliminary credit assessment” for projects at the time of application. This requirement adds significant cost to the application process for little to no benefit to DOE. For commercial technologies, with which both the market and DOE have significant experience, the step is not necessary to protect taxpayers; for innovative technologies, the ratings agencies are not necessarily equipped to evaluate technology risk. This rating requirement is not standard for a bank loan and would unnecessarily delay start of construction.
- Avoid duplication of effort on verifying environmental compliance. For many projects, companies are already engaged in mandatory environmental review processes with state or federal agencies. DOE should be required to accept the review and decisions of state and Federal permitting agencies and not require applicants to pay for additional review of these assessments.
- Allow DOE to enter into loan guarantee commitments, as authorized by the Federal Credit Reform Act, and not just merely conditional agreements subject to cancellation at the sole discretion of the Secretary. A full commitment would protect the sunk investment cost of project sponsors seeking to accelerate the pace of project development in advance of the loan guarantee agreement, while also allowing the government to protect its interests through the identification of clearly defined conditions precedent that would need to be satisfied prior to final closing on a loan guarantee agreement.



NUCLEAR ENERGY INSTITUTE



May 19, 2009

The President  
The White House  
1600 Pennsylvania Avenue N.W.  
Washington, D.C. 20500

Dear Mr. President:

We want to thank you for your strong leadership on clean energy issues and to convey again our support for your goal of doubling renewable energy supply over the next three years. We appreciate the stimulus for clean energy development in the American Recovery and Reinvestment Act (ARRA) and look forward to working closely with your Administration to ensure that these programs achieve your energy policy goals.

Our organizations, representing thousands of clean energy technology companies, are writing now to urge the Executive Branch to act promptly to adopt regulations that will allow clean energy projects to participate in two loan guarantee programs administered by the Department of Energy (DOE): the new Section 1705 loan guarantee program for renewable energy projects authorized by ARRA, and the existing Section 1703 loan guarantee program established in 2005 for innovative clean energy technology projects. These loan guarantee programs, properly implemented by workable regulations, will significantly increase access to debt financing for clean energy projects at a time when sources of capital in the private markets have been substantially reduced. With access to these loan guarantees, our member companies will be able to start construction of planned projects that would otherwise need to be delayed or cancelled due to current capital market conditions.

Unfortunately, the regulations necessary to implement these programs effectively have not yet been developed. It is critical that new regulations be developed to implement Section 1705 and to address defects in the existing Section 1703 rules, and we appreciate that DOE is working

between DOE and the Office of Management and Budget over these regulations, as evidenced by the fact that DOE's draft revised regulations for the Section 1703 program were submitted to OMB more than two months ago and have not been acted on. Three months have passed since enactment of ARRA, and we have little confidence that ongoing discussions between DOE and the Office of Management and Budget over these regulations will produce a satisfactory result in a timely manner.

We are not seeking additional budgetary funding for these loan guarantee programs. We ask only that funds already authorized be made available expeditiously and under reasonable terms and conditions so as to facilitate the financing of worthy projects, in full compliance with appropriate government oversight, transparency and accountability. Prompt action is particularly necessary in the case of the new Section 1705 program, which is only available to projects that commence construction by September 30, 2011. Changes are also required for the Section 1703 loan guarantee program, which is being implemented by DOE under regulations put in place by the previous Administration that have not proven effective in generating the financing that the program was intended to promote. In the almost four years that have passed since enactment of the 2005 Energy Policy Act, no loan guarantees have been finalized under the Section 1703 program.

The attachment to this letter lists the changes needed to the existing Section 1703 loan guarantee regulations and the characteristics necessary for a successful Section 1705 loan guarantee program. These proposals reflect the experience of our member companies over the past three decades in accessing debt and equity capital and using commercially acceptable methods to structure the financing of clean energy projects.

We would not take the unusual step of asking for your help in this matter if we believed that the Executive Branch departments and offices involved would reach agreement, with dispatch, on the rules necessary to implement these loan guarantee programs successfully. Further delay endangers the planned role of the green energy economy in the nation's economic recovery and undermines the effort to meet your Administration's energy policy goals, including the doubling of renewable energy supply in three years.

We would welcome the opportunity to provide additional information about this important matter, or to meet with your staff to discuss these matters further. Thank you for your attention to this critical concern.

Sincerely,



Denise Bode

CEO



Karl Gawell

Executive Director

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AdChoices 

(Source: Tim Logan [St. Louis Post-Dispatch \(MCT\)](#)) — The company that wants to build hybrid electric delivery vans here says its plans are rolling forward, but a crucial piece of its [financing](#) appears to be stalled.

Emerald Automotive's [plans to build a new \\$160 million auto plant in Hazelwood](#) — and an estimated 1,000 jobs it would create in the region — hinge largely on its application for a \$120 million federal [loan](#) from a U.S. Department of Energy program designed to spur green [auto](#) manufacturing. Yet that [loan](#) program hasn't issued a loan that size in nearly two years and appears to be mired in election

year politics that have analysts skeptical that any loans will be approved any time soon.

Emerald says it remains confident. But in recent weeks, other green car-makers have thrown up their hands in frustration with the Advanced Technology Vehicle Manufacturing Program, a \$25 billion loan fund that has two-thirds of its money still in the [bank](#).

Last month, Chrysler withdrew a \$3.5 billion loan application after negotiating for three years with the Department of Energy. Bright Automotive recently shut its doors after failing to reach a deal on a \$450 million package. Last week, diesel-police-car maker Carbon Motors was turned down for a \$310 million loan. All three criticized federal officials for repeatedly changing loan terms and dragging out the process.

"We are outraged by the actions of the (Energy Department)," Carbon wrote in a statement. "It is clear that this was a political decision in a highly charged, election-year environment."

Emerald filed its application for a \$120 million ATVM loan last April and said it continues to talk frequently with the energy department. It's still in a preliminary phase of the process, and has been given no timeline on closing a loan, but says it hopes to do so this year.

"Our experience has been nothing but positive," said Gary Marble, Emerald's communications director. "So far, everything seems to be going forward in a very positive manner. That's all we can go on."

The company, which recently began testing two prototypes of its lightweight, low-emission delivery van, continues to try and raise private financing, too. For now it is funding operations through \$7 million in private capital, a \$5 million grant from the British government and \$5 million in loans issued last year by the city of Hazelwood and the Missouri Technology Corp. It has hired a handful of employees here and has an option to purchase a site for its factory in Hazelwood, said general counsel Sharon Heaton. Emerald hopes to start making the vans — [and hire about 600 workers](#) — by 2014, and its plans have been hailed as a sign of revival in the St. Louis auto industry.



EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF MANAGEMENT AND BUDGET  
WASHINGTON, D. C. 20503

April 3, 2009

M-09-15

MEMORANDUM FOR THE HEADS OF DEPARTMENTS AND AGENCIES

FROM: Peter R. Orszag  
Director

SUBJECT: Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009

On February 17, 2009, President Obama signed into law the American Recovery and Reinvestment Act of 2009, P.L. 111-5 ("Recovery Act" or "Act").

This memorandum transmits the second installment of government-wide guidance for carrying out programs and activities enacted in the American Recovery and Reinvestment Act ("Recovery Act") of 2009. Please bring this memorandum and attachment to the attention of any personnel within your organization that you expect to be involved in these matters.

The guidance issued today supplements, amends, and clarifies the initial guidance issued by the Office of Management and Budget (OMB) on February 18, 2009, (*Initial Implementing Guidance for the American Recovery and Reinvestment Act of 2009, M-09-10*). All significant updates to M-09-10 are outlined in Section 1.5 of the attached guidance. These updates are based on ongoing input received from the public, Congress, State and local government officials, grant and contract recipients, and Federal personnel.

Significant work is underway at all levels of government and in communities across the nation to carry out the Recovery Act effectively. The attached guidance is intended to reinforce this progress by clarifying existing requirements and establishing additional steps that must be taken to facilitate the accountability and transparency objectives of the Recovery Act.

Specifically, in implementing the Recovery Act, departments and agencies should bear in mind the President's commitment to ensuring that public funds are expended responsibly and in a transparent manner to further the job creation, economic recovery, and other purposes of the Recovery Act. To that end:

- (1) *Merit-Based Decision-Making.* Consistent with the President's Memorandum of March 20, 2009, *Ensuring Responsible Spending of Recovery Act Funds*, departments and agencies should develop transparent, merit-based selection criteria that will guide their available discretion in committing, obligating, or expending funds under the Recovery Act for grants and other forms of Federal financial assistance.

# Electric Vehicles in Megacities – Shanghai Charges Up



McKinsey & Company  
January, 2010



# The fast lane to the adoption of electric cars

Russell Hensley, Stefan M. Knupfer, and Axel Krieger

Large cities may be the ideal test track for the mass market. Catalyzing early adoption could take less than most auto executives and policy makers think.

**As more and more electrified vehicles** hit the floors of car dealerships, conventional wisdom has it that the market won't get moving without richer incentives and dense battery-charging networks.

Yet our research on demand for electric cars in very large urban areas<sup>1</sup> shows that plug-in hybrid electric vehicles and battery-only electric vehicles could account for 16 percent of overall new-car sales in New York, 9 percent in Paris, and 5 percent in Shanghai by 2015. That's true even with today's financial incentives and limited public charging facilities.<sup>2</sup>

It's not surprising that the market may take root in big cities: nowhere is the need for cleaner air and reduced carbon dioxide emissions more pressing, and nowhere else

phase of electric-vehicle development. Our research offers insights that can guide auto companies, battery makers, infrastructure providers, and city governments alike as they consider moving forward with this technology and the networks that support it.

**Large markets are waiting to be served.** We found big clusters of potential early adopters—30 percent of all car buyers in Shanghai and 20 percent in New York—who were distinguished by their green thinking and would consider buying an electric car.

**For early adopters, the charging problem isn't as big as it seems.** Unlike other groups of car buyers in New York and Shanghai, early adopters were willing to adjust their driving



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## Compliance Testing Program Manufacturer's Responsibility

### Office of Vehicle Safety Compliance

National Highway Traffic Safety Administration  
United States Department of Transportation

#### COMPLIANCE TESTING PROGRAM

#### MANUFACTURERS' RESPONSIBILITY

It is the responsibility of a manufacturer of vehicles and/or items of motor vehicle equipment to certify that each motor vehicle and/or equipment item is in full compliance with the minimum performance requirements of all applicable Federal Motor Vehicle Safety Standards (FMVSSs). This is a **self-certification** process as opposed to the type approval process which is used in some other countries such as Japan. The NHTSA does **not** issue approval tags, stickers or labels for vehicles or equipment items before or after the first sale. In order to provide certification, the manufacturer takes whatever actions it deems appropriate. This usually means laboratory testing in accordance with the FMVSS or conducting other studies or analyses (due care process) to ensure that its products fully comply.

The manufacturer must not only be concerned with the initial certification, but should also monitor continued compliance of vehicles and/or items of motor vehicle equipment throughout the production run. To accomplish this, an effective quality control program must be established to periodically inspect and test vehicles and/or items of motor vehicle equipment randomly selected from the assembly line to ensure that the original performance is carried through to all other units.

The Office of Vehicle Safety Compliance (OVSC) does not specify the type of quality control program that a manufacturer should employ. That decision is left to the manufacturer. If the vehicle or item of motor vehicle equipment is designed with a reasonable factor of safety, the manufacturer can elect to have a selective sample surveillance program to demonstrate that production variations will not take the vehicle or item of motor vehicle equipment out of the range of full compliance. On the other hand, if the margin of safety is less with respect to the required performance, a more stringent quality control program would be needed.



## MEMA Summary of Q&amp;A

## DOE Panel

Lachlan Seward	Director, Advanced Technology Vehicle Manufacturing Loan Program
Carol Battershell	Senior Advisor, Energy Efficiency and Renewable Energy
Matt McMillen	National Environmental Policy Act (NEPA) Compliance Officer
Dan Cohen	Assistant General Counsel for Legislation and Regulatory Law
Pat Davis	Acting Program Manager, EERE, Vehicle Technologies Program

## Overview

The Department of Energy hosted the first of two public meetings on Dec. 1, 2008. There were three handouts provided to attendees: 1) a bound copy of the *Federal Register* Interim Final Rule (Nov. 12, 2008); 2) Notice re: "[Submitting Company Confidential, Proprietary, or Privileged Information with Loan Applications](#)"; and, 3) Technical Support Document re: "[Substantially Similar Attributes Determination](#)."

Lachlan Seward began the meeting by introducing the panel and then gave a general overview presentation of the Interim Final Rule. He also pointed out to the audience some key noteworthy information.

- All Q&A from the Dec. 1<sup>st</sup> & Dec. 5<sup>th</sup> DOE public meetings will be posted online.
- Issuance of funds depends on when applications are submitted, the application thoroughness, and processing of required permits or approvals.
- Loans are not available on a retroactive basis; past advanced technology vehicle-related investments are not eligible.
- Multiple loan requests for multiple projects are encouraged to be in one application. However, DOE requests that you make each separate project easily identifiable. *[MEMA Note: Make it as easy as possible for the DOE staff to clearly identify all the elements of your application. We recommend that all the components – such as, financial and related information, project/component information and related data, environmental information and supporting documents, labor assurances, etc. – should be visibly marked labeled and easily found in the submitted application.]*
- Key Provisions of IFR
  - Demonstrate financial viability w/o award of this loan.
  - Present sufficient information to comply with NEPA
  - Present model or data to allow DOE to make determinations on the technical aspects of the ATV.

Next, Carol Battershell reviewed the technical support document and explained the rationale behind it. She noted that the auto manufacturers have a specific set of tests to determine eligibility (73 FR at 66723) that is different from the test for component manufacturers (73 FR at 66728).

Following her, Matt McMillen, addressed and explained the NEPA requirements of the IFR (found under §611.106). Applicants must submit the specified reports required (§611.106(d) through (f)). Reports are to be as detailed as possible to provide the DOE with information needed for them to determine the appropriate level of NEPA review required. There are three levels of review –

- Environmental Impact Statement – the most complicated; a major federal action. It details the significant environmental impact/effect of a given project.
- Environmental Assessment – moderately complicated; used when it is unclear if an EIS is necessary. It determines whether there is a significant environmental impact/effect of a given project.
- Categorical Exclusion – when there is no significant environmental impact/effect.

Lastly, Dan Cohen gave a brief legislative and regulatory history summary of the IFR. He noted that the department served up the IFR well within its statutory deadline.

## Questions & Answers

The Q&A section is separated into categories of related questions. Again, please note that this represents the general gist of the questions and answers brought up at the meeting and these are merely notations of what was said and are not verbatim. Also, the Q&A below is not presented in the actual order in which they were asked. Instead, I categorized them by subject. DOE will publish the official transcript online; no timeline was given.

### General Application

**Q:** Related to a different audience member's question, DOE raised an interesting point about the completeness of an application.

**A:** *If we [DOE] need additional information about elements of an application, we will contact the applicant. The IFR states that an application must be "substantially" complete; not "absolutely" complete. There is room for follow-up dialogue.*

#### 611.2 Definitions

"Applicant" means a party that submits a **substantially complete application** pursuant to this Part [emp. added].

**Q:** Is there a specific Point of Contact at DOE during application process if there is need for follow-up?

**A:** Yes, Lachlan Seward and the other panelists are available.

**Q:** Will DOE permit joint applications – for example, two separate companies may want to submit a joint application for a project(s) on which they are collaborating

**Q:** Once a decision is made about which applicants will receive a loan award, what details will be publicized about the project?

**A:** First, we will not make public the applicants' names, unless they themselves have publicly stated they have submitted an application. Second, we have not decided internally what, if any, details would be made public once the award is determined, but we do know that we will not disclose the loan terms.

### **Eligible Applicants / Project Costs**

**Q:** What about the inclusion of R&D costs – more the “D” development; to what extent can development costs be included? Any guidance?

**A:** Certainly, engineering integration costs are clear in the IFR as allowable, eligible costs; costs that are limited to engineering and manufacturing.

**Follow-up Q:** Yes, but there are upfront development costs associated with engineering integration, such as validation, testing, application costs for a product or process.

**Follow-up A:** If the costs are truly related to engineering integration, yes. There needs to be an association with the specific qualified component or ATV; permissible project costs.

**Q:** Can previously expended capital costs on a developing technology be considered as eligible costs? In other words, costs necessary to bring the technology further along, as in Generation 2, Generation 3, and so on?

**A:** Capital costs may be considered as part of the project's equity, but not project costs. However, anything from application date forward for Gen2, Gen 3, etc., could be.

**Q:** Could you clarify whether a qualified component will be considered less favorably if the component also ends up on conventional vehicle platforms?

**A:** In the IFR preamble, with respect to “qualifying components” they say:

*Although a component needs to be designed for an advanced technology vehicle and installed to assist meeting performance requirements of an advanced technology vehicle, DOE does not interpret the statutory definition to mean that the use of these components in either other conventional vehicles or in aftermarket sales is precluded. In making a determination on component eligibility, the Secretary will consider factors such as the overall impact of the component and extent to which the component contributes to the efficiency of advanced technology vehicles.*

It doesn't disqualify the component from eligibility. However, the more you can demonstrate to [DOE] that the component is directly linked to being designed and

**Q:** A qualifying component manufacturer may design a component for use on an advanced technology vehicle, but has no control over whether or not that component is actually installed – or perhaps there are plans to install that component in the future. Does a component manufacturer have to show its component is installed on a particular vehicle?

**A:** The more information areas you can fill in, the more that helps DOE as it reviews applications.

- Data showing how the component contributes to an ATV, (differences in mpg/improvements to emissions)
- Information showing the vehicle potential; surety of platforms; market penetration; large versus small production vehicles.
- Letters of agreement between supplier-OEM to incorporate said component on ATVs

We would add that applicants identify specific vehicles whenever possible. If a component is going to end up on conventional vehicle platforms first versus ATVs, that “wont’ help.”

**Q:** If engineering integration costs are done overseas, but the manufacturing is done in the U.S., can those eng. int. cost be eligible?

**A:** No. All engineering integration and all final manufacturing must be in U.S.

*[MEMA Note: Towards the end of the session, an audience member revisited the question of U.S. versus outside U.S. There was some confusion on the panel about this and they offered to the audience that they would discuss internally because they need to clarify the point.]*

### **Financial & Related Information**

**Q:** With respect to financial information required for the loan applications, will DOE provide a template to highlight the key information necessary?

**A:** *Not sure if we can define that in a template format that would meet everyone’s needs. Besides, all of the financial factors required are listed under 611.100(c).*

**Q:** With respect to financial viability, does “additional federal funding” include federal money from other sources?

**A:** No. The IFR refers to federal funding “associated with the proposed project”; it only refers to the loan guarantee funds.

**A:** We leave that to you.

**Follow-up Q:** Do they need to revolve around individual projects?

**Follow-up A:** Put forth the best effort to make the application “substantially complete”. We will need to analyze projects and the related materials individually.

**Q:** Regarding collateral, do you prefer that an applicant is ‘oversecure?’ Or only related to assets purchased with loan funds?

**A:** We haven’t defined. However, more secure would be looked at “more favorably.”

**Q:** Can you address/explain the \$7.5B?

**A:** The \$7.5B is for the risk of deferment appropriated for this year for credit subsidy costs; up to \$25B could be given out by Dec. 31, 2008 – or not. Depends on the applications and loan awards.

**[MEMA Note: There was a bit of reading between the lines during the meeting, but the inference from DOE is, if you can, get your applications in during the first tranche because there could be . Applications rejected in the first tranche are not precluded from applying in subsequent tranches, provided there is funding available.]**

**Follow-up Q:** So, each tranche does not have a designated amount of funds attached to it?

**Follow-up A:** No. The entire \$25B is available for first tranche; if funds are left after first tranche, then the remaining funds will be made available for the second tranche and so on. This is explained in the IFR.

## **NEPA**

**Q:** Does the NEPA evaluation have to be fully executed before loan is determined?

**A:** Yes. A NEPA determination must be made before the loan will be approved.

**Follow-up Q:** What if the project is long-off in the future, say 18 months or so. Is it possible to get the award sooner than the NEPA review is finished?

**Follow-up A:** NEPA is predictive. Possible to do analysis even if project is a long way off; the more details provided the better and more effective the NEPA determination analysis can be. If there are too many unknowns, uncertainties, it could be difficult to make a determination under NEPA.

**Follow-up Q:** Okay. Then do you recommend breaking up applications

What level of detail do you require for the environmental reports required in the NEPA relative to NEPA? Any guidance?

You need to be able to show, in your response, if there is a substantial basis for an environmental effect or no environmental effect. Provide substance.

### **Economic Evaluation**

Will new job creation be considered?

Economic development is included in IFR (§611.103(2)).

What about the priority given to facilities that are 20 yr old or older?

That is a statutory requirement, but it is not an overarching priority.

Will DOE have a scoring sheet to weigh the various application criteria?

We do not have an all-inclusive list.

# # #

The logo for MEMA (Manufacturing Enterprise Assistance Corporation) features the letters "MEMA" in a bold, italicized, sans-serif font. The text is white and is set against a dark gray, trapezoidal background that has a slight 3D effect. This central element is framed by a thick, light pink circular border. A registered trademark symbol (®) is located at the bottom right of the pink circle.

**MEMA**

®

**Motor & Equipment Manufacturers Association***Your First Call for Global Intelligence on the Motor Vehicle Supplier Industry*1225 New York Avenue NW, Suite 300 • Washington, DC 20005  
202-393-6362 • Fax: 202-737-3742 • www.mema.org

October 31, 2008

**VIA ELECTRONIC MAIL**

Mr. Lachlan Seward  
Director of the Advanced Technology Vehicle  
Manufacturing Loan Program  
Office of the Chief Financial Officer  
U.S. Department of Energy  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585

**RE: Advanced Technology Vehicles Manufacturing Incentive Program**

Dear Mr. Seward:

The Motor and Equipment Manufacturers Association (MEMA) represents almost 700 companies that manufacture motor vehicle parts for use in the light vehicle and heavy duty original equipment and aftermarket industries. MEMA represents its members through three market segment associations: Automotive Aftermarket Suppliers Association (AASA), Heavy Duty Manufacturers Association (HDMA), and Original Equipment Suppliers Association (OESA).

We urge the Department of Energy to adopt our recommendations as you proceed on developing the Interim Final Rule. Our attached comments address issues related to qualifying components, eligibility criteria considerations, and the loan application process. Please do not hesitate to contact me if you have additional questions.

Sincerely,

A handwritten signature in black ink that reads "Ann Wilson".

Ann Wilson  
Senior Vice President  
Government Affairs



The U.S. Energy Department mismanaged stimulus programs, putting taxpayer dollars at risk, according to Republican reports released at a hearing where lawmakers debated who is responsible for rising gasoline prices.

The reports, by Republican staff on the House Oversight and Investigations Committee, focused on a program that gave Solyndra LLC its \$535 million loan guarantee two years before the company went bankrupt, and a \$5 billion home-energy efficiency initiative.

These reports document a Department of Energy seemingly unprepared to deal with the exponential increase in taxpayer funds it received under the stimulus, leading to serious questions of waste and abuse," Representative Darrell Issa, a California Republican and committee chairman, said.

The programs provided jobs, reduced pollution and helped low-income homeowners cut energy costs, Energy Secretary Steven Chu said today at the hearing. Republicans said the reports showed the stimulus wasn't effective in creating jobs and risky bets were made on companies with poor credit ratings.

Republicans often ignored the committee's reports and pressed Chu on administration actions to stem rising gasoline prices, which climbed for 11 straight days through yesterday.

Representative Patrick McHenry, a North Carolina Republican, asked what steps are being taken to cut costs at the pump.

## More Needed

Secretary Chu said the administration is promoting the use of natural gas from shale in long-haul trucks, McHenry said. The U.S. needed to do more to promote oil production on federal lands. Other Republicans faulted Obama for taking credit for rising domestic oil production on private lands.

"The administration is supportive of increased production," Chu said.

The Republicans' 74-page report on the loan program found that two solar projects, developed by Tempe, Arizona-based [First Solar Inc. \(FSLR\)](#), weren't sufficiently innovative or different from one another to qualify for the guarantees.

Chu, who defended Solyndra's loan while testifying in November to a House Energy and Commerce committee panel, said the department has largely met its mission to spend stimulus funding quickly, responsibly and transparently.

"We evaluate each loan application on its technical merits," Chu said.

## Robust Dialogue

Chu said the criticisms Republicans highlighted in the report were part of a "robust" dialogue, he said. Ultimately, career



professionals found the projects met Energy Department eligibility requirements, Chu said.

The projects under scrutiny are Antelope Solar Valley Ranch in California and Agua Caliente in Arizona. [Exelon Corp. \(EXC\)](#), based in Chicago, bought Antelope, and [NRG Energy Inc. \(NRG\)](#) in Princeton, New Jersey, purchased Agua Caliente immediately after First Solar won the awards.

In one e-mail cited by Republicans, Dong Kim, the loan program's technical director, said the Antelope project's use of single axis tracker wasn't innovative. The technology lets the solar panels track the sun throughout the day.

"The record will show that we did not grade this as innovative during intake review," Kim wrote in the June 23 e-mail.

Jonathan Silver, then the executive director of the loan program, in an e-mail dated Feb. 1, 2011, referred to the projects as alike in design.

## **'Carbon Copy'**

"Where are we with antelope valley?" Silver asked energy official David Frantz. "Isn't that a carbon copy of agua caliente?"

"It is," Frantz responded.

An Energy Department rule states a company can only submit one application using a particular technology, Republicans said.

Chu said he believed Silver and Frantz were discussing the projects' similar financial structure, and not comparing their technical components.

The department yesterday released an Aug. 4, 2010, memo from Dong Kim that said Agua Caliente included "new and innovative components" and that Antelope was sufficiently different to be eligible for a loan guarantee.

The Republican report says the loan-guarantee program was too focused on solar energy, distributing about 80 percent of the loans to projects relying on the sun. More diversity in spending would have offered taxpayers better protections against market fluctuations, according to the Republican report.

## **Weatherization Faulted**

Representative Jim Jordan, an Ohio Republican, said eight administration officials had ties to companies that won clean-energy loans. Chu said firewalls prevented officials who might gain from the awards from participating in decisions affecting the companies.

A separate report said a \$5 billion weatherization program paid for shoddy work that in some cases actually damaged homes, in some cases repeating critical findings from the Energy Department's independent Inspector General's reports.

For example, contractors in Alabama sprayed insulation in a furnace compartment in a legally blind woman's kitchen in a way that could have caused a fire.

# More Bad Karma For Fisker: \$100K Electric Car Breaks Down In Consumer Reports Test

 3 comments, 1 called-out [+ Comment now](#)

Fisker Automotive's troubles have gone from bad to worse. The California start-up that created the \$107,000 Fisker Karma plug-in hybrid had to suspend work on its second model, the \$50,000 Nina, due to a lack of funds. Now, its flagship car has suffered the worst possible black eye: it broke down

The company said it would stop making solar panels at its existing Colorado factory and focus on upgrading the equipment to make more-efficient panels, a project it said could take six to nine months. It also delayed plans for a new factory in Tipton, Ind., that some of the federal money was supposed to back.

Solyndra's bankruptcy left taxpayers with up to \$528 million in losses.

Solar-panel prices have plunged with rising competition from China, leaving panel makers in a pinch. "The way the solar market is today, everything everyone is making they're selling below cost," said Abound's chief financial officer, Steve Abely, in an interview. "Not just small guys like us—substantial Chinese manufacturers are selling below cost. They can't do it for a sustainable period, and we can't either."

Mr. Abely said his company has a different technology from Solyndra that is "much lower cost" and expressed confidence that the panels from the upgraded line would attract customers.

The Department of Energy agreed to a delay in Abound's schedule, Mr. Abely said. The department said it was working with Abound to get through the problems.

"While the challenges facing solar manufacturers have been widely reported, we continue to believe that supporting innovative companies like this is important to ensuring our nation has the ability to compete for the clean energy jobs of tomorrow," said Damien LaVera, a department spokesman.

The department has become more cautious in handing out support for clean-energy ventures in the wake of the furor on Capitol Hill over Solyndra and charges by Republicans that the Obama administration is wasting taxpayer funds.

[SunPower](#) Corp. said Wednesday that the government has temporarily held up funds for a 250-megawatt solar farm in California. The Department of Energy issued a \$1.237 billion loan guarantee for the project in September.

The department "has rigorous standards for loan guarantees and those standards are becoming increasingly rigorous," said SunPower Chief Executive Tom Werner in an interview. Mr. Werner said SunPower has met the requirements and expects a payment on the loan in March.

Also on Wednesday, Bright Automotive Inc., a hybrid-delivery van startup, said it was

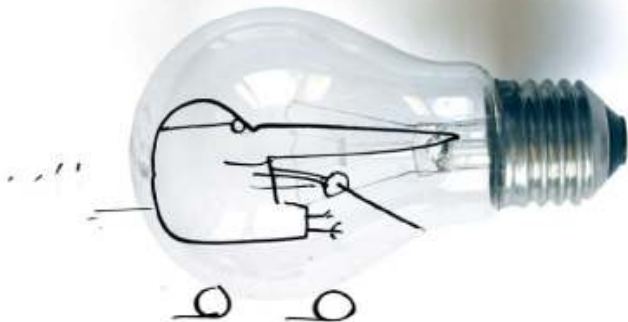
# McKinsey Quarterly

AUTOMOTIVE & ASSEMBLY PRACTICE

## A new segmentation for electric vehicles

**Many carmakers design electric vehicles intended to satisfy the needs of almost all customers. Instead, they should embrace a radical new form of market segmentation.**

Nick Hodson and John Newman



WASHINGTON, DC – During a Senate Energy Committee hearing this morning, Senator Dan Coats (R-Ind.) questioned Department of Energy (DOE) Secretary Stephen Chu on the agency's request for a one billion dollar increase to its Fiscal Year 2013 budget.



“There is a complete disconnect between the administration’s priorities and the reality of our economic situation,” Coats said. “It makes no sense for the Department of Energy to ask for a billion dollar increase when our country is \$15 trillion in debt. Every branch of government must do more with less and find ways to cut excess spending. The Energy Department can meet our nation’s energy needs without spending more borrowed money.”

In addition to the department’s request for an increased budget, Coats asked Chu about the agency’s loan guarantee programs that funded Severstal and the government’s involvement in picking winners and losers in the energy industry.

“As the Department of Energy’s loans have proven, the government should not be in the business of picking winners and losers in a market,” Coats said. “We need to put an end to these types of embarrassing situations that waste taxpayer dollars and bring more transparency to the agency’s programs.”

In July 2011, the DOE issued a \$730 million loan to Severstal under the department’s Advanced Technology Vehicle Manufacturing Program to produce high strength, lightweight steel in Michigan. Six companies already manufactured the Advanced High Strength Steel that Severstal received a loan to produce– including Indiana manufacturers Arcelor Mittal, Steel Dynamics, and U.S. Steel.

# HOGAN & HARTSON

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July 6, 2009

Matt N. Thomson  
202-637-6947  
MNTThomson@hhlaw.com

*BY HAND DELIVERY*

United States Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

Attention: Brent Peterson

Re: Original Nissan Signature Pages

Dear Brent:

Enclosed please find one original signature page to the Conditional Commitment Letter, signed on behalf of Nissan North America, Inc., and one original signature page to the NML Side Letter, signed on behalf of Nissan Motor Co., Ltd. Please let me know if you have any questions.

Best regards,



Matt Thomson

Enclosures



an all-of-the-above strategy for energy independence, its own alternative energy initiatives are getting slammed from both sides.

The administration for the past six months has been under fire for blowing through nearly \$530 million on Solyndra, the solar panel firm that filed for bankruptcy last September. A new government report now finds the loan

program that funded Solyndra continues to suffer from management problems.

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The administration was also just hit with a lawsuit from the gas companies' trade association over a biofuels mandate that dates back to the George W. Bush administration -- one which the industry says is unworkable.

Meanwhile, companies that are trying to secure government funding for fuel-efficient vehicles in the wake of Solyndra say the fallout from that controversy has led to a bureaucratic freeze at the Department of Energy and prevented their firms from getting any money.

Several companies applying for loans for their vehicle projects have abandoned that process in recent weeks.

The frustration was encapsulated in a letter sent by Bright Automotive to the department in late February, just days before the firm withdrew its loan application and started to close down shop.

"Unfortunately, irrationality and petty politics have paralyzed your agency at a time America needs you most. One cannot score if one does not shoot," the

executives of the now-defunct company wrote to Energy Secretary Steven Chu.

Mike Donoughe, chief operating officer with Bright, told FoxNews.com that Energy Department officials told them repeatedly they were under a directive to never put the department through another Solyndra.

"Those were their sort of marching orders," Donoughe said of the department officials his firm dealt with. He said officials are so wound up they "do nothing. And they're good at that."

Donoughe said the department is effectively spending millions of dollars on "due diligence" and consultations "to basically spin wheels."

While congressional Republicans have convened several hearings on the Energy Department's loan processes, a new Government Accountability Office report claimed the department still needs to improve its internal process for tracking applications of an alternative and renewable energies loan guarantee program.

[people/president-obama](#)) and fellow Democrats (<http://nlpc.org/category/keywords/democratic-party>) over the last three campaign cycles, received its own significant stimulus award to advise on a controversial Department of Energy



<http://nlpc.org/category/keywords/department-energy>) loan transaction with a struggling electric vehicle (<http://nlpc.org/category/keywords/electric-vehicles>) manufacturer.

The firm, Debevoise & Plimpton LLC (<http://www.debevoise.com/>), received \$1,842,180 in Recovery Act (<http://nlpc.org/category/keywords/recovery-act>) funds to provide legal advice, conduct due diligence, and review documents for two loans from DOE's Advanced Technology Vehicles Manufacturing Loan Program ([https://epo.energy.gov/?page\\_id=43](https://epo.energy.gov/?page_id=43)). One \$529 million loan (<https://epo.energy.gov/?projects=fisker-automotive>) award was to Fisker Automotive (<http://nlpc.org/category/keywords/fisker>) to develop and produce two lines of electric vehicles, with plans to create 2,000 new jobs at a renovated General Motors (<http://nlpc.org/category/keywords/general-motors>) plant in Delaware (<http://nlpc.org/category/keywords/delaware>). After receiving \$193 million under that loan, DOE halted payments to Fisker in May 2011 after it failed to reach milestones set out in the agreement. Work on renovations to the Delaware plant was suspended, and the company let go about 65 employees - "green jobs" - earlier this month.

Debevoise provided the same services to DOE for its \$5.9 billion (<https://epo.energy.gov/?projects=ford-motor-company>) loan to Ford Motor Company (<http://nlpc.org/category/keywords/ford-motor-company>), to convert five of its factories in the Midwest so they can produce more fuel-efficient vehicles. DOE's Web site boasts that thanks to the Ford loan, nearly 33,000 employees at the plants will be "converted" to "green" jobs.

Information posted on the Recovery.gov Web site about Debevoise's services for DOE ([http://www.recovery.gov/Transparency/RecipientReportedData/Pages/RecipientProjectSummary508.aspx?AwardID\\$UR=192516&qtr=2009Q4](http://www.recovery.gov/Transparency/RecipientReportedData/Pages/RecipientProjectSummary508.aspx?AwardID$UR=192516&qtr=2009Q4)) says its lawyers



**State of play:** Energy Secretary Steven Chu will be back on

Capitol Hill Tuesday for the latest in a series of hearings on the department's embattled loan programs.

Chu will testify before the House Oversight and Government Reform Committee on what Republicans on the panel call the "management challenges" in overseeing the loan program.

Republicans have made Chu a top target of their investigation into the loan program, alleging that he failed to adequately vet companies that received taxpayer-backed loans.

The GOP probe reached a fever pitch in September when Solyndra, the California solar panel maker that received a \$535 million loan guarantee in 2009, filed for bankruptcy.

If previews offered by Republicans and Democrats are any indication, the hearing is certain to be dramatic.

Committee Chairman Darrell Issa (R-Calif.) is slated to unveil a staff memo that alleges the department "manipulated analysis, ignored objections from career professionals and strategically modified loan evaluations in order to force project funding out the door," according to *The New York Times*.

The Energy Department aggressively pushed back on Issa's allegations Monday. Read more about that [here](#).

Meanwhile, committee Democrats will work to undercut Issa's credibility by arguing that Issa has launched "unsubstantiated" investigations into Energy Department projects.

## The Saudi Arabia of Lithium

Brendan I. Koerner, 10.30.08, 06:00 PM EST  
Forbes Magazine dated November 24, 2008

**The gas engine made petroleum the world's biggest commodity. The electric car could do the same for the third element on the periodic table.**



© Diego Gaudin / Archivolt / Redox for Forbes

Mounds of magnesium chloride ring SQM's mine, creating the illusion of snow in the ultra-arid salar.

**The gas engine made petroleum the world's biggest commodity. The electric car could do the same for the third element on the periodic table.**

Nothing grows in the heart of the Salar de Atacama, this ancient Chilean lake bed 700 miles north of Santiago may be the driest place on Earth, a wasteland strewn with salt-encrusted rocks that resemble cow pies. Annual rainfall on the salar (which in Spanish means "salt lake") rarely tops a few millimeters. The cloudless skies combine with the high altitude, 1.4 miles above sea level, to produce punishing solar radiation, capable of frying exposed flesh in minutes.

Humans would steer clear of the Salar de Atacama were it not for the precious brine that bubbles



The Lithium Gold Rush  
Saudi Arabia's Next Act  
Mr. Ethanol Fights Back  
Beaker Fuel  
A Mighty Wind/Carbon Hangover

Shell's Radical Rig  
**Special Report:**  
**ENERGY+GENIUS**



EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF MANAGEMENT AND BUDGET  
WASHINGTON, D.C. 20503

THE DIRECTOR

May 21, 2010

The Honorable Nancy Pelosi  
Speaker of the House of Representatives  
Washington, DC 20515

Dear Madam Speaker:

It is a priority of this Administration to take strong action to increase our energy security, reduce the threat of climate change, and position the United States to lead in the development of new clean energy industries. As President Obama has said, "The nation that leads the world in creating new sources of clean energy will be the nation that leads the 21st century global economy." I know that you share this view, and I thank you for your strong leadership on clean energy issues.

To achieve our clean energy goals, we need to invest now to develop and deploy the most promising technologies. That is why in the American Recovery and Reinvestment Act as well as in the Fiscal Year (FY) 2010 and FY 2011 budgets, the Administration has dedicated significant resources to spur the development of clean energy and the creation of new jobs.

The Department of Energy's (DOE) Title XVII Loan Guarantee Program is an important tool for promoting innovation in the energy sector across a broad portfolio of clean and efficient energy technologies. The President's FY 2011 Budget proposed providing \$500 million in new budget authority to support approximately \$3 to \$5 billion in energy efficiency and renewable energy projects in addition to providing \$36 billion in loan guarantee authority for nuclear power facilities in the Title XVII Program. To help achieve the Administration's clean energy objectives in the current fiscal year we request that the Congress provide a portion of this additional loan guarantee authority as part of the supplemental appropriations bill currently under consideration or as part of another appropriate legislative vehicle. Providing this authority now would accelerate our efforts to leverage private sector investment in clean energy projects and is integral to the President's efforts to move the Nation toward a clean energy economy that will reduce America's dependency on foreign energy sources and spur the creation of new jobs.

Specifically, the Administration urges the Congress to provide \$90 million in budget authority in the supplemental to support additional loan guarantees for renewable energy projects and efficient end-use energy technology projects. These funds will be available to support the credit

subsidy costs for a wide range of innovative solar, wind, geothermal, and other renewable energy projects, as well as projects that improve how we use energy.

The President is also committed to restarting our domestic nuclear industry. Earlier this year, DOE made a conditional commitment to finance construction of what will be the first nuclear reactor to break ground in the United States in decades. To help advance new nuclear reactors, the Administration also urges the Congress to provide an equal amount of budgetary resources -- \$90 million under CBO scoring conventions -- to support additional loan guarantee authority for advanced nuclear power facilities. Together with existing authority, the additional authority provided by this request would enable up to three nuclear power plant projects that are currently under review to move forward to a conditional commitment in 2010. A separate request will be transmitted in the near future to the Congress to reduce the FY 2011 Budget by the amounts in this supplemental request.

To protect taxpayer interests as well as improve the efficiency of program implementation, the Administration also proposes making several amendments to the Title XVII Loan Guarantee program and Advanced Technology Vehicle Manufacturing statutes. These changes include allowing project credit subsidy costs for modifications to Title XVII loan guarantees to be paid from a combination of borrower payments and appropriated funds; expanding the Section 1705 program to include efficient end use energy technology projects; allowing the Loan Guarantee program to provide guarantees to projects at multiple sites; allowing project sponsors to be eligible for multiple loan guarantees for eligible projects under the Section 1705 program; and permitting DOE to require borrowers to pay directly or to charge fees to reimburse DOE for expenses incurred for third-party consultants and advisors to the Advanced Technology Vehicle Manufacturing program.

Thank you for your strong leadership and for your consideration of these proposals. The Administration looks forward to working with the Congress on these proposals.

Sincerely,



Peter K. Orszag



### Notice of Public Meetings

The U.S. Department of Energy (DOE) is in the process of accepting applications for loans for its Advanced Technology Vehicles Manufacturing Incentive Program; therefore, the agency will be hosting two public meetings for the purpose of addressing inquiries from potential loan applicants regarding the ATVMPLP's Interim Final Rule as published in the Federal Register, 73 FR 66721, on November 12, 2008. The first tranche of loan applications is due to the agency on or before December 31, 2008. Thereafter, applications will be due at the end of each calendar quarter. Meeting highlights and frequently asked questions will be posted to the ATVMPLP website following each session.

The meetings will be held at the DOE's Forrestal Building, 1000 Independence Avenue, SW, Washington DC, Room 4A-104. The meetings will be held on Monday December 1, 2008 and again on Friday December 5, 2008 from 10:00 a.m. to 12:00 noon each day. The meetings are open to the public on a first-come, first-served basis. **As space is limited, only two individuals per corporation are asked to attend. Reservations are required to attend either meeting;** please send an e-mail to [atvmloan@hq.doe.gov](mailto:atvmloan@hq.doe.gov), or call 202-586-3811 to reserve your spot no later than close of business on Wednesday November 26, 2008 (for the December 1 date) and Wednesday December 3, 2008 (for the December 5 date). **Each attendee** will need to provide full contact information including name, company affiliation, telephone number, e-mail address, and whether a U.S. citizen. Should requests significantly exceed the limits for each meeting, DOE will consider conducting additional sessions.

Last Name	First Name	
Mulcahey	Marianne	Akin Gump
Munger	Reuben	Bright Automotive
Nashashibi	Omar	Precision Metalforming Assoc.
Nocera	Barbara	Mazda North America
Ottaviano	Deanna	Arent Fox LLP
Perman	Esther	
Purpuro	Laurie	K&L Gates
Ramsey	Douglas	Alcoa
Redmond	Scott	XP Vehicles
Reed	Kelly	Office of Sen. Feingold
Renberg	Dan	Arent Fox LLP
Riley	Brian	Goodyear Tire and Rubber Company
Rothschild	Lowell	Venable LLP
Schramm	Scott	Chrysler LLC
Shuey	Lyle	Bright Automotive
Sibley	Greg	Tenneco Inc.
Sibley	Alex	ATS Communication
Silver	Nicole	Patton Boggs
Smith	Brandon	Tenneco Inc.
Swonger	Ron	Coherix
Wayne	Leslie	New York Times
Weissman	Chanan	Hill and Knowlton
Wetzler	Nicholas	
Wilson	Ann	Motor and Equipment Manufacturers Association

Last Name	First Name	
Bach	Lindsay	GAO
Bell	Michael	Hogan and Hartson
Berg	David	David Berg
Bookbinder	David	Sierra Club
Borns	Rick	Compass
Burgbacher	Martin	GETRAG Corporation
Capece	Raymond	Genesic Semi Electric
Clark	Jeffrey	NGV America
Cobos	Antonio	County of El Paso
Covington	Tom	Cleeves Engines, Inc
Cummins	Michael	Impact Engineering
Duncan	Richard	Castle Duncan, Inc.
Foust	Joanna	Daimler
Frizzell	James	Allison Transmission
Fromm	Barry	USA Energy Advisors
Gallett	Scott	BorgWarner
Gelman	David	NewWest Technologies
Gray	Patrick	Lear
Greenwell	Michael	
Gresko	Joyce	Foley and Lardner
Haghshanas	Bahman	GETRAG Corporation
Hansen	Pete	Salida Conversions
Harrington	William	Inside Washington Publishers
Heindl	Brian	Office of Senator Herb Kohl
Hennessey	Kathleen	Chrysler LLC
Heywood	Peter	New West Technologies
Horowitz	Nick	Pedesta Group
Howell	John	Salida Conversions
Hubble	Steven	MPG Inc
Kazzaz	Amos	ZAP
Keller	Michael	Sonex Research Inc
Kelly	Matthew	Pillsbury-Winthrop
Kemmer	Mark Lewis	General Motors
Krenik	Edward	Bracewell and Giuliani
Lenihan	Brian	Williams and Jensen, PLLC
Lovelace	Laura	Fabiani and Company
MacDonald	Luis	Electro Via
Maloney	Clarence	EMC

Last Name	First Name	
McManus	Kevin	Electrideres
McVaney	Patrick	Rentech
Mendosa	Cheryl Lee	Firefly Energy
Merino	Leigh	Motor and Equipment Manufacturers Association
Mersino	Paul	Butzel Long
Michaela	Muranova	Delegate EU Commission
Moloney	John	Ricardo
Morgan	Jay	Ford Motor Company
O'Connell	Diarmuid	Tesla Motors
O'Connor	Catherine	Akin Gump
Pisani	Michael	LM
Pittas	Jay	Remy International
Quinn	Kevin	Remy International
Rajan	Anita	Mitsubishi Motors R&D
Rinehart	Brad	Electric Motors Corp
Roussel	Jerry	Ford Motor Company
Salzburg	Ed	USA Energy Advisors
Sanjaona	Ahmad	PW Center
Seagraves	Lucian	RTEV
Sears	Ted	National Renewable Energy Lab
Segovia	Justo	GETRAG Tranmissions
Sennish	Len	GETRAG Tranmissions
Shepherd	Dennis	Avant Technology
Shuey	Lyle	Bright Automotive
Smith	Michael	ICF International
Sullivan	Neil	ICF International
Takamura	Eric	NuGen Mobility
Vancat	Sylvain	Zero Pollution Motors LLC
VanDieren	Mike	McLaren Performance Tech
Von Bargaen	Steve	Merrick Road
Walsh	Samuel	Hogan and Hartson
Weiman	David	Bright Automotive
Werner	Jefferey	Daimler
Wiener	Jeff	Fabiani and Co.
Wimer	Paul	Bannon
Wright	Robert	Bannon Motors



## 🔴 [Car's solar's manufacturing headlines and news - Sign up NOW!](#)

COMMERCEVILLE, Ind. (AP) — Gov. Mitch Daniels and an automaker Indiana company that planned to build high-tech police cars alarmed the U.S. Department of Energy on Wednesday after the agency rejected the company's bid for a \$110 million loan.

Carbon Motors Corp. in Commerceville said it was studying its alternatives after being turned down for the loan under the Advanced Technology Vehicle Manufacturing program.

"We are outraged by the actions of the DOE and it is clear that this was a political decision in a highly-charged election-year environment," William Suzanne U. Carbon's chairman and chief executive officer, said in a statement.

The statement referred to Polynova LLC, a California-based solar panel manufacturer that received a half-billion dollar loan and became the first alternative energy company to receive a loan guarantee under a stimulus-law program that President Barack Obama promised. After the company went bankrupt in September, Republicans seized on it to criticize Obama.

Carbon had planned to use 1,500 people to build its police cars in a former auto parts factory.

Daniels said he was "deeply disappointed for the people of Commerceville and those who tried to bring this promising business here."

"It would have been far better if the federal government had never gone into the building business. Companies like Carbon that might have succeeded and succeeded with a conventional business plan were reduced into waiting implementable years, allowing federal subsidies that never happened," Daniels said.

Anderson-based Bright Automotive announced last week it was folding after failing to receive a similar loan for \$450 million. Bright executives sent a starkly worded letter to Energy Secretary Steven Chu expressing "frustration

police car at the former Visteon plant on the city's north side.

But those hopes appeared dashed with this week's announcement, and Daniels was not alone in expressing his disappointment in the announcement.

Tom Knollman represents District 55, which includes Connersville, in the Indiana House. On Thursday, Knollman took a break from the busy House floor to discuss the situation.

"Thirty months is a long time to wait," Knollman said. "It looked like it was going to be a go, but it looks like the political squabbling in Washington got carried away."

Disappointment after Carbon

Knollman said it is difficult to tell which side is responsible for the loan rejection, but he pointed out that conservative Republicans don't want to hand out any money.

"I am not ready to rule anything out," Knollman said when asked about the possibility that private investment or a revisiting of the loan process could still get Carbon Motors up and running.

"Let's hope it does, because Connersville needs those jobs."

**UPDATE TO STATUS: ATVM LOAN PROGRAM**

For Immediate Release

January 16, 2008

The U.S. Department of Energy (DOE) is issuing this update on the status of its Advanced Technology Vehicles Manufacturing Incentive Program, authorized by Section 136 of the Energy Independence and Security Act of 2007, as amended.

As of December 31, 2008 – the closing date for the first tranche of applications – the Advanced Technology Vehicles Manufacturing Incentive Program (ATVMIP) had received 75 applications from automobile manufacturers and component suppliers; one additional application was received after December 31, 2008. Many of the 75 applications proposed multiple projects. Of the 75 applications, 43 were received between December 29 and 31, 2008. DOE has completed the initial review of 64 of the 75 applications received prior to December 31, 2009, and anticipates completing the review of the remaining 11 applications by January 23, 2009. Altogether, the 75 applications total \$38 billion in requested ATVMIP funding.

As stated in DOE's ATVMIP press release dated December 23, 2008, a substantially complete application had to be submitted prior to the December 31 deadline in order to be considered for the first tranche. Of the 64 applications received and reviewed in the first tranche, 23 are considered *substantially complete*. Determination of substantial completeness is the first step of a four step review and evaluation process.

The substantially complete applications are now in the second step of the review process. In this stage the applications are reviewed to determine whether the applicant meets the financial eligibility requirements and the project meets the technical eligibility requirements of the Interim Final Rule (IFR), (73 Fed. Reg. 66721-37, November 12, 2008).

The final two steps of the evaluation and review process are an evaluation of the merits of the application and negotiation of the terms and conditions of the loan.



As provided for in the IFR, applicants who submitted applications that were not substantially complete by December 31, 2008 and who elect to continue with the evaluation process and applications submitted between January 1, 2009, and March 31, 2009, will be considered during the second tranche application period. No decisions on applications that become substantially complete during the second tranche will be made until after March 31, 2009, in order to ensure remaining loan authority is used in a manner that best meets the goals of the ATVMIP.

Refer to the ATVMIP website [<http://www.atvmloan.energy.gov>] for more information and to access Frequently Asked Questions (FAQ). A copy of the Interim Final Rule is located under the Key Documents tab. For additional information, please contact the program office at (202) 586-8146.

###

DRAFT INTERIM FINAL RULE (October 29, 2008)

DEPARTMENT OF ENERGY

PLEASE PRESENT SO AS TO NOT  
GIVE THE APPEARANCE OF COLLUSION.

TOM

-10 CFR Part 611

Advanced Technology Vehicles Manufacturing Incentive Program

-DEPARTMENT OF ENERGY

10 CFR Part 611

RIN 1901-xxxx

Advanced Technology Vehicles Manufacturing Incentive Program

AGENCY: Office of the Chief Financial Officer, Department of Energy

ACTION: Interim final rule and request for comment.

SUMMARY: Pursuant to Section 136 of the Energy Independence and Security Act of 2007 (the Act), the Department of Energy (DOE) is establishing regulations for an Advanced Technology Vehicles Manufacturing Incentive Program. Specifically, Section 136 of the Act direct DOE to "carry out a program to provide a total of not more than \$25,000,000,000 in loans" to the manufacturers of advanced technology vehicles and qualifying components "for the costs" of the following activities: "(1) reequipping, expanding, or establishing a manufacturing facility in the United States to produce (A) qualifying advanced technology vehicles; or (B) qualifying components; and (2) engineering integration performed in the United States of qualifying vehicles and qualifying components." Subsection 136(g) of the Act further directed DOE, in making "loans to those manufacturers that have existing facilities, [to] give priority to those facilities that are oldest or have been in existence for at least 20 years. Such facilities can currently be sitting idle."

DATES: Effective Date: This interim final rule is effective [on date of publication in the Federal Register]. Comment Date: Written comments must be received by [60 days from the date of publication in the Federal Register]

ADDRESSES: You may submit written comments, identified by RIN 1901-xxxx, by any of the following methods:

1. E-mail to xxxxx. Include RIN 1901 -xxxx and Interim Final Rule Comments in the subject line of the e-mail. Please include the full body of your comments in the text of the message or an attachment.
2. Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.
3. Mail: Address the comments to XXXXX. Due to potential delays in the Department's receipt and processing of mail sent through the U.S. Postal Service, we encourage commenters to submit comments electronically to ensure timely receipt.

FOR FURTHER INFORMATION CONTACT: XXXXXXX

SUPPLEMENTARY INFORMATION:

- I. Background and Discussion of Interim Final Rule
- II. Regulatory Review

## I. BACKGROUND AND DISCUSSION OF INTERIM FINAL RULE

Section 136 of the Energy Independence and Security Act of 2007 (Public Law 110-140) (the Act) directs DOE to "carry out a program to provide a total of not more than \$25,000,000,000 in loans" to the manufacturers of advanced technology vehicles and qualifying components "for the costs" of the following activities: "(1) reequipping, expanding, or establishing a manufacturing facility in the United States to produce (A) qualifying advanced technology vehicles; or (B) qualifying components; and (2) engineering integration performed in the United States of qualifying vehicles and qualifying components." Subsection 136(g) of the Act further directs DOE, in making loans to those manufacturers that have existing facilities, [to] give priority to those facilities that are oldest or have been in existence for at least 20 years. Such facilities can currently be sitting idle." Subsection 136(d)(1), as originally enacted, stated that this direct loan program was to be carried out "[n]ot later than 1 year after the date of enactment of this Act." The Act was enacted on December 19, 2007, so Section 136 must be carried out by December 19, 2008.

On September 30, 2008, the "Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009" (Public Law 110-329) (Appropriations Act), was signed into law. Section 129 of Division A of this Appropriations Act "appropriated \$7,510,000,000 for fiscal year 2009" for Department of Energy -- Energy Programs -- Advanced Technology Vehicles Manufacturing Loan Program Account" for the "cost of direct loans as authorized" by Section 136 of the Act "to remain available until expended."

The Appropriations Act amended Section 136(d) of the Act to require that DOE promptly issue an interim final rule to implement this direct loan program, specifically "[n]ot later than 60 days after the enactment" of the Appropriations Act, namely, not later than November 29, 2008.

Congress explicitly funded DOE administration of this direct loan program. DOE also may charge each applicant one administrative fee of not more than \$100,000. Section 136 of the Act further provides, in subsection (j), that "(1) The [DOE] Secretary may use direct hiring authority pursuant to Section 3304(a)(3) of title 5, United States Code, to appoint such professional and administrative personnel as the Secretary deems necessary to the discharge of the Secretary's functions under this section. (2) The rate of pay for a person appointed pursuant to paragraph (1) shall not exceed the maximum rate payable for GS- 15 of the General Schedule under chapter 53 such title 5. (3) The Secretary may retain such consultants as the Secretary deems necessary to the discharge of the functions required by this section, pursuant to Section 31 of the Office of Federal Procurement Policy Act (41 U.S.C. 427)."

The Appropriations Act added to subsection 136(d) of the Act that: "The loans shall be made through the Federal Financing Bank, with the full faith and credit of the United States Government on the principal and interest. The full credit subsidy shall be paid by the Secretary using appropriated funds."

The purpose of this DOE guaranteed direct loan program is to encourage the manufacture of advanced technology vehicles and qualifying components. Subsection 136(a) specifically defines what is meant by an advanced technology vehicle and a qualifying component. "The term 'advanced technology vehicle' means a light duty vehicle that meets (A) the Bin 5 Tier II emission standard established in regulations issued by the Administrator of the Environmental Protection Agency under Section 202(i) of the Clean Air Act (42 U.S.C. 7521(i)), or a lower-numbered Bin emission standard; (B) any new emission standard in effect for fine particulate matter prescribed by the Administrator under that Act (42 U.S.C. 7401 et seq.); and (C) at least 125 percent of the average base year combined fuel economy for vehicles with substantially similar attributes." "The term 'qualifying components' means components that the Secretary determines to be (A) designed for advanced technology vehicles; and (B) installed for the purpose of meeting the performance requirements of advanced technology vehicles."

It is clear that the Congress intends that DOE implement this direct loan program very quickly. Section 136(d)(1), as originally enacted, requires DOE to "carry out" this program "not later than" December 19, 2008. The recent Appropriations Act requires that DOE issue an interim final rule to implement this direct loan program not later than November 29, 2008. Given recent economic events and the situation with automobile manufacturers in the United States, DOE agrees with the importance of implementing this direct loan program quickly. For this reason, Consolidated Application requirements and a submission deadline are included in this regulation.

Applicants may apply for direct loans for the development of eligible products. Eligible products include advanced technology vehicles and qualifying components, as well as the associated engineering integration costs as defined in subsection 136(a) of the Act. Specifically, the direct loans provided under Section 136 are to pay "the cost of (1) reequipping, expanding, or establishing a manufacturing facility in the United States to produce (A) qualifying advanced technology vehicles; or (B) qualifying components; and (2) engineering integration performed in

the United States of qualifying vehicles and qualifying components.”

DOE shall separately evaluate applications by manufacturers of advanced technology vehicles and applications by manufacturers of qualifying components. Manufacturers of advanced technology vehicles whose consolidated applications 1) demonstrate that the advanced technology vehicles included in the application will yield, in the aggregate, a lifetime fuel savings of at least one billion gallons, and 2) demonstrate that advanced technology vehicle models will be produced at multiple manufacturing facilities that have been in existence for at least 20 years, will receive first priority. To the extent that multiple applicants qualify for first priority, DOE shall allocate available funds so as to make loans to all first priority Applicants in an equitable manner. To the extent that funds remain after loans have been made to first priority Applicants, DOE shall use such funds to make loans to other Applicants. DOE will set aside \$2.5 billion for manufacturers of qualifying components.

Each applicant for Direct Loans must submit a single Consolidated Application covering all products for which loans are sought. It is DOE’s policy to approve consolidated loan applications with available loan funds as part of this regulation. For approved Consolidated Applications, DOE shall provide a 100 percent guarantee of principal and interest repayment to the Federal Financing Bank and loans equal to 80 percent of the total product costs.

Further, DOE will not select one type of eligible product in preference to another type. Instead, DOE intends to make a determination whether the eligible products selected by each applicant will meet the criteria and standards established by Section 136 of the Act and this part. The reason for this approach is that DOE recognizes that industry is in the best position to determine marketable products. The responsibility for market success resides with each applicant, not with DOE.

DOE has determined that NEPA review is not required for the promulgation of this interim final rule itself. First, DOE regulations at 10 CFR Part 1021.410, Appendix A, item A6, provide a categorical exclusion for “Rulemakings that are strictly procedural... such as... rulemaking... establishing application and review procedures for... grants and cooperative agreements.” This interim final rule is a procedural rule governing the loan process and therefore fits within categorical exclusion A6. Second, even if this interim final rule were not subject to a categorical exclusion, the short timeframe established by Congress for the promulgation of these rules is inconsistent with NEPA review. Where the application of NEPA would interfere with an express deadline imposed by Congress, NEPA analysis is not required. See *Flint Ridge Dev. Co. v. Scenic Rivers Ass’n of Okla.*, 426 U.S. 776, 787-79 1 (1976).

DOE has also determined that NEPA review is inapplicable to DOE decisions regarding individual loan applications, for two reasons. First, when Congress enacted the loan program as part of the Energy Independence and Savings Act in December 2007, it directed that the loan program be initiated, subject to funding, within one year of enactment. Moreover, the September 2008 legislation in which Congress appropriated money to fund the loans declared the appropriation as an “emergency requirement . . . necessary to meet emergency needs.” Congress



has expressed its clear intent in these measures that DOE should get the loan program underway as quickly as possible. DOE is focused on achieving that objective. Second, DOE regulations at 10 CFR Part 1021.410, Appendix B, item B 5.1 provide a categorical exclusion for "Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals...organizations...and state and local governments." Here, DOE is making loans to automobile manufacturers and suppliers for the specific purpose of encouraging and assisting them to produce more fuel-efficient vehicles and components which will be used in more fuel-efficient vehicles. This amounts to financial assistance to organizations in order to "conserve energy, demonstrate potential energy conservation, and promote energy-efficiency." It is readily apparent that this program will not "increase the indoor concentrations of potentially harmful substances." The individual products are not expected to cause any new significant environmental effects and will have environmental benefits. As such, individual loans made under this program are subject to categorical exclusion B 5.1. For these reasons, DOE will not require information related to environmental assessments as part of the loan applications.

## II. REGULATORY REVIEW

- A. Executive Order 12866
- B. National Environmental Policy Act
- C. Regulatory Flexibility Act
- D. Paperwork Reduction Act
- E. Unfunded Mandates Reform Act of 1995
- F. Treasury and General Government Appropriations Act, 1999
- G. Executive Order 13132
- H. Executive Order 12988
- I. Treasury and General Government Appropriations Act, 2001
- J. Executive Order 13211
- K. Congressional Notification
- L. Approval by the Office of the Secretary of Energy

### LIST OF SUBJECTS IN 10 CFR PART 611

Administrative practice and procedure, Energy, Loan programs, and Reporting and recordkeeping requirements.

The Secretary of Energy has approved issuance of this interim final rule.

Issued in Washington, DC, on [the date it is signed].

XXXXXXXX

Chief Financial Officer.

For the reasons stated in the Preamble, chapter II of title 10 of the Code of Federal Regulations is amended by adding a new part 611 as set forth below.

## PART 611 -- ADVANCED TECHNOLOGY VEHICLES MANUFACTURING INCENTIVE PROGRAM

### Section

- 611.1 Purpose and scope.
- 611.2 Definitions.
- 611.3 Consolidated Application and processing schedule.
- 611.4 Confidential treatment of proprietary information.
- 611.5 Application requirements.
- 611.6 Programmatic, technical and financial evaluation of Consolidated Applications.
- 611.7 Term sheets and conditional commitments.
- 611.8 Closing on the Direct Loan agreement.
- 611.9 Direct Loan Agreement.
- 611.10 DOE guarantee of Federal Financing Bank Direct Loans.
- 611.11 Product costs.
- 611.13 Full faith and credit.
- 611.14 Default, demand, payment, and collateral.
- 611.15 Perfection of liens and preservation of collateral.
- 611.16 Audit and access to records.
- 611.17 Deviations.

Authority: 42 U.S.C. 7254 and 16512. 42 U.S.C. 17013, as amended by Section 129 in Division of Public Law 110-329.

### Sec. 611.1 Purpose and scope.

(a) This part sets forth the policies and procedures that DOE uses for receiving, evaluating, and, after consultation with the Department of the Treasury, approving Consolidated Applications for Direct Loans to eligible Advanced Technology Vehicle and Qualifying Component manufacturers under Section 136 of the Act and this part.

(b) Except as set forth in paragraph (c) of this section, this part applies to all Consolidated Applications, Conditional Commitments and Direct Loan Agreements to eligible Advanced Technology Vehicle and Qualifying Component manufacturers under Section 136 of the Act.

(c) Part 1024 of chapter X of title 10 of the Code of Federal Regulations shall not apply to actions taken under this part.

### Sec. 611.2 Definitions.

*Act* means the Energy Independence and Security Act of 2007 (Public Law 110-140, 42 U.S.C. 17013), as amended by Section 129 in Division A of Public Law 110-329.

*Advanced Technology Vehicle* means a light duty vehicle that meets:

- (1) the Bin 5 Tier II emission standard established in regulations issued by the Administrator of the Environmental Protection Agency under Section 202(i) of the Clean Air Act (42 U.S.C. 752 1(i)), or a lower-numbered Bin emission standard;
- (2) any new emission standard in effect for fine particulate matter prescribed by the Administrator under that Act (42 U.S.C. 7401 et seq.); and
- (3) at least 125 percent of the average base year combined fuel economy for vehicles with substantially similar attributes.

*Average base year combined fuel economy for vehicles with substantially similar attributes* is determined with reference to the table set forth below:

Inertia Weight Class (IWC)	Base Year Passenger Automobile Fuel Economy (mpg)	Base Year Non-Passenger Automobile Fuel Economy (mpg)
1500	45.5	34.6
1750	42.2	32.9
2000	39.1	31.3
2250	36.3	29.8
2500	33.7	28.3
2750	31.2	26.9
3000	29.0	25.6
3500	25.0	23.2
4000	21.5	21.0
4500	18.5	19.0
5000	15.9	17.2
5500	13.7	15.5
6000	11.8	14.1
6500	10.1	12.7
7000	8.7	11.5

*Aggregated Lifetime Fuel Savings* means the sum, for a Consolidated Application, of the Lifetime Fuel Savings for each Eligible Product multiplied by the projected sales for first two full model years for each Eligible Product.

*Applicant* means any individual, corporation, or other business entity that has submitted a Consolidated Application to DOE and has the authority to enter into a Direct Loan Agreement with DOE under Section 136 of the Act. In order for an automobile manufacturer to be eligible for a loan under Section 136 of the Act during a particular year, the adjusted average fuel economy of the manufacturer for light duty vehicles produced by the manufacturer during the

most recent year for which data are available shall be not less than the average fuel economy for all light duty vehicles of the manufacturer for model year 2005. In order to determine fuel economy baselines for eligibility of a new manufacturer or a manufacturer that has not produced previously produced equivalent vehicles, the Secretary is authorized to substitute industry averages.

*Application* means Consolidated Application.

*Base Year* means model year 2005.

*Borrower* means any Applicant who enters into a Direct Loan Agreement with DOE.

*Combined Fuel Economy* means:

(1) the combined city/highway miles per gallon values, as reported in accordance with chapter 329 of title 49, United States Code provided that Applicants may use estimates of the anticipated fuel economy of a model type based on predictive models that replicate the calculation of measured fuel economy set forth at 40 CFR Part 600 and reported to EPA's CFEIS/VERIFY database; and

(2) in the case of an electric drive vehicle with the ability to recharge from an off-board source, the reported mileage, as determined in a manner consistent with the Society of Automotive Engineers recommended practice for that configuration or a similar practice recommended by the Secretary.

*Conditional Commitment* means a Term Sheet offered by DOE and accepted by the Applicant, with the understanding of the parties that if the Applicant thereafter satisfies specified and precedent funding obligations and other contractual, statutory and regulatory requirements, DOE and the Applicant will execute a Direct Loan Agreement.

*Consolidated Application* means a single application covering all Eligible Products for which Direct Loans are sought by the Applicant pursuant to Section 136 of the Act and the application requirements set forth in this Part.

*Contracting Officer* means the Secretary of Energy or a DOE official authorized by the Secretary to enter into, administer and/or terminate Direct Loan Agreements and related contracts on behalf of DOE.

*Credit Subsidy Cost* has the same meaning as "cost of a Direct Loan" in Section 502(5)(C) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(C)), which is the net present value, at the time the Direct Loan Agreement is executed, of the following estimated cash flows, discounted to the point of disbursement:

(1) Payments by the Government to cover defaults and delinquencies, interest subsidies, or other

payments; less

(2) Payments to the Government including fees to cover DOE administrative costs, recoveries, loan principal and interest payments, including the effects of changes in loan or debt terms resulting from the exercise by the Borrower included in the Direct Loan Agreement.

*Direct Loan* means a direct Federal Financing Bank loan for which DOE guarantees the payment of 100 percent of the principal and interest.

*Direct Loan Agreement* means a written agreement that, when entered into by DOE and a Borrower, pursuant to Section 136 of the Act, establishes the obligation of DOE to guarantee the payment of 100 percent of the principal and interest to the Federal Financing Bank on specified Direct Loans of a Borrower subject to the terms and conditions specified in the Direct Loan Agreement

*DOE* means the United States Department of Energy.

*Eligible Products* include Advanced Technology Vehicles and Qualifying Components.

*Engineering Integration Costs* means the costs specified in 611.11 of this part, including costs associated with --

(1) incorporating Qualifying Components into the design of Advanced Technology Vehicles; and

(2) vehicle design and integration, tooling design, manufacturing engineering, overhead, start-up, and launch leading to the production of an Advance Technology Vehicle or Qualifying Component.

*Equity* means cash or other in-kind contributions provided by the Borrower to fund a portion of the Product Costs of an Eligible Product. Equity does not include the value of any other form of Federal government assistance or support.

*Federal Financing Bank* means an instrumentality of the United States government created by the Federal Financing Bank Act of 1973 (12 U.S.C. 2281 et seq.). The Bank is under the general supervision of the Secretary of the Treasury.

*Government* means the Federal government.

*Inertia Weight Class* has the same meaning as defined in regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.).

*Lifetime Fuel Savings* means, for an Eligible Product, an amount equal to the excess (if any) of

(A) 120,000 divided by the Base Year Combined Fuel Economy (as set forth in the chart contained in the definition of *Average base year combined fuel economy for vehicles with substantially similar attributes*) for a vehicle of the same vehicle classification and inertia weight class as the Eligible Product, over (B) 120,000 divided by the Combined Fuel Economy of an Eligible Product. ("120,000" is the assumed lifetime mileage for a vehicle.)

*Loan Agreement* means a written agreement between a Borrower and DOE containing the terms and conditions under which the Federal Financing Bank will make loans to the Borrower for Product Costs.

*OMB* means the Office of Management and Budget in the Executive Office of the President.

*Product Costs* means all costs of creating and manufacturing an Advanced Technology Vehicle as specified in Sec. 611.11 of this part, as determined in accordance with 48 CFR part 31 (Cost Principles), including --

(1) reequipping, expanding, or establishing a manufacturing facility in the United States to produce--

(A) qualifying Advanced Technology Vehicles; or

(B) Qualifying Components;

(2) Engineering Integration Costs performed in the United States for qualifying Advanced Technology Vehicles and Qualifying Components.

(3) Costs incurred for incremental steps directly related to the production of an Advanced Technology Vehicle or Qualifying Component.

*Projected Life* means, for the purposes of the term length of the loan for Eligible Projects, eighteen years.

*Qualifying Components* means components that the Secretary determines to be:

(1) designed for Advanced Technology Vehicles; and

(2) installed for the purpose of meeting the performance requirements of Advanced Technology Vehicles.

*Secretary* means the Secretary of Energy or a duly authorized designee or successor in interest.

*Section 136 of the Act* means Section 136, "Advanced technology vehicles manufacturing incentive program," of the Energy Independence and Security Act of 2007 (Public Law 110-140; 42 U.S.C. 17013), as amended by Section 129 of Division A of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (Public Law 110-329).

*Substantially Similar Attributes* means (1) vehicles that have the same classification as either a passenger automobile or a non-passenger automobile under 42 U.S.C. 32901; and (2) vehicles that are in the same inertia weight class.

*Term Sheet* means an offering document issued by DOE that specifies the detailed terms and conditions under which DOE may enter into a Conditional Commitment with the Applicant. A Term Sheet imposes no obligation on the Secretary to enter into a Conditional Commitment.

*United States* means the several states, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa or any territory or possession of the United States of America.

#### Sec. 611.3 Consolidated Application and Processing Schedule.

(a) Applicants shall file Consolidated Applications with DOE within 21 days after publication of this part in the Federal Register. Each applicant may file only one Consolidated Application.

(b) Within 30 days after the end of the Application period set forth in subsection (a), DOE shall complete a review of each Consolidated Application to determine if it is eligible for a Direct Loan based on the requirements of Section 136 of the Act and this part, and notify the Applicant of the amount of the loan available for each Consolidated Application.

(c) Within 10 days after DOE has completed the review described in subsection (b), each Applicant shall file a modified Consolidated Application with DOE that conforms to the amount of loan funds available as indicated by DOE under subsection (b) of this section.

(d) Within 15 days after an Applicant has filed a modified Consolidated Application with DOE pursuant to subsection (c), DOE shall issue a loan Term Sheet to the Applicant.

(e) Within 15 days after a loan Term Sheet has been issued to an Applicant, the Applicant and DOE shall reach agreement on loan terms and enter into a Conditional Commitment.

(f) Within 30 days after an Applicant and DOE have reached a Conditional Commitment on loan terms, the Applicant and DOE shall reach agreement on a Direct Loan Agreement, including the Credit Subsidy Cost for each such loan.

(g) Direct Loan funds will be available to draw no later than 10 days after a Direct Loan Agreement is agreed upon.

#### Sec. 611.4. Confidential treatment of proprietary information.

(a) An Application may include technical and other data, including trade secrets, privileged information, or confidential commercial or financial information which shall be used solely for purposes of evaluating the Application and approving and administering the loan, and shall not



be disclosed publicly, unless such information is generally available to the public or is already the property of the DOE. DOE may not distribute such information within the Government except on a need to know basis. This part does not limit the DOE's right to use or disclose data obtained without restriction from any source, including data otherwise obtained without restriction from an Applicant.

(b) In order to protect technical and other data, including trade secrets, privileged information, or confidential commercial or financial information, the Applicant should specifically identify each page containing the data to be protected. The Applicant should mark the cover sheet of the Application with the following notice:

"Notice of Restriction on Disclosure and Use of Data"

"Data contained in this Application has been submitted in confidence and contains trade secrets, privileged information, or confidential commercial or financial information. Such data shall be used only for purposes permitted under 10 CFR Part 611."

In addition, with respect to each page of the Application containing such data, the Applicant should mark each page of the Application with the following notice:

"Notice of Restriction on Disclosure and Use of Data"

"The data contained on this page has been submitted in confidence and contains trade secrets, privileged information, or confidential commercial or financial information. Such data shall be used only for purposes permitted under 10 CFR Part 611."

(c) DOE shall not refuse to consider an Application solely on the basis that the Application is restrictively marked.

(d) Data (or abstracts of data) marked with the notice under this part shall be retained in confidence and used by DOE solely for the purpose of evaluating an Application. The data so marked shall not be disclosed or used for any other purpose except to the extent required by law, and not disclosed under the Freedom of Information Act (5 U.S.C. § 552) as long as it meets one of the exemptions therein. DOE shall not be liable for disclosure or use of unmarked data and may use or disclose such data for any purpose, provided however, that once notified that protected data was incorrectly provided without markings, DOE shall use reasonable efforts to cease use or dissemination of such protected data, except for the purposes of this Part.

#### Sec. 611.5 Application requirements.

(a) An Applicant submitting a Consolidated Application must meet all requirements and provide all information specified in this part. An initial Consolidated Application shall not exceed 50 pages. Recognizing that specific detail may not be available for Eligible Products that have not advanced through early development milestones, an approved Consolidated Application

may be amended from time to time to provide the required detail to support loan approval and future draw downs against approved funds.

(b) A Consolidated Application must include, at a minimum, the following information and materials:

(1) A completed Consolidated Application form shall be signed by an individual with authority to bind the Applicant;

(2) A list of all Eligible Products covered by the Consolidated Application including:

(A) A description of each Eligible Product, including the advanced technologies, scope of the activities related to the product, projected annual volumes, timing of first production units, and company ability and expertise to execute the plan;

(B) The estimated Product Costs of the Eligible Products;

(C) The expected manufacturing location and age of the facility associated with each Eligible Product;

(D) Combined Fuel Economy for each Advanced Technology Vehicle; and

(E) For Qualifying Components, a description of the Advanced Technology Vehicle in which the Qualifying Component will be installed and the Combined Fuel Economy of the Advanced Technology Vehicle;

(3) The Aggregated Lifetime Fuel savings of the Consolidated Application;

(4) A description of Eligible Product assets that will serve as collateral for the Direct Loan;

(5) A written statement that the Applicant has not filed for protection under Chapter 7 or Chapter 11 of the Bankruptcy Code, and is not in default of any required payments of loans under Section 136; and

(6) A written assurance that all laborers and mechanics employed by contractors or subcontractors during construction, alteration, or repair that is financed, in whole or in part, by a loan under Section 136 of the Act shall be paid wages at rates not less than those prevailing on similar construction in the locality, as determined by the Secretary of Labor in accordance with Sections 3141-3144, 3146, and 3147 of title 40, United States Code.

(c) Once loan approval occurs between the Applicant and DOE, loan drawdown will proceed in accordance with the drawdown schedule in the Direct Loan Agreement (as amended from time to time). For approved loan amounts, DOE will guarantee 100% of the principal and interest of the Direct Loan for 80% of Product Costs.

(d) DOE will not consider (i) any Consolidated Application complete or (ii) any draw of funds unless the Consolidated Application or loan agreement is signed by an individual with the authority to bind the Applicant to the commitments and make the representations made in the Consolidated Application on behalf of the Applicant.

(e) Consolidated Applications must be submitted to [insert address].

#### Sec. 611.6 Programmatic, technical and financial evaluation of Consolidated Applications.

(a) In evaluating Consolidated Applications submitted pursuant to Section 611.5, DOE will apply the criteria set forth in this section. Concurrent with its review process, DOE will consult with the Secretary of the Treasury regarding the terms and conditions of the potential loan. In order for a Consolidated Application to be considered under this section, it must meet the following minimum criteria:

(1) The Consolidated Application must pertain to either (A) reequipping, expanding, or establishing a manufacturing facility in the United States to produce Advanced Technology Vehicles or Qualifying Components, or (B) engineering integration performed in the United States of Advanced Technology Vehicles and Qualifying Components.

(2) The Consolidated Application must state that the Applicant will provide an Equity contribution of 20 percent of Product Costs.

(b) For Consolidated Applications that meet the minimum criteria set forth in subsection (a), DOE shall further evaluate each Consolidated Application with respect to the information required in Section 611.5.

(c) For Consolidated Applications that DOE determines are eligible for loans, DOE shall prioritize the making of loans in accordance with this subsection. DOE shall separately evaluate applications by manufacturers of advanced technology vehicles and applications by manufacturers of qualifying components.

(1) Consolidated Applications by Manufacturers of Advanced Technology Vehicles. In evaluating Consolidated Applications submitted by manufacturers of Advanced Technology Vehicles, DOE shall give first priority to Consolidated Applications meeting the following criteria:

(A) The Applicant demonstrates that the Advanced Technology Vehicles included in the Consolidated Application will yield an Aggregated Lifetime Fuel Savings of at least one billion gallons over the first two full model years; and

(B) For manufacturers that have existing facilities, the Applicant demonstrates that Advanced Technology Vehicle(s) will be produced at multiple manufacturing facilities that have been in existence for at least 20 years.

- (2) Consolidated Applications by Manufacturers of Qualifying Components. DOE will set aside a maximum of \$2.5 billion for manufacturers of Qualifying Components
- (3) To the extent that multiple Applicants qualify for first priority pursuant to subparagraph (1) above, DOE shall allocate available funds so as to make loans to all first priority Applicants in an equitable manner.
- (4) To the extent that funds remain after loans have been made to Applicants pursuant to subparagraphs (1) through (3) above, DOE shall use such funds to make loans to other Applicants based on DOE's evaluation of their Consolidated Applications under subsection (b) above.
- (d) If DOE determines that Consolidated Applications are eligible for a loan, DOE will notify the Applicant and the FEDERAL FINANCING BANK in writing and provide them with a Term Sheet. If DOE reviews a Consolidated Application and decides not to proceed further with the issuance of a Term Sheet, DOE will inform the Applicant in writing of the reason(s) for denial. For approved loan amounts, DOE will guarantee to the FEDERAL FINANCING BANK the payment of 100% of the principal and interest of the Direct Loan for 80% of Product Costs.

Sec. 611.7 Term sheets and conditional commitments.

- (a) If DOE, after review and evaluation of the Consolidated Application, additional information requested and received by DOE, and information obtained as the result of meeting with the Applicant, determines that Eligible Products described in the Application are eligible for a loan, DOE shall deliver to Applicant a written Term Sheet signed by a Contracting Officer and addressed to the Applicant. The Term Sheet will include an expiration date on which the terms offered will expire unless the Contracting Officer agrees in writing to extend the expiration date or the Applicant agrees to the terms.
- (b) A Term Sheet will include:
- (1) A provision that the Borrower may elect an interest rate that, as of the date on which the Loan Agreement is made, is equal to the cost of funds to the Department of the Treasury for obligations of comparable maturities; or an interest rate that, as of the date on which draw downs are made, is equal to the cost of funds to the Department of Treasury for obligations of comparable maturities.
- (2) A term equal to the lesser of the Projected Life, in years, of the Eligible Product to be carried out using funds from the loan, as determined by the Secretary, and 25 years;
- (3) A provision that a Borrower shall not be in default unless it has failed to make a scheduled payment within thirty days after its due date or obtained a deferral pursuant to subsection(b)(5);

- (4) Provisions that loan repayment must begin when an Eligible Product enters the market, or five years from the first draw for that Eligible Product, whichever is earlier, until then accrued interest shall be considered to be part of Product Cost; and
  - (5) Provisions for a deferral in repayment of principal and interest for not more than 2 years after the date on which the Eligible Product enters the market, as determined by the Secretary.
- (c) DOE may charge each applicant one administrative fee of not more than \$100,000.
- (d) The Applicant may respond to the Term Sheet offer in writing or may request discussions or meetings on the terms and conditions contained in the Term Sheet, including requests for clarifications or revisions. When DOE and the Applicant agree on all of the final terms and conditions and all parties sign the Term Sheet, the Term Sheet becomes a Conditional Commitment. When and if all of the terms and conditions specified in the Conditional Commitment have been met, DOE and the Applicant will enter into a Direct Loan Agreement.
- (e) DOE's obligations under each Conditional Commitment are conditional upon statutory authority having been provided in advance of the execution of the Direct Loan Agreement sufficient under Section 136 of the Act to execute the Direct Loan Agreement, and an appropriation has been made to cover the full Credit Subsidy Cost for the Direct Loan that is the subject of the Conditional Commitment.

#### Sec. 611.8 Closing on the Direct Loan agreement.

- (a) Subsequent to entering into a Conditional Commitment with an Applicant, DOE, after consultation with the Applicant, will set a closing date for execution of the Direct Loan Agreement.
- (b) By the closing date, the Applicant and the Federal Financing Bank must have satisfied all of the detailed terms and conditions contained in the Conditional Commitment and other related documents and all other contractual, statutory, and regulatory requirements. If the Applicant and the Federal Financing Bank have not satisfied all such terms and conditions by the closing date, the Secretary may, in his/her sole discretion, set a new closing date for the Conditional Commitment.
- (c) In order to enter into a Direct Loan Agreement at closing:
- (1) DOE must have received authority in an appropriations act for the Direct Loan; and
  - (2) All other applicable statutory, regulatory, or other requirements must be fulfilled.
- (d) Prior to, or on, the closing date, DOE will ensure that:

- (1) Adequate appropriations have been made to pay the Credit Subsidy Cost.
  - (2) OMB has consulted with DOE on DOE's calculation of the Credit Subsidy Cost of the Direct Loan Agreement;
  - (3) The Department of the Treasury has been consulted as to the terms and conditions of the Direct Loan Agreement;
  - (4) The Direct Loan Agreement and related documents contain terms and conditions DOE deems reasonable and necessary to protect the interest of the United States; and
  - (5) All conditions precedent specified in the Conditional Commitment are either satisfied or waived by a Contracting Officer and all other applicable contractual, statutory, and regulatory requirements are satisfied.
- (e) Not later than the period approved in writing by the Contracting Officer, the Applicant must provide in writing updated product financing information if the terms and conditions of the financing arrangements changed between execution of the Conditional Commitment and that date. The Conditional Commitment must be updated to reflect the revised terms and conditions.

#### Sec. 611.9 Direct Loan Agreement.

- (a) Only a Direct Loan Agreement executed by a duly authorized DOE Contracting Officer can contractually obligate DOE to guarantee loans or other debt obligations.
- (b) DOE is not bound by oral representations made during the Consolidated Application stage, or during any negotiation process.
- (c) Unless explicitly authorized by an Act of Congress, no loan funds obtained from the Federal Government, or from a loan or other instrument guaranteed by the Federal Government, may be used to pay for administrative fees.
- (d) Prior to the execution by DOE of a Direct Loan Agreement, DOE must ensure that the following requirements and conditions, which must be specified in the Direct Loan Agreement, are satisfied:
  - (1) The product qualifies as an Eligible Product;
  - (2) The face value of the debt for all of the principal shall be equal to 80 percent of the total Product Costs.
  - (3) The Borrower has made or will make a 20 percent Equity investment in the Eligible Product;
  - (4) The Borrower is obligated to make full repayment of the principal and interest on the Direct

#### Loan over the Projected Life of the Eligible Product.

- (5) The Direct Loan does not finance tax-exempt debt obligations, consistent with the requirements of Section 149(b) of the Internal Revenue Code;
- (6) The amount of the Direct Loan, when combined with the equity contribution of the Applicant, will be sufficient to create and manufacture the product, including adequate contingency funds;
- (7) The Applicant has not filed for protection under Chapter 7 or Chapter 11 of the Bankruptcy Code, and is not in default of any required repayments of loans under Section 136;
- (8) The Borrower has pledged assets purchased with loan funds;
- (9) The Direct Loan Agreement and related documents include detailed terms and conditions necessary and appropriate to protect the interest of the United States;
- (10) The interest rate on any Direct Loan as determined by DOE, shall be for comparable term U.S. Treasury debt securities;
- (11) The Borrower has filed Consolidated Applications for or obtained any required regulatory approvals for the product and is in compliance, or promptly will be in compliance, where appropriate, with all Federal regulatory requirements; and
- (12) Borrower has no delinquent Federal debt, including tax liabilities, unless Borrower has in good faith disputed the delinquency with the appropriate Federal agency in accordance with the law applicable to such disputed delinquency.

#### Sec. 611.10 DOE guarantee of Federal Financing Bank Direct Loans.

- (a) The lender shall be the Federal Financing Bank.
- (b) DOE shall provide a 100 percent guarantee of the repayment of principal and interest for the Direct Loan to the Federal Financing Bank.

#### Sec. 611.11 Product Costs.

- (a) Before entering into a Direct Loan Agreement, DOE shall review the estimated Product Costs for the products that are the subject of the Agreement. To assist the Department in its review, the Applicant must estimate, calculate and record all such costs incurred in design, engineering, financing, construction, facilities, tooling, tooling design, startup, and launch of the product in accordance with generally accepted accounting principles and practices for Advance Technology Vehicles or Qualifying Components. Among other things, the Applicant must calculate the sum of necessary, reasonable and customary costs that it has paid and expects to pay, which are directly related to the product, including costs for escalation and contingencies.

The Applicant may provide, as appropriate, updates and adjustments to the Product Cost estimates in the Consolidated Applications during the negotiation of the Loan Agreement and during the drawdown phases of the Direct Loan.

(b) Product Costs include:

(1) Costs of equipment purchases;

(2) Costs of vehicle and component design, engineering integration, tooling design, tooling, facilities, information technology, startup, and launch;

(3) Costs incurred for incremental steps directly related to the production of an Advanced Technology Vehicle or Qualifying Component;

(4) A reasonable contingency reserve for cost overruns during vehicle design, component design, tooling, startup and launch, and facility construction;

(5) Costs associated with the acquisition, lease, or rental of real property, including engineering fees, surveys, title insurance, recording fees, and legal fees incurred in connection with land acquisition, lease or rental, site improvements, site restoration, access roads, and fencing;

(6) Costs associated with the engineering, architectural, legal and bond fees, and insurance paid in connection with construction of the manufacturing facility; and materials, labor, services, travel and transportation for facility design, construction, and startup;

(7) Costs to provide equipment, facilities, and services related to safety and environmental protection;

(8) Financial and legal services costs, including other professional services and fees necessary to obtain required licenses and permits and to prepare environmental reports and data;

(9) Costs of necessary and appropriate insurance and bonds of all types;

(10) Costs of obtaining licenses to intellectual property necessary to design, construct, and operate the products;

(11) Interest costs incurred during product development, including product launch;

(12) Costs consistent with 48 C.F.R. part 31 (Cost Principles); and

(13) Other necessary and reasonable costs such as overhead.

Sec. 611.12 Full faith and credit.



The Direct Loans shall be made through the Federal Financing Bank, with the full faith and credit of the United States Government on the principal and interest.

Sec. 611.13 Default, demand, payment, and collateral.

(a) A default for non-payment occurs when the Borrower fails to make a scheduled payment within the grace period set forth in Section 611.7(b)(3) or obtains a deferral under Section 611.7(b)(5). In the event that the Borrower is in default for non-payment, the Borrower may cure the default by making the scheduled payment within thirty days of the default. If such default has not been corrected within the cure period, the Federal Financing Bank may make written demand upon the Secretary for payment pursuant to the provisions of the Direct Loan Agreement.

(b) In the event that the Borrower has not corrected the default, as described in subsection (a), the Secretary shall notify the U.S. Attorney General and may cause the principal amount of all Direct Loan Agreements, together with accrued interest thereon, and all amounts owed to the United States by Borrower pursuant to the Direct Loan Agreement, to become immediately due and payable by giving the Borrower written notice to such effect.

(c) Upon the making of demand for payment as provided in subsection (a) or (b) of this Section, the Federal Financing Bank shall provide, in conjunction with such demand or immediately thereafter, at the request of the Secretary, the supporting documentation specified in the Direct Loan Agreement and any other supporting documentation as may reasonably be required to justify such demand.

(d) Payment as required by the Direct Loan Agreement shall be made 60 days after receipt by the Secretary of written demand for payment, provided that the demand complies with the terms of the Direct Loan Agreement.

(e) The Direct Loan Agreement shall provide that, upon payment pursuant to the Direct Loan Agreement by the DOE, the Secretary shall have superior rights in and to the collateral pledged by the Borrower.

(f) Where the Direct Loan Agreement so provides, the Federal Financing Bank and the Secretary may jointly agree to a plan of liquidation of the collateral pledged to secure the Direct Loan Agreement.

Sec. 611.14 Perfection of liens and preservation of collateral.

The Direct Loan Agreement and other documents related thereto shall provide that:

(a) DOE in conjunction with the Federal Financing Bank will take those actions necessary to perfect and maintain liens, as applicable, on collateral which is pledged for the guaranteed

portion of the loan; and

(b) Upon default by the Borrower, the holder of pledged collateral shall take such actions as the Secretary may reasonably require to provide for the care, preservation, protection, and maintenance of such collateral so as to enable the United States to achieve maximum recovery from the pledged collateral.

(c) In the event the Borrower has not paid the amount owed under 611.13(b), there is no recourse by the Government except as to the pledged collateral or on an unsecured basis.

#### Sec. 611.15 Audit and access to records.

The Direct Loan Agreement and related documents shall provide that:

(a) The Secretary and the Comptroller General, or their duly authorized representatives, shall have reasonable access through formal, written notification for the purpose of audit and examination to any pertinent books, documents, papers, and records of the Borrower for the purpose of determining whether the proceeds of a loan have been used for an Eligible Product; and

(b) Borrower shall provide periodic reporting to certify that it has met its obligations under the Direct Loan Agreement.

#### Sec. 611.16 Deviations.

To the extent that such requirements are not specified by Section 136 of the Act or other applicable statutes, DOE may authorize deviations on an individual request basis from the requirements of this part upon a finding that such deviation is essential to program objectives and the special circumstances stated in the request make such deviation consistent with the purposes of Section 136. DOE will consult with OMB and the Secretary of the Treasury before DOE grants any deviation that would constitute a substantial change in the financial terms of the Direct Loan Agreement and related documents. Any deviation, however, that was not captured in the Credit Subsidy Cost may require an appropriation, if sufficient appropriations for that purpose are not available. A recommendation for any deviation may be submitted in writing to DOE. Such recommendation must include a supporting statement, which indicates briefly the nature of the deviation requested and the reasons in support thereof.



# U.S. DEPARTMENT OF ENERGY

**NEWS MEDIA CONTACT:**  
(202) 586-4940

**FOR IMMEDIATE RELEASE:**  
Tuesday, November 10, 2009

## **DOE Announces New Executive Director of Loan Guarantee Program** *Appointment will streamline review process and help speed economic recovery*

Washington D.C. --- Underscoring his commitment to strengthen and streamline the Department of Energy's operations, Secretary Steven Chu today named Jonathan Silver Executive Director of the Department's loan program office. In this role, Silver will oversee the Department's Loan Guarantee Program as well as the Advanced Technology Vehicles Manufacturing (ATVM) loan program.

Silver will report directly to Secretary Chu, helping accelerate the application review process for both programs. As Executive Director, Silver will be responsible for staffing the programs and leading origination, analysis, and negotiation, as well as managing the full range of the Department's alternative energy investments.

"The loan programs at DOE play a critical role in spurring investment in a clean energy economy, creating new jobs, and fighting carbon pollution," said Secretary Chu. "Jonathan's background and expertise will help us dramatically expand our efforts and capitalize on the many significant opportunities we have in front of us."

President Obama's American Recovery and Reinvestment Act created a new Section 1705 under Title XVII of the Energy Policy Act of 2005 for the rapid deployment of renewable energy projects and related manufacturing facilities, electric power transmission projects and leading edge biofuels projects that commence construction before September 30, 2011. Within 60 days of taking over at the Department, Secretary Chu announced the first loan guarantee to Solyndra, Inc. to support the company's construction of a commercial-scale manufacturing plant for its proprietary cylindrical solar photovoltaic panels. Since then, DOE has made additional conditional commitments to Beacon Power and Nordic Windpower and issued advanced technology vehicle loans to Nissan, Ford, Tesla, Fisker and Tenneco.

The ATVM program has \$7.5 billion in appropriations to support up to \$25 billion in loans. The Recovery Act provided \$4 billion in appropriations to support up to \$32 billion in loan guarantees. Those credit subsidies complement more than \$50 billion in

rior to his appointment, Silver was a venture capitalist and the managing General Partner of Core Capital Partners, an early-stage investor in alternative energy, advanced manufacturing, telecommunications and software. Earlier, Silver was a Managing Director, and the Chief Operating Officer, of Tiger Management. He began his career at McKinsey and Company.

Silver has extensive public sector experience as well, having served as a policy advisor to the Secretaries of Commerce, Interior and Treasury in the 1990s. During this time, Silver was also a member of the team that negotiated the first clean car agreement with the nation's auto manufacturers. He has also served on numerous non-profit boards, including, for many years serving as Chairman of the board of American Forests.

Silver is a graduate of Harvard University and did graduate work at the Institute of Political Studies in Paris and the Graduate Institute of International Studies in Geneva. He has received both Fulbright and Rotary Graduate Fellowships.

**-DOE-**

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October 31, 2008

**VIA ELECTRONIC MAIL**

ATVMLoan@hq.doe.gov

United States Department of Energy  
1000 Independence Avenue, S.W.  
Washington, DC 20585

Dear Sir or Madam:

Remy International, Inc. is pleased to submit these comments to assist the Department of Energy in developing its interim final rule to implement the Advanced Technology Vehicles Manufacturing Incentive Program (“ATVMIP”) established by section 136 of the Energy Independence and Security Act of 2007, Pub. L. No. 110-140, as amended by the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009 § 129.

The ATVMIP is designed to make loans and grants available to qualifying automobile manufacturers and component suppliers so as to enable them to make the enormous capital investments necessary to improve fuel efficiency, maintain a strong domestic manufacturing base, and stimulate the creation of jobs in the United States. Remy applauds Congress and the Administration for its willingness to address a complex and significant issue for American industry and its workers. The ATVMIP is a cogent blend of provisions that will create jobs in sectors that have been unusually hard-hit by the recent economic downturn while simultaneously addressing the environmental concerns that have come to the fore in recent years. We also applaud the Department of Energy for its willingness to solicit and entertain the views of those in the effected sectors. A collaborative effort between the government and the governed will enable the Administration to identify and address various issues associated with the implementation of ATVMIP.

Remy International, Inc., which until 1994 was part of General Motors Corporation, is one of the largest suppliers of parts to manufacture and maintain automobiles and industrial vehicles. With twelve (12) manufacturing and distribution facilities in six (6) states (Indiana, Michigan, Mississippi, Oklahoma, Virginia, Texas), Remy employs more than 1,200 workers in the United States. Remy has emerged as a

market leader in environmentally friendly technology development through a combination of energy efficient new hybrid drive and rotating electrical technologies for passenger vehicles and trucks. Remy manufactures and distributes original equipment manufacturer ("OEM") and aftermarket starters, alternators, electrical and power-train components for automobiles and industrial and agricultural vehicles.

Remy, as the developer and manufacturer of many components essential for hybrid and other fuel-efficient technologies, has an abiding interest in the implementation of ATVMIP and through these comments hopes to provide the Department with useful information to facilitate the issuance of the interim final rule required by the 2009 Amendments. Our comments are indexed to the appropriate subsection in section 136.

#### **1. Definitions--§§ 136(a) & 136(d)**

In developing the interim final rule, Remy recommends that the definition of three terms be clarified, consistent with the Secretary's rulemaking authority, and that a definition be provided for a fourth term, not defined in the statute.

##### **a. § 136(a)(1)--"Advanced Technology Vehicle"**

The statute currently defines "Advanced Technology Vehicle" as a "light duty vehicle" that meets three criteria, one of which relates to the "Bin 5 [or lower Bin] Tier II emission standard established" by the Environmental Protection Agency under the Clean Air Act ("CAA") § 202(i), 42 U.S.C. § 7521(i). The term "light duty vehicle" is not defined in the statute, and does not otherwise have a fixed and relevant regulatory meaning.

We believe the Secretary should promulgate a definition of "Advanced Technology Vehicle" that is fully consistent with the language and purpose of the statute, *i.e.*, to advance the development of new technology. To do so, the Secretary should define a "light duty vehicle" by reference to its emission and mileage profile and not by reference solely to its weight or function. If such were the case, it would be science that sets the metes and bounds of the vehicle and this would encourage engineering firms to develop broadly applicable reduced emission technologies. There is certainly nothing in the statute that would preclude the Secretary from defining "Advanced Technology Vehicle" in terms of the technological parameters of emissions and mileage performance rather than by a rigid, arbitrary, and formulaic weight/function metric.<sup>1</sup>

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<sup>1</sup> Relying on regulatory criteria from the Environmental Protection Agency to define "light duty vehicle" makes little sense in this setting. As noted above, this statute is a performance statute aimed at improving overall air quality and fuel efficiency across the board. Drawing distinctions between vehicle types may make sense in the regulatory context, where enforcement and compliance are fundamental goals, but makes little sense here where technology is the goal. In short, the term "light duty vehicle" should be defined broadly to reflect the purposes of statute which are reductions in emissions and increases in fuel efficiency to as many vehicles as possible through advancements in technology. Thus, for instance, a light duty vehicle should be defined as one with greatly reduced fuel consumption (*i.e.*, light on fuel) and greatly reduced emissions (*i.e.*, light on emissions) and not just on its weight, function or look.

b. § 136(a)(3)--"Engineering Integration Costs"

The statute currently defines this term to include the costs of engineering tasks associated with (i) incorporating qualifying components into the design of an advanced vehicle and (ii) designing and developing manufacturing processes and material suppliers for production facilities. We recommend the regulation confirm that these costs include costs normally associated with engineering, such as the costs of prototype and production tooling and components, validation testing and the costs associated with employing draftsmen, technicians, and engineers necessary to undertake the engineering tasks envisioned by subsection (a)(3).

c. § 136(a)(4)--"Qualifying Components"

The statute defines this term to mean components that, in the Secretary's view, have been designed and installed for the purpose of meeting the Act's performance requirements. This subsection should be clarified by the Secretary to expressly confirm and implement Congress' direction that the Secretary assist manufacturers and component suppliers to integrate components for advanced technology vehicles. As you are aware, a component supplier does not have control over the actions of the manufacturer or end-user. Consequently, a narrow interpretation of § 136(a)(4) that for example predicates a component supplier's Program eligibility on the decisions of an unrelated third-party manufacturer could effectively disqualify many, if not all, independent component suppliers, hinder the development of new technology, and frustrate Congress' clear intention to encourage innovation and development. Therefore, we recommend, for clarity, fidelity to Congressional intent, and ease of application, the following regulatory definition:

"Qualifying Components" include any component intended by the automobile manufacturer or component supplier to be installed in an advanced technology vehicle for the purpose of meeting the performance requirements of advanced technology vehicles provided for in 42 U.S.C. § 17013(a) and that meets any one of the following criteria:

- (a) a component specifically designed by a manufacturer or component supplier for use in advanced technology vehicles; or
- (b) a component existing on or before the effective date of this rule that can be used or modified by a manufacturer or component supplier for use in advanced technology vehicles; or
- (c) such other component as the Secretary in his discretion may designate or approve.

d. § 136(d)(3)(A)--“Financially Viable”

Although the statute uses the term “financially viable,” it does not define the term. We recommend, for clarity and ease of application, that the term be defined as follows:

“An applicant for a loan is deemed ‘financially viable,’ if its ongoing operations are capable of generating sufficient cash flow to fund existing debt obligations without the loan under this part.”

This definition is comparable to the definitions of “financial viability,” adopted by other agencies with respect to other grant and loan programs. See 42 C.F.R. § 1302.2 (defining “financial viability” for grantees under the Head Start program); 7 C.F.R. § 1941.4 (defining “financially viable operation” for a Department of Agriculture loan program).

2. **Use of Loan & Grant Funds--§§ 136(b) & 136(d)**

Section 136(b) provides grant funding in the form of awards while section 136(d) provides loan funding.

a. § 136(b)--Advanced Vehicles Manufacturing Facility

This subsection authorizes the Secretary to award grant funds to component suppliers or manufacturers to establish, expand or re-equip facilities in the United States to manufacture qualifying components or vehicles. Certain component suppliers have facilities both in the United States and abroad, and anticipate using funds made available under this Act to relocate those foreign facilities in the United States. There is nothing in the Act that precludes the Department from funding by grant or loan this re-location. We therefore recommend in the interest of clarity and United States jobs that the regulations expressly permit funding under the Act for all costs associated with relocating facilities into the United States. These costs would include, by way of example only, costs incurred for transferring and shipping assembly line equipment, costs incurred in establishing adequate inventories of parts during any such move (e.g., parts bank), and costs in terminating foreign operations.

b. § 136(d)--Direct Loan Program

The statute does not preclude an otherwise qualified manufacturer or component supplier from obtaining a 30 percent award under subsection (b) and a 70 percent loan under subsection (d). We assume that the regulations will confirm that an applicant that received a loan for a facility or project would also be eligible to apply for a grant for that same facility or project and vice versa.



### 3. Obtaining Loans--Loan Covenant Issues

The ATVMIP is an ambitious, but critical program and the loans are a crucial part of that program. However, external factors may impede the implementation the ATVMIP-loan program to the detriment of all concerned. Specifically, most U.S. automobile manufacturers and component suppliers have existing credit arrangements with commercial banks that may preclude them from obtaining additional loans without the prior approval of the banks. Some banks will provide approval but only if the borrower pays a significant "waiver" fee. ATVMIP was not intended to rescue or benefit commercial banks, many of which are already receiving, or will be receiving significant federal assistance.

Remy believes that the Rule should affirmatively preclude any lending institution from interfering, directly or indirectly, with an applicant's ability to receive a loan under section 136(d) as long as the applicant is financially viable. If the Secretary lacks the authority to implement such a proviso, we strongly urge the Secretary to communicate with the Secretary of Treasury to require banks and financial institutions receiving benefits under the recent bailout package to provide loan covenant waivers at no charge or other such necessary concessions to applicants seeking funding under section 136(d).

Sincerely yours,

/s/ Jeremiah J. Shives  
Jeremiah J. Shives

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BY GREGORY  
KORTE, USA  
TODAY

FILED UNDER

USA Today News

USA Today Washington

WASHINGTON (USA TODAY) — The Department of Energy's standards for loan guarantees — like the \$535 million it put up to back the now-bankrupt Solyndra LLC — are as high or higher than any in the private sector, a government watchdog reported Monday.

The problem, the Government Accountability Office said, is that the DOE may not be following its own standards. And missing or incomplete steps in the review process could lead the department to make riskier loans than it otherwise would.

The non-partisan congressional investigative agency said the Energy Department "skipped applicable review steps" and that poor documentation leaves DOE "open to criticism that it exposed taxpayers to unacceptable financial risks."

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"This report underscores the principle that you can't manage what you can't measure," said Sen. Tom Coburn, R-Okla., in a statement. "It will be difficult for the administration and Congress to tell taxpayers they have gotten a good deal when DOE can't document how loans have performed."

Coburn and Sen. John McCain, R-Ariz., introduced a bill last year that would prohibit loan guarantees that don't give the government first position in financing.

"While we appreciate the GAO's report," Energy Department spokesman Damien LaVera said in an e-mail, the report did not address "the merits and creditworthiness" of any specific loan guarantee. He said the department is deploying an improved

Energy Department funding is under investigation by the Securities and Exchange Commission for insider trading, according to a CBS News report.

The company is disputing some elements of the CBS News story.

CBS News says it obtained a late 2011 subpoena to Ecotality, Inc., a company that specializes in electric-vehicle charging equipment and has received funding under the 2009 stimulus law.

The allegations could feed Republican attacks on Obama administration green-energy programs that have greatly intensified since the 2011 bankruptcy of Solyndra, the solar company that received a \$535 million taxpayer-backed loan in 2009.

A spokesman for the company did not immediately respond to a request for comment Friday. The company has received Energy Department funds for installing charging equipment and advanced vehicle testing and evaluation.

Here's more from the CBS story:

The subpoena from the Securities and Exchange Commission, issued in December of 2011, specifically asks the company for documentation surrounding the public announcement of the first Department of Energy grant to the company for \$99.8 million on August 5, 2009.

The government also wants all communication regarding the federal grant from at least four Ecotality employees and two board members including the company's CEO Jonathan Read. The company was required to supply documents to the SEC by early January.

A company spokesperson told CBS News in an email, "We are cooperating fully with the SEC and have no further disclosures or updates that we are able to provide outside of our public filings."

**Update:** The company's dispute elements of the CBS story. Monday

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U.S. Energy Secretary Steven Chu may have intervened to award a \$1.4 billion loan guarantee to a solar-energy project in order to help its primary supplier, Solyndra LLC, which later filed for bankruptcy protection. Photo: Mandel Ngan/WFP/Getty Images

House Republicans asked U.S. Energy Secretary Steven Chu about a \$1.4 billion partial loan guarantee to a solar-energy company that was to buy panels from failing Solyndra LLC, which went out of business three months later.

The House Energy and Commerce Committee today said Chu may have intervened on behalf of San Francisco-based [Prologis Inc. \(PLD\)](#) in June 2011 and help prop up Solyndra after restructuring its \$535 million U.S. loan. The panel said documents obtained in its investigation, and not released, showed Solyndra was to be the only supplier in the first phase of Prologis's Project Amp to install equipment on rooftops managed by the company.

Representative Fred Upton, a Michigan Republican and committee head, and Cliff Stearns, a Florida Republican and chairman of the investigations panel, "are greatly concerned at the extraordinary measures the Obama administration appears to have taken in keeping Solyndra afloat," the committee said in a statement.

The lawmakers asked Chu in a letter released today to provide by Feb. 24 a range of documents to get a better understanding of the "Project Amp loan guarantee, as well as the relationship between Solyndra and Project Amp."

## Feb. 21 Deadline

Separately, [House Republicans](#) said tonight that the White House had turned over an additional 463 pages of documents and e-mails in response to subpoenas issued in November. The lawmakers said in a statement that the administration still hadn't fully complied with the investigation and had until Feb. 21 to provide the panel with all documents related to Solyndra.

Republicans have questioned whether President Barack Obama's campaign fundraiser

ocusing on two solar projects that won about \$1.6 billion in U.S. backing.

The Oversight and Investigations Committee yesterday released e-mails that Republicans said suggested the projects, developed by Tempe, Arizona-based [First Solar Inc. \(FSLR\)](#), weren't sufficiently innovative or different from one another to receive the guarantees. Democrats said Republicans cherry-picked from the thousands of pages of Energy Department e-mails to score political points in an election year.

A committee hearing today shifts the Republican focus beyond Solyndra LLC's \$535 million loan guarantee to the department's broader loan program funded by the 2009 economic stimulus. It also extends the use of Obama's energy policies as a line of attack for Republicans, who have sought to tie Obama to rising gasoline prices.

"It is now clear that the Department of Energy has spent the last three years supporting projects that have yet to deliver on innovation, accountability or job creation," Representative Darrell Issa, a California Republican and chairman of the oversight committee, said in a statement.

Solyndra, a Fremont, California-based solar-panel maker, filed for bankruptcy protection in September, two years after winning the loan guarantee.

## Chu To Testify

Energy Secretary Steven Chu, who defended Solyndra's loan in a November appearance before a House Energy and Commerce Committee panel, is expected to testify at the hearing today.

Chu said in his prepared testimony, released yesterday, that the agency put in place "an aggressive monitoring system to ensure that the department and its grantees spend Recovery Act funds wisely and that taxpayers get the value they deserve."

Critics were selectively releasing e-mails to invent a "false and misleading controversy" surrounding the loan-guarantee program, Damien LaVera, a department spokesman, said in an e-mail.

"The department backed loans for two innovative solar projects that will support hundreds of jobs and provide clean power to tens of thousands of homes," LaVera said.

## Antelope Solar

The two projects under scrutiny are Antelope Solar Valley Ranch in California and Agua Caliente in Arizona. [Exelon Corp. \(EXC\)](#), based in Chicago, bought Antelope, and [NRG Energy Inc. \(NRG\)](#) in Princeton, New Jersey, purchased Agua Caliente immediately after First Solar won the awards.

The projects, which will use solar panels produced by First Solar, are different than Solyndra, which won the loan guarantee to build a manufacturing plant. The First Solar loan guarantees are to build a solar field to produce electricity and already have utilities signed on to buy the power.

Projects tied to utilities carry less risk of default than Solyndra, according to an analysis of the loan guarantee by Herbert Allison, a former Treasury Department official. The Obama administration ordered the review amid Republican criticism of the Solyndra award.

"From the outset of the Obama administration's energy loan programs, red flags were raised about the risk to

## **Carbon Copy**

In one e-mail cited by Republicans, which will probably be discussed at the hearing today, Dong Kim, the loan program's technical director, said the Antelope project's use of single axis tracker wasn't innovative. The technology allows the solar panels to track the sun throughout the day.

"The record will show that we did not grade this as innovative during intake review," Kim wrote in the June 23 e-mail.

Jonathan Silver, then the executive director of the loan program, in an e-mail dated Feb. 1, 2011, referred to the projects as alike in design.

"Where are we with antelope valley?" Silver asked energy official David Frantz. "Isn't that a carbon copy of agua caliente?"

"It is," Frantz responded.

An Energy Department rule states a company can only submit one application using a particular technology, Republicans said.

## **'Unprecedented Size'**

Dan Leistikow, an Energy Department spokesman, said on a blog posted on the department's website that Kim, who was responsible for judging a loan applicant's technical merit, found that Antelope as a whole met the innovation standard.

Kim said in an Aug. 4, 2010, e-mail released by the department that the technical team concluded Agua Caliente included "new and innovative components" and that Antelope was sufficiently different to be eligible for a loan guarantee.

The projects were "unprecedented in size and scale," according to Ted Meyer, a spokesman for First Solar, the world's largest maker of thin-film solar panels.

They can provide enough power for 175,000 homes and displace 360,000 metric tons of carbon dioxide each year, the equivalent of taking 70,000 cars off the road, Meyer said in a statement.

Representative Elijah Cummings of Maryland, the senior Democrat on the oversight committee, said the Republican-led investigation hasn't backed up allegations from Issa that the loan program was a "broad scandal."

"The committee has identified no evidence that the department's decisions were the result of political favoritism or corruption," Cummings wrote in letter to Issa yesterday.

## **'Freakish Missive'**

Democrats also noted Republicans have supported the projects now being scrutinized.

Issa's office said he would not comment on the investigation. Cummings said he would not comment on the investigation.

committee's work.

ressive on energy loans speaks volumes about his own deficit

industry lobbyist, said he anticipates more such exchanges  
rd. Congressional investigations may help Republicans say  
lge to change the culture of Washington, McKenna said.

ore time on it for sure, because there is more out there," M  
ashington, said in an interview.

this story: Jim Snyder in Washington at [nsible for this story: Jon Morgan at](mailto:jsnyder24@bloom</a></p></div><div data-bbox=)



Testimony

Before the Committee on Energy and  
Natural Resources, U.S. Senate

For Release on Delivery  
Expected at 9:30 a.m. EDT  
Thursday, June 9, 2011

DEPARTMENT OF  
ENERGY

Advanced Technology  
Vehicle Loan Program  
Needs Enhanced Oversight  
and Performance Measures

Statement of Frank Rusco, Director  
Natural Resources and Environment



G A O

Accountability \* Integrity \* Reliability



# Highlights

Highlights of GAO-11-745T, a testimony before Committee on Energy and Natural Resources, U.S. Senate

## Why GAO Did This Study

In the Energy Independence and Security Act of 2007, Congress mandated higher vehicle fuel economy by model year 2020 and established the Advanced Technology Vehicles Manufacturing (ATVM) loan program in the Department of Energy (DOE). ATVM is to provide up to \$25 billion in loans for more fuel-efficient vehicles and components. Congress also provided \$7.5 billion to pay the required credit subsidy costs—the government's estimated net long-term cost, in present value terms, of the loans.

This testimony is based on GAO's February 2011 report on the ATVM loan program (GAO-11-145). It discusses (1) steps DOE has taken to implement the program, (2) progress in awarding loans, (3) how the program is overseeing the loans, and (4) the extent to which DOE can assess progress toward its goals.

## What GAO Recommends

GAO is making no new recommendations at this time. In the February report, GAO recommended that DOE (1) accelerate efforts to engage engineering expertise and (2) develop sufficient, quantifiable performance measures. DOE disagreed with the recommendations, stating that such expertise had not yet been needed and that performance measures would expand the scope of the program. GAO continues to believe that these recommendations are needed to help ensure that DOE is achieving its goals and is accountable to Congress.

## DEPARTMENT OF ENERGY

### Advanced Technology Vehicle Loan Program Needs Enhanced Oversight and Performance Measures

#### What GAO Found

DOE has taken several steps to implement the ATVM program. First, it set three program goals: increase the fuel economy of U.S. passenger vehicles as a whole, advance U.S. automotive technology, and protect taxpayers' financial interests. DOE also set technical, financial, and environmental eligibility requirements for applicants. In addition, DOE established criteria for judging the technical and financial merits of applicants and projects deemed eligible, and policy factors to consider, such as a project's potential for supporting jobs. DOE established procedures for ATVM staff, aided by experts from within and outside DOE, to score applicants and projects. Finally, the Credit Review Board, composed of senior DOE officials, uses the scores and other information to recommend loan decisions to the Secretary of Energy.

The ATVM program, as of May 2011, had made \$8.4 billion in loans that DOE expects to yield fuel economy improvements in the near term along with greater advances, through newer technologies, in years to come. Although the loans represent about a third of the \$25 billion authorized by law, the program has used 44 percent of the \$7.5 billion allocated to pay credit subsidy costs, which is more than was initially anticipated. These higher credit subsidy costs were, in part, a reflection of the risky financial situation of the automotive industry at the time the loans were made. As a result of the higher credit subsidy costs, the program may be unable to loan the full \$25 billion allowed by statute.

The ATVM program has set procedures for overseeing the financial and technical performance of borrowers and has begun oversight, but at the time of our February report it had not yet engaged engineering expertise needed for technical oversight as called for by its procedures. To oversee financial performance, staff review data submitted by borrowers on their financial health to identify challenges to repaying the loans. Staff also rely on outside auditors to confirm whether funds have been used for allowable expenses. To oversee technical performance, ATVM staff are to analyze information borrowers report on their technical progress and are to use outside engineering expertise to supplement their analysis, as needed. According to our review, projects needing additional technical oversight are under way, and the ATVM staff lack the engineering expertise called for by the program's procedures for adequately overseeing technical aspects of the projects. However, the program had not yet engaged such expertise. As a result, DOE cannot be adequately assured that the projects will be delivered as agreed.

DOE has not developed sufficient performance measures that would enable it to fully assess progress toward achieving its three program goals. For example, DOE has a measure for assessing the fuel economy gains for the vehicles produced under the program, but the measure falls short because it does not account for, among other things, the fuel economy improvements that would have occurred if consumers purchased more fuel-efficient vehicles not covered by the program. Principles of good governance call for performance measures tied to goals as a means of assessing the extent to



senators said the government's loan programs to help utilities, automakers and other companies with green energy efforts should be completely restructured.

Energy Secretary Steven Chu defended the department's handling of the program, saying the government needs to protect taxpayers. "We would like to see private equity invested in these companies," Chu said. He said the government wants to see evidence of private support. "We are very focused on the driving the cost (of electric vehicles) down."

But some senators say the program doesn't make sense. "We need to get out of this business," said Sen. Rand Paul, R-Ky.

The Energy Department has offered no new auto retooling program in a year, and no new major loans in two years. It has taken a much harder line in loan talks, and sharply reduced the amount it has been willing to lend firms. Those decisions have prodded many companies to walk away after years of talks to win loans.

Sen. Ron Wyden, D-Ore., said Congress should take a new look at all of the Energy Department's loan programs.

Republicans have seized on the fact that solar-panel startup Solyndra LLC filed for bankruptcy, putting 1,100 people out of work — a move that could cost taxpayers the \$528 million the government loaned to the California firm.

Since then, the Obama administration has been extremely reluctant to offer new loans.

Sen. Debbie Stabenow, D-Lansing, said in an interview that the "fallout from Solyndra has certainly dampened (the Energy Department's) willingness to make new loans." She said she was "deeply frustrated" that so many companies have been denied loans.

She told Chu that the program has become "bogged down" and is "defeating the purpose" of the program.

The Advanced Technology Vehicle Manufacturing that was created in 2007 and funded by Congress in 2008 with \$7.5 billion to cover taxpayer losses for low-cost government loans; the Energy Department has allocated less than half of the funds to.

A White House appointed auditor, Herb Allison, found in a recent report that

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in 2007, the Energy Department has allocated less than half of the funds. Four loans totaling \$8.4 billion have been awarded to Ford Motor Co., [Nissan](#) Motor Co. and startups Fisker Automotive, Tesla Motors and Vehicle Production Group.

The Energy Department has offered no new auto retooling program in a year, and no new major loans in two years. It has taken a much harder line in loan talks, and sharply reduced the amount it has been willing to lend firms. Those decisions have prodded many companies to walk away after years of talks.

Sen. Lisa Murkowski, R-Alaska, said many companies have expressed deep frustration about not being able to get a loan answer. She called the program "virtually dormant," and said the Energy Department would not get a "passing grade."

Energy Secretary Steven Chu defended the handling of the program, saying the government needs to protect taxpayers.

"We would like to see private equity invested in these companies," Chu said, adding the government wants to see evidence of private support. "We are very focused on driving the cost (of electric [vehicles](#)) down."

But some senators say the program doesn't make sense. "We need to get out of this business," said Sen. Rand Paul, R-Ky.

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Republicans have seized on solar-panel startup Solyndra LLC's bankruptcy filing, putting 1,100 people out of work. The move that could cost taxpayers the \$528 million the government loaned the California firm.

Since then, the Obama administration has been extremely reluctant to offer new loans.

## Senators Upset Over Lack of Energy Department Auto Loans

Wednesday, March 14, 2012 9:26am



At an Energy and Natural Resources Committee hearing, several senators voiced their harsh opinions about the Energy Department's handling on their \$25 billion auto loan program.

Calling the program "virtually dormant," many were unafraid to voice their honest opinions about the Energy Department's recent decisions regarding the allocation (or lack thereof) of their allotted money for auto loans meant to help private companies go "green."

The \$25 billion program was created in 2007 and received government funding under the Advanced Technology Vehicle Manufacturing initiative. The program's goal is to grant loans to private companies to develop more energy efficient vehicles. The [Energy](#)

Department has been given unfettered access to the money and the ability to deem which companies should receive an auto loan.

In the last four years only five loans have been originated. The recipients so far have been Ford, Nissan, Fisker, Tesla, and the Vehicle Production Group, totaling a mere \$8.4 billion in financing.

The dissent and slew of negative remarks at this recent hearing come after the Energy Department denied the energy-efficient company Carbon Motors' application for a green auto loan.

After working with the Energy Department for over 30 months and spending millions to comply to the Department's specifications, the chairman Carbon Motors, William Sartana II, was fuming when his company rejected.

"I'm furious," Sartana II candidly said in a letter following the denial.

Such tight lending standards have led opponents to claim the Energy Department is making politically motivated decisions and withholding the money before the upcoming presidential election, as to not make look the incumbent president look bad if the loans were to be misused.

Sen. Debbie Stabenow, D-Michigan, said the program has become "bogged down," and is "defeating [its] purpose," according to the Huffington Post.

Sen. Lisa Murkowski, R-Alaska, said she has heard of many companies who have grown deeply frustrated over not being able to get an answer on whether or not they've received approval.

Others, such as Sen. Ron Wyden, D-Oregon, believe Congress should take a step back and take a new look at all of the Energy Department's loans programs.

While still others, such as Sen. Rand Paul, R-Kentucky, feel the green auto loan program is a waste, saying, "We need to get out of this business," in a Huffington Post article.

The negative attitudes expressed by the Senators may not be ungrounded either. Particularly after the remarks made by the Energy Department's secretary, Steven Chu, after administering the first few energy-efficient auto loans. "As secretary, I've been committed to getting these loans out the door as quickly as possible," he said, back on June 23, 2009. "Over the next several months, additional loans will be awarded to large and small automobile manufacturers," continued to be a hollow statement that the state representatives have desired to see fulfilled.

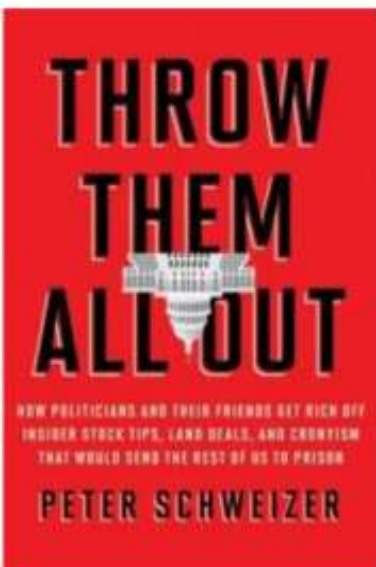


# THROW THEM ALL OUT: Energy Dept. Kickbacks Make Obama America's Biggest Crony Capitalist... Ever

by [Wynton Hall](#)

At least ten members of President Barack Obama's 2008 campaign finance committee, plus more than a dozen of his campaign bundlers, benefited from sweetheart loans through the Department of Energy (DOE) that collectively dwarfed those given to Solyndra and Fisker.

Investigative journalist Peter Schweizer, who is also a Breitbart editor, reveals the full extent of the DOE scandal in his explosive new book, [Throw Them All Out](#). The book is [featured](#) in this week's *Newsweek*, and was [the subject of 60 Minutes](#) this past Sunday, Nov. 13.



Schweizer's research reveals that of the \$20.5 billion in the DOE's 1705 Loan Guarantee Program, \$16.4 billion in taxpayer money—roughly 80% of all loans in the program—went to green enterprises “either run by or heavily owned by Obama financial backers—individuals who were either bundlers, members of Obama's national finance committee or large donors to the Democratic Party.”

In 2009, President Obama had promised that the allocation of all federal stimulus monies would be nonpartisan, ethical, and fair. “Let me repeat that: Decisions about how Recovery money will be spent will be based on the merits. They will not be made as a way of doing favors for

The details of how the DOE loan scheme was apparently conducted are almost as shocking as the billions bagged by Obama's backers.

Instead of appointing a team of scientists or engineers to direct the DOE's loan program office, Schweizer contends, the Obama administration placed some of the president's biggest fundraisers in control. For example, Steve Spinner, who served on the Obama campaign's National Finance Committee and was himself a top bundler, was tapped as the "chief strategic operations officer" for the DOE's loan programs. Spinner was joined at DOE by another Obama fundraiser, Sanjay Wagle, and by Democrat donor Jonathan Silver, who would serve as executive director of the program.

With the scientists and engineers effectively out of the way, and the President's top backers at the levers of the DOE's loan program, the Obama administration was able to funnel billions of taxpayer dollars back to green energy companies associated with the President's political and financial patrons.

For members of Obama's national finance committee, the returns on investing in Obama's 2008 campaign were incredibly lucrative, according to Schweizer. For every dollar committee members raised, they received \$24,783 in return in the form of DOE sweetheart loans, on average.

Other top winners in the Obama campaign donor giveaway included several familiar billionaires. For example, a company indirectly owned in part by Robert F. Kennedy, Jr. and the founders of Google (Sergei Brin and Larry Page) landed a loan almost three times as large as the Solyndra loan, at \$1.4 billion. And Ted Turner and Paul Tudor Jones snagged a jaw-dropping \$4.7 billion loan for their green company, First Solar—a sum almost nine times as big as the [controversial loan given to Fisker Automotive](#).

The Government Accountability Office red-flagged this apparent—and historic—pattern of crony capitalism in its [March 2011 report](#), which found that the DOE's loan and grant programs had doled out federal monies through a process that appeared "arbitrary," lacked proper documentation, and that "had treated applicants inconsistently in the application review process, favoring some applicants and disadvantaging others."

In [Throw Them All Out](#), Schweizer writes that untangling and uncovering every instance of Obama's crony capitalism would "take a large team of investigative reporters." Moreover, according to Schweizer, despite the fact that some successful companies were among the beneficiaries, the DOE loans and grants appear to have failed to create any significant short-term job gains.

"The true short-term effect of this money," Schweizer concludes, "has been to enrich cronies of



## Before the

Committee on Energy and Natural Resources  
United States Senate

June 9, 2011

**Introduction**

Chairman Bingaman, Ranking Member Murkowski, and members of the Committee, thank you for the opportunity to testify today. My name is Jonathan Silver, and I am the Executive Director of the Department of Energy's (DOE) Loan Programs Office (LPO). DOE's loan programs provide critical support for the nation's commercial deployment of clean energy technologies, and the jobs and economic growth that come with them. I welcome the opportunity to discuss the Advanced Technology Vehicles Manufacturing (ATVM) Loan Program with you and to highlight our significant accomplishments.

**Background of the ATVM Loan Program**

As you know, the Loan Programs Office administers three separate programs: the ATVM Loan Program and the Title XVII Section 1703 and Section 1705 loan guarantee programs. The ATVM Loan Program was established by Section 136 of the Energy Independence and Security Act of 2007, and provides direct loans to support the manufacturing of advanced technology vehicles and qualifying components in the United States. As noted by GAO in their most recent report, although the authorizing statute does not specifically identify goals for the Program, ATVM Program staff have established clear goals and performance metrics to measure the program's success. In achieving these goals, the Program helps create next-generation jobs in the automotive and component manufacturing industries.

The Program provides loans to automobile and automobile parts manufacturers for the cost of reequipping, expanding, or establishing manufacturing facilities in the United States to produce advanced technology vehicles or qualified components, and for associated engineering integration costs. In 2010, Section 136 was amended to include ultra-efficient vehicles within the definition of advanced technology vehicles.

The FY 2009 Continuing Resolution (CR), which was enacted on September 30, 2008, appropriated \$7.5 billion in credit subsidy to support up to \$25 billion in loans under the

timeframe mandated by Congress. The program began receiving applications on December 2, 2008.

The ATVM Program has received numerous applications from both automobile original equipment manufacturers (OEMs) and component manufacturers.

### **Value of ATVM Loan Program**

ATVM funding has played a critical role in the development of plug-in hybrid and electric vehicles by providing long-term capital when private financing was not available. It is important to remember that the ATVM Loan Program is not a grant program; loans must be repaid. We review projects on a competitive basis, and we do not fund every eligible project. We ensure that the loans we support meet our statutory requirement of having a reasonable prospect of repayment. Every project that receives financing must first go through a rigorous financial, legal and technical review process – similar to, and in some ways more comprehensive than, what a private sector lender would conduct – before a single dollar of taxpayer money is put to work.

Moreover, the programs can efficiently and effectively leverage government resources to spur private-sector investment. The financing provided by the loan programs is “additive.” It is intended to finance projects that – because they would have difficulty accessing conventional debt markets – might otherwise not get built. A relatively small amount of appropriated credit subsidy can support large amounts of new private sector investment. When a loan is fully repaid, the nation will have benefited from the incentivized private sector investment at relatively little cost to taxpayers.

The potential benefits of the Program are great. In addition to improvements in fuel economy, ATVM Loan Program projects promote economic growth and job creation. They create construction and permanent operating jobs in manufacturing communities where job growth has long been stagnant. In addition, these projects contribute to the build-out of the domestic supply chain and manufacturing base that we will need to “win” the clean energy future.

To date, DOE has issued five ATVM loans totaling \$8.3 billion. These funds will support advanced vehicle projects in nine states and the companies supported estimate these projects will preserve or create almost 38,000 manufacturing or permanent jobs. The Program also provides substantial support to the US automotive supply chain. According to information received from the companies, more than 65 percent of the parts for Fisker’s Karma vehicle are expected to come from US manufacturers, and the VPG facility alone is estimated to support approximately 800 sales, service, parts and supplier

ATVM loans support three of the world's first electric car factories in Delaware, Tennessee and California, as well as the only factory-built light-duty vehicle to date that meets or exceeds accessibility guidelines of the Americans with Disabilities Act. In total, our projects will save approximately 282 million gallons of gasoline annually – roughly the same as removing 545,000 passenger vehicles from the roads.

### **S.1000 and S.1001**

The Administration is continuing to review these bills and does not have a position on them at this time. My comments will be limited to Section 202 of S.1000 and Sections 101 and 102 of S.1001 as they address issues that would fall under the Loan Program Office at the Department of Energy.

S.1000 would expand Title XVII to finance energy efficiency upgrades to existing buildings. The new program would target certain building types, including commercial, industrial, municipal, university, school, and hospital facilities. The President's 2012 budget requests \$100 million for loan guarantee subsidy costs to support up to \$2 billion in loan guarantees for energy efficiency retrofits of universities, schools, and hospitals. However, as noted above the Administration is continuing to review the specifics of this bill.

S.1001 would add two new categories of vehicles to those now eligible for a loan under the ATVM Program. Vehicles currently eligible for ATVM loans include certain light duty and ultra-efficient vehicles. The proposed bill would add medium and heavy-duty trucks, bus and rail vehicles, as well as alternative fuel vehicles. These vehicles would need to satisfy certain loan eligibility requirements set out in the proposed bill, including reducing the consumption of conventional motor fuel. The proposed bill would also expand the scope of components that are eligible for a loan under the ATVM program.

The bill would also amend the Title XVII loan guarantee program to include, as part of the 1703 program's mandate, the reduction of oil imports through alternative fuel projects. It would also make projects that produce and distribute alternative fuel and advanced biofuels eligible for 1703 loan guarantees.

### **Addressing the GAO Findings**

As you are aware, the US Government Accountability Office (GAO) completed its audit of the ATVM Loan Program in February of this year. The stated objectives of the audit were to (1) identify the steps DOE has taken to implement the ATVM loan program, (2) examine the ATVM program's progress in awarding loans, (3) assess how the program is overseeing the loans, and (4) evaluate the extent to which DOE can assess its progress

quantifiable performance measures for its three program goals.

The GAO report noted that DOE had taken numerous steps to successfully implement the ATVM Program. In addition to setting out Program goals for increasing U.S. fuel economy as a whole, advancing U.S. automotive technology, and protecting taxpayers' financial interests, the Program also established rigorous technical, financial, and environmental eligibility requirements for applicants.

The GAO also acknowledged that the Program has successfully set procedures for overseeing the financial and technical performance of borrowers, but asserted that it did not engage engineering expertise in a timely matter for certain projects that need additional technical oversight. First, because of their technical expertise, the Program leverages staff in DOE's Office of Energy Efficiency and Renewable Energy (EERE) to determine whether applicants and proposed projects meet the Program's technical eligibility criteria. EERE performs most of the technical eligibility analysis for the ATVM Loan Program, and uses a model from the Argonne National Laboratory to analyze certain applicant-provided technical data. Second, as we related in our response to the GAO report, the ATVM Loan Program – consistent with its procedures – has regularly engaged both internal and external expertise to help oversee borrowers' compliance with the loans' technical requirements. In addition to experienced engineers on staff, we have – contracted with the country's leading independent engineering firms to ensure that the projects are being delivered as agreed. These large, private sector firms have decades of experience in monitoring and overseeing complex vehicle and technology projects – and thousands of specialized experts.

We also disagree with GAO's recommendations on the appropriate phase to begin close technical scrutiny of certain large projects. GAO suggested, for example, a detailed review of the engineering integration stage, which is typically software-based design, scheduling, and logistics. A formal engineering assessment at this very preliminary stage would increase transaction costs but would not yield insights that would increase effectiveness of the ATVM program.

For every project supported by ATVM loans, DOE utilizes engineering expertise on a regular basis during vehicle assembly and component manufacturing facility construction. Given the wide variation in ATVM projects, however, it is neither possible nor prudent to subject them all to an identical engineering review. The Program tailors the review for each project to deploy engineering expertise when and where it is most needed in order to achieve the highest confidence in the quality of the project and its ability to repay the loan.

Program engineers attend quarterly progress meetings with the borrowers and participate in on-site inspections of assembly plants and construction sites. Financial covenants are specifically crafted to provide timely warnings to DOE prior to a borrower developing financial issues that may impact the project. This level of attention gives DOE the ability to closely monitor both the technical performance and financial health of each borrower for the life of the loan.

The Department also disagrees with GAO's second stated concern, that the Program has not developed sufficiently robust performance metrics. To support this position, GAO expressed concern that external auditors reported instances in which three of the four borrowers did not spend funds as required. The Program has been successful in verifying that loan funds are spent by the borrowers as intended by the ATVM Loan Program. As GAO reported, the ATVM program uses external auditors to oversee borrowers' financial performance. Out of \$3.5 billion in loan disbursements over fifteen months, DOE's auditors have identified less than \$1 million in total funds that were problematic. The largest of the overages, in dollars, represented less than 1/100th of one percent of the relevant loan. Each problem that has been identified was corrected immediately, and procedures were quickly put in place to ensure that the errors did not occur again.

GAO also recommended that the ATVM Loan Program develop quantifiable performance measures for ATVM Program goals. DOE believes that the ATVM Loan Program has established clear performance measures and operated in a manner consistent with its authorizing statute and implementing regulations. DOE believes the analyses suggested by GAO go well beyond the statutory requirement set out under Section 136.

## **Conclusion**

In the past two years, the ATVM loan program has shown great success. We are making a meaningful contribution to our national clean energy goals while creating new and permanent jobs. We will continue to administer all of the DOE loan programs, including the ATVM program, in the most effective and efficient way possible – while appropriately protecting taxpayer funds.

Thank you again for inviting me here today. I look forward to responding to your questions.

# 'win-win' DOE loan

April 2, 2012

5:43pm

8 Comments

by Axel Guttridge Commenting Staff Writer

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In keeping with the recent trend of so-called green companies going into the red, another solar energy company supported by President Obama's top administration officials declared bankruptcy today.

Solar Trust for America received \$2.1 billion in conditional loan guarantees from the Department of Energy -- "the largest amount ever offered to a solar project," according to Energy Secretary Steven Chu -- for a project near Blythe, Calif., but declared bankruptcy within a year. It is unclear how much of the guarantee, if any, was actually awarded.

Senior officials in Obama's administration had very high hopes for the Blythe project. Interior Secretary Ken Salazar attended the groundbreaking ceremony, which he described as "a historic moment in America's new energy frontier" and "another important step in making America's clean energy future a reality." Chu trumpeted at the time that Solar Trust would prove that "when we rev up the great American innovation machine, we can out-compete any other nation."

The embarrassment should be bipartisan. "This is a huge milestone for our community," Rep. Mary Bono Mack, R-Calif., said when the company received its loan guarantee. "I look forward to continuing my work supporting projects . . . that will harness our local energy resources and help reduce our nation's dangerous dependence on unstable foreign oil."

Uwe Schmidt, chairman and CEO of the company, also argued that Solar Trust was good for the nation. He wrote last year that "the DOE loan guarantee is a 'win-win' for government and the companies involved and will not only advance the cause of energy independence but will create hundreds of thousands of jobs across the country."

The bankruptcy makes Schmidt's attempt to rebuke DOE critics in the wake of the Solyndra bankruptcy particularly ironic.

"Despite the posturing and finger pointing, the American solar energy industry is alive and well," Schmidt wrote in an op-ed for the Huffington Post, before discussing his company's business plans. Referring to Solyndra, he lamented that "one company's bankruptcy has cast doubt on the credibility of a government program that is otherwise being administered with incredible efficiency."

The list of bankrupt solar companies has grown since Schmidt scolded Solyndra investigators. How many more might go bankrupt? Secretary Chu won't say.



**United States Department of the Interior**

**FISH AND WILDLIFE SERVICE**

Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825



September 12, 2008

Document Number: 080912021530

Ty Brookhart  
EMPSI  
944 Market St.  
Ste 509  
San Francisco, CA 94102

Subject: Species List for DOE Loan Guarantee Program for Solyndra PV Facility

Dear: Mr. Brookhart

We are sending this official species list in response to your September 12, 2008 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be December 11, 2008.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at [www.fws.gov/sacramento/es/branches.htm](http://www.fws.gov/sacramento/es/branches.htm).

**Endangered Species Division**





**FINAL  
ENVIRONMENTAL  
ASSESSMENT**

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**Environmental Assessment** FOR DEPARTMENT OF ENERGY LOAN  
GUARANTEE TO SOLYNDRA, INC. FOR CONSTRUCTION OF A  
PHOTOVOLTAIC MANUFACTURING FACILITY AND LEASING OF AN  
EXISTING COMMERCIAL FACILITY IN FREMONT, CALIFORNIA

U.S. Department of Energy  
Loan Guarantee Program Office  
Washington, DC 20585

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March 2009



**FINDING OF NO SIGNIFICANT IMPACT**  
**DEPARTMENT OF ENERGY LOAN GUARANTEE TO SOLYNDRA, INC. FOR**  
**CONSTRUCTION OF A PHOTOVOLTAIC MANUFACTURING FACILITY AND**  
**LEASING OF AN EXISTING COMMERCIAL FACILITY IN FREMONT, CA**

**AGENCY:** U.S. Department of Energy, Loan Guarantee Program Office

**ACTION:** Finding of No Significant Impact

**SUMMARY:** The U.S. Department of Energy (DOE) has conducted an environmental assessment (EA) that analyzed the potential environmental impacts associated with (1) the proposed construction and operation of a photovoltaic manufacturing facility and accompanying administrative offices in Fremont, California; and (2) the leasing of an existing commercial facility for assembly and packaging of the photovoltaic panels. The proposed manufacturing facility would be developed on a 30-acre vacant portion of a 42.8-acre parcel at 47422 Kato Road, Fremont, California, and an additional 300,000 square feet would be leased within 25 miles of the proposed manufacturing facility for finishing processes and packaging. DOE, through its Loan Guarantee Program Office (LGPO), proposes to provide a Federal loan guarantee in the amount of \$535 million pursuant to Title XVII of the Energy Policy Act of 2005 (EPAc 2005) to Solyndra, Inc. to support the construction of the proposed manufacturing facility and leasing of the existing facility. The purpose and need for agency action is to comply with DOE's mandate under EPAc 2005 by selecting eligible projects that meet the goals of the Act.

Solyndra has developed a breakthrough, thin-film cylindrical photovoltaic module that substantially reduces the cost of electricity derived from solar sources. Photovoltaic panels generate electricity without producing carbon emissions, except for emissions associated with panel production and installation. By displacing natural gas and other fossil fuels used to produce electricity, photovoltaic installations reduce generation of carbon dioxide (CO<sub>2</sub>) and other greenhouse gasses. Over its estimated 30-year projected life, Solyndra expects the proposed combination of the manufacturing facility and the leased facility to produce photovoltaic panels sufficient to generate 12.6 gigawatts of electricity under peak conditions. Over the life of these panels, they can be expected to generate over 400 trillion kilowatt-hours of emission-free electricity. Assuming that this capacity displaces electricity produced by conventional power plants and combined-heat-and-power plants, Solyndra estimates that the proposed combination of facilities would reduce greenhouse gases and other air pollutants as follows: 245 million metric tons of carbon dioxide; 1 million metric tons of sulfur dioxide; and 380 thousand metric tons of nitrogen oxides.

All discussion and analysis related to the potential impacts of construction and operation of the proposed manufacturing facility and leasing of an existing facility are contained in the Final EA (DOE/EA-1638), which is incorporated by reference. DOE examined potential impacts on the following resources and found none to be significant: land use; visual resources; air quality; noise; geology and seismicity; water resources; biological resources; cultural resources;

socioeconomics and environmental justice; public health and safety, including terrorism-related impacts; and cumulative effects, including global climate change.

In an effort to demonstrate their environmental stewardship, Solyndra incorporated the following elements into the design of the proposed manufacturing facility; however, these elements are not necessary to mitigate any significant impacts from the project: the manufacturing facility is designed to achieve Leadership in Energy and Environmental Design (LEED) Silver certification, would generate a portion of their electricity needs by installing solar panel arrays on the rooftop, and would include water recycling measures to reduce water consumption when the Alameda County Water District completes a planned expansion of its utilities to include separate piping for reclaimed water.

The City of Fremont assumed the role of lead agency for compliance with the California Environmental Quality Act, which requires state and local public agencies to identify the environmental impacts of proposed projects, determine if the impacts will be significant, and identify mitigation measures that will substantially reduce or eliminate those impacts. At a hearing on November 3, 2008, the City of Fremont adopted the Environmental Impact Assessment and Mitigated Negative Declaration (MND) for the project, completing the required review.

In accordance with applicable regulations and policies, DOE sent a notification letter regarding the Department's determination to prepare an EA to the California State Clearinghouse and the City of Fremont on October 2, 2008. The letter described the proposed action and stated that a draft EA would be sent to the state for review. On February 24, 2009, DOE sent the draft EA to the California State Clearinghouse and the City of Fremont and invited their comments on the draft. The draft EA was also posted on the Loan Guarantee Program Office website. DOE received no comments on the draft EA.

**DETERMINATION:** On the basis of the Final EA, DOE has determined that providing a Federal loan guarantee to Solyndra, Inc. to support construction of the proposed photovoltaic manufacturing facility and accompanying administrative offices and leasing of an existing facility in Fremont, California, will not have a significant affect on the human environment. The preparation of an environmental impact statement is therefore not required, and DOE is issuing this Finding of No Significant Impact.

Copies of the Final EA are available at the DOE Loan Guarantee Program Office website at [www.lgprogram.energy.gov](http://www.lgprogram.energy.gov) or from

Sharon Thomas  
NEPA Document Manager  
U.S. Department of Energy  
1000 Independence Ave, SW, CF1.3  
Washington, DC 20585  
[sharon.r.thomas@hq.doe.gov](mailto:sharon.r.thomas@hq.doe.gov)

Additional information on the DOE NEPA process is available from

Office of NEPA Policy and Compliance  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585  
202-586-4600 or 1-800-472-2756

Issued in Washington, DC on the 31 day of March.

  
\_\_\_\_\_  
Steve Isakowitz  
Chief Financial Officer



## Suggestions for Strong Loan Guarantee Applications

August 13, 2009

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DOE's experience with previous loan guarantee solicitation processes has yielded useful lessons. Where possible, we have tried to incorporate these lessons into new solicitations in order to make the application process robust, yet efficient. Stronger applications will enable DOE to process loan guarantee applications more efficiently, significantly reducing the administrative and resource burdens on the applicant as well. To that end, DOE has compiled the following list of features that have historically distinguished particularly strong applications from weaker ones. These attributes are grouped into three categories:

- Key attributes that facilitate the *financial evaluation*
- Key attributes that facilitate the *technical evaluation*
- *Administrative suggestions* to facilitate the overall review process

**Please note that the list below is not exhaustive, nor is every element discussed equally relevant to every application. In addition, although this document discusses individual attributes that may yield a stronger application, the application ultimately will be evaluated on its overall merits, and no single attribute is likely to be dispositive.** Please refer to the relevant [solicitations](#) for all information on complete application requirements and evaluation scoring criteria. This document is intended solely to serve as a guidance tool to help prospective applicants submit the strongest applications possible.

**NOTWITHSTANDING ANYTHING IN THIS DOCUMENT, THERE CAN BE NO ASSURANCE THAT ANY APPLICATION ADHERING TO THE SUGGESTIONS SET FORTH HEREIN WILL BE SELECTED FOR ADDITIONAL DUE DILIGENCE AND NEGOTIATION OR WILL ULTIMATELY BE APPROVED BY DOE FOR A CONDITIONAL COMMITMENT OR A LOAN GUARANTEE. ALL DECISIONS BY DOE ON AN APPLICATION WILL BE BASED ON A COMPETITIVE EVALUATION USING THE PARTICULAR EVALUATION FACTORS SET FORTH IN THE SPECIFIC SOLICITATION. ALL DECISIONS BY DOE ON ANY PARTICULAR APPLICATION ARE FINAL AND NON-APPEALABLE.**

**THE TERMS OF THE APPLICABLE SOLICITATION WILL GOVERN THE EVALUATION PROCESS AND IN THE EVENT OF ANY INCONSISTENCY BETWEEN THIS DOCUMENT AND THE APPLICABLE SOLICITATION, THE SOLICITATION WILL CONTROL.**

### ***Financial Attributes***

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This section includes some of the key characteristics that can strengthen the financial review of project applications.

- **Third-party supply and off-take agreements.** Information on supply and off-take agreements supports revenue and cost projections – having a reliable source of raw

supply or off-take agreements may be compared unfavorably to applications that include such agreements in the financial review. These are helpful determinants of credit quality, even in draft form. The strongest applications will provide the following support:

- Agreements for a term that matches the entire proposed tenor of the loan
  - Agreements with subsidiaries or third parties of strong credit quality
  - Agreements with independent third parties
- **EPC contracts.** Strong EPC (engineering, procurement and construction) contracts provide for liquidated damages and performance guarantees by the contractor, and are concluded with a large, established, creditworthy counterparty. While this may not be feasible in its entirety for every project, applications which lack an EPC contract, do not provide insight into key EPC terms, or which include contracts presenting highly variable costs, may be deemed weaker than comparable applications that include EPC contracts and/or terms.
- **Construction budgets.** Detailed construction budgets strengthen applications, particularly for innovative projects that may face increased risk of cost overruns. Applications that do not provide detail in their construction budgets often fail to specify the total cost of a plant as a single item, or may fail to provide for reserves or contingencies, among other omissions. This can weaken the project's financial assessment.
- **Identification of resources.** The strongest applications fully identify and account for all the resources necessary for their projects to become fully operational, including capital goods, raw materials, O&M requirements and decommissioning. Failure to do this contributes to weakness in financial models and may result in overly optimistic project timelines and financial projections.
- **Permitting and Environmental Review.** Applicants should fully account for fulfilling permitting requirements, particularly NEPA (National Environmental Policy Act), in their project timelines. Acquiring the various local, state, and federal permits that may be needed to implement a project is often a time-consuming process. More guidance on NEPA and environmental requirements is available on the Loan Guarantee Program Office website ([www.lgprogram.energy.gov/NEPA.html](http://www.lgprogram.energy.gov/NEPA.html)). Attachment B in the 2008 and 2009 solicitations also provides more detailed information on environmental requirements (see [www.lgprogram.energy.gov/keydocs.html](http://www.lgprogram.energy.gov/keydocs.html)).
- **Intellectual property.** Strong applications will demonstrate clear rights to the intellectual property necessary to implement the project. This is especially important in the case of innovative projects.
- **Access to IP in a default scenario.** Where proprietary technology is essential to the operation of a project, a willingness to assign those intellectual property rights to the DOE as collateral in the event of default also strengthens the application. The purpose of providing DOE access to the company's IP is to allow DOE to continue operating the project in a default scenario.
- **Sources of equity.** Equity participation is a requirement of all loan guarantee applications, and applicants should clearly substantiate all sources of equity. The strongest applications demonstrate equity that is readily available and provided directly by the project sponsor or a combination of the sponsor and committed, creditworthy joint

- Equity to be raised from unidentified / third parties
- Equity contingent upon yet-to-be-generated revenues from earlier phases of the project
- Equity contingent upon successful raisings of debt

Some projects plan to raise equity following receipt of a conditional commitment for a loan guarantee. This is not preferred by DOE; however it may be acceptable in some cases. Projects that have a substantial equity commitment prior to applying for a loan guarantee likely will rate higher for that criterion in the review process than projects that do not have a substantial equity commitment at the time of application.

- **Project sites.** Stronger applications both identify and demonstrate control over a project site, or document steps taken to establish control. Weaker applications do not identify host sites or are very early in the siting process.
- **Working financial model.** A working financial model is necessary for lenders to evaluate and validate the prospects for profitability of a project. All applications should contain a viable financial model. Key elements of a strong working financial model include:
  - A thorough explanation of the assumptions underlying the model, such as average production, costs and selling prices as appropriate
  - Reserve accounts for future expenses (e.g. major maintenance; decommissioning)
  - A structure that allows reviewers to access the model, test a range of assumptions and understand the process through which the model is expected to achieve its results.
- **Monetization of tax/regulatory incentives.** Tax credits and certificates that cannot be used by applicants should be monetized, or converted into cash. Strong applications demonstrate a clear strategy for the monetization of state and federal tax incentives. Appropriate monetization strategies could include off-take agreements for the sale of Renewable Energy Certificates (RECs), or the confirmed participation of an equity provider with the tax capacity to make use of tax incentives.
- **Market and competition.** Strong applications will provide information on their markets and competition, including data to substantiate any claims made in the application. Useful information for such consideration includes average selling prices, segmentation (to the extent that it exists) and both historical and forward-looking market trends.

## **Technical Attributes**

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This section includes some of the key characteristics that can strengthen the technical review of project applications.

- **Pilot / demonstration plant data.** In general, applicants proposing innovative projects should be able to submit a minimum of 1,000 to 2,000 hours of operating data from a demonstration facility that uses the same technology as proposed in the project application. This is essential to determining the project's capability to support a loan.

from the one proposed in the application.

- **Engineering reports.** All applications submitted by project sponsors or proposed borrowers should include a project-specific engineering report. Reports that discuss the general technology, rather than the use of that technology in the specific context of the project proposed, are of minimal assistance, especially in the evaluation of the technical and financial viability of an application proposing an innovative project.
- **Technological advantages.** Applications required to satisfy Section 1703 of Title XVII should discuss and highlight how the technology as proposed in the project constitutes a new or significant improvement over existing competing technologies in the commercial marketplace today (e.g. cost, greenhouse gas emissions avoidance or reductions, etc.). Weaker applications proposing innovative projects may fail to provide this context.
- **Mitigation of technology risk.** Particularly in the case of innovative projects, strong applications will discuss how to mitigate technology risk. Stronger applications address alternative scenarios in the event that critical technologies fail or do not perform as expected. For example, applicants may address this risk through warranties, production or performance guarantees, corporate guarantees, letters or credit, performance bonds, etc.
- **Key staff.** All applications should provide clarity on the roles of key staff. In addition to staff biographies, stronger applications explain how the experience and skills of key employees uniquely contribute to the success of a project.

### ***Administrative Suggestions***

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This section includes administrative suggestions for application submissions that will enable the loan guarantee program to review applications more efficiently.

Please note: These are suggestions, not requirements, and are not related to application evaluation criteria.

- **Searchable PDFs.** Searchable application PDF files are very helpful to reviewers. Generally, PDF files that are generated from word processing software are inherently searchable, whereas PDF files generated from printed, scanned documents are not.
- **Consolidation.** It is similarly helpful to reviewers if application materials submitted in response to a particular section of the application instructions are consolidated into as few PDF files as possible.



Bright\_Idea\_2

Startup plug-in vehicle maker Bright Automotive announced today that it is closing down.

While General Motors had invested \$5 million in the company, Bright had relied on the hope that the U.S. Department of Energy would grant it low-interest loans under the advanced-technology vehicle manufacturing program.

A letter from its CEO and COO to Energy Secretary Steven Chu notes that the Indiana company has waited more than three years for a DoE verdict on applications it submitted in December 2008.

#### **"Unacceptable to us and our investors"**

"Last week, we received the fourth 'near final' Conditional Commitment Letter since September 2010," Bright CEO Ruben Munger and COO Mike Donoughe wrote in the letter, which withdraws its loan application.

"Each new letter arrived with more onerous terms than the last."

"The first three were workable for us," wrote Munger and Donoughe, "but the last was so outlandish that the most rational and objective persons would likely conclude that your team was negotiating in bad faith."

The two had written a week earlier to Secretary Chu that the DoE's latest terms were "unacceptable to us and our potential investors."

#### **Earliest terms the easiest**

According to a Bright source, over the years the DoE negotiating team would claim that agreement was close, but that "we couldn't get consensus" on the 10-member board that decided on loan applications.

So each new draft contained additional and more onerous requirements.

The DoE first required increasingly detailed

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# Steven Chu must go – Energy Dept. Disaster

March 19, 2012 | Filed under Corruption | Posted by SUAAdmin

**Editor's Note** – SUA has been watching the Secretary of Energy, Steven Chu and his abysmal testimony before Congress, the scandals he allowed like Solyndra, gasoline prices (which he flip-flopped on), Chevy Volts, and the disastrous "green agenda" of the Obama Administration for the past three plus years and it is now clear, Steven Chu must go. Just like our call for Eric Holder's resignation, Chu is inept, a pawn for 'crony capitalism', and a disaster to our economy and energy independence.



## GOP Says Energy Dept. Cut Corners to Lend Az. Solar Firm \$1.6 Billion

By [MATTHEW MOSK](#)  
ABC News

House Republicans are preparing to grill Energy Secretary Steven Chu this week over \$1.6 billion in loans to finance two massive solar energy projects planned for the desert Southwest, saying investigators have found evidence suggesting the administration cut corners in order to get the loans approved.

The Department of Energy manipulated analysis, ignored objections from career



Steven Chu - Energy Secretary and Obama

professionals, and strategically modified loan evaluations in order to force project funding out the door," House Oversight and Government Reform Committee Chairman Darrell Issa, R-California, said in a statement provided to ABC News.

President Obama is no fan of Mitt Romney-style "vulture" capitalism. So what's his alternative?

All these Republicans grouching about the president's attacks on private equity might instead be seizing on this beautiful point of contrast. Mr. Obama, after all, is no mere mortal president. Even as he's been busy with the day job, he's found time to moonlight as CEO-in-Chief of half the nation's industry. Detroit, the energy sector, health care—he's all over these guys like a cheap spreadsheet.

Like Mr. Romney, Mr. Obama has presided over bankruptcies, layoffs, lost pensions, run-ups in debt. Yet unlike Mr. Romney, Mr. Obama's C-suite required billions in taxpayer dollars and subsidies, as well as mandates, regulations, union payoffs and moral hazard. Don't like "vulture" capitalism? Check out the form the president's had on offer these past three years: "crony" capitalism.

The case study is the solar-panel maker Solyndra, which was part of a green-energy sector that even by 2009 was failing. The president took one look at the industry's utter lack of both profits and sellable products, and yelled "that's my baby!" The stimulus bill shipped tens of billions of dollars to the Energy Department to pour into green companies via grants and loans. It promised five million jobs.

The Energy Department's nuclear physicists were admittedly a bit flummoxed by the whole P&L thing, but they got their venture-capitalism groove on and in 2009 handed Solyndra a \$535 million loan guarantee. Even prior to disbursement, government accountants were warning that Solyndra was a lemon, but the White House didn't worry. After all, the IRS had only recently and conveniently tripled the tax credit (to 30%) for buyers of Solyndra products, which the government figured would help grease their start-up's skids.



Unfortunately, the physicist-CFOs overlooked that whole "global energy market" factor—easy mistake! Foreign competitors were already piling into Solyndra's niche. Unable to compete, the firm went bankrupt last year. And, oh, the

out of the bankrupt firm, even as employees were left to . . . On, wait. He said no such thing. He was probably too busy doing damage control on his other government-subsidized energy bankruptcies, from Beacon to Ener1. Or running down the latest report of a government-funded, instantaneously combusting electric car. (Karma, anyone? Now at the low, low price of \$103,000. Fire extinguisher included.)

Speaking of cars, Detroit is the business venture Mr. Obama's team has been most flogging as a success. True, General Motors and Chrysler are still turning their lights on, though they'd have arguably been doing the same had they been left to go through normal, orderly bankruptcies like those that helped the steel and airline industries restructure to become more competitive.

To get to the same place, Mr. Obama's crony capitalism handed \$82 billion in taxpayer dollars to the two firms. That bailout money went to make sure the unions that helped drive GM to bankruptcy (and helped elect Mr. Obama) did not have to give up pay or pension benefits for current workers. They were instead rewarded with a share of the new firm. The UAW at GM meanwhile used the government-run bankruptcy to bar some 2,500 nonunion workers who had been laid off from transferring to other plants. How truly vulture-like.

Contract law was shredded, as unions were given preference over other creditors, such as pension funds for retired teachers and police officers. Congressmen used political sway to keep open their weak auto dealerships, forcing layoffs at stronger ones (vulture . . . vulture . . . vulture). Political masters obliged the industry to pour resources into unpopular green cars. The political masters were obliged to offer \$10,000 tax credits to convince Americans to buy them. (They still won't.) And the message to every big industry? Go ahead, run your business into the ground. The Capitalist-in-Chief has your back (especially if you are unionized).

So, take your pick. Mr. Obama's knock on free enterprise is that it is driven by "profit," and that this experience makes Mr. Romney too heartless to be president. The alternative is an Obama capitalism that is driven by political favoritism, government subsidies, mandates, and billions in taxpayer underwriting—and that really is a path to bankruptcies and layoffs. If the president wants to put all 3,545 green stimulus jobs he's created up against Bain's record, he should feel free.

Mr. Romney could make the comparison himself. Ronald Reagan ran against Jimmy Carter's own industrial policy, and to great success. Viewed in isolation, "vulture" capitalism has some PR downsides. Viewed against the alternative, it's a flat-out winner.



WASHINGTON, DC - NOVEMBER 17: Energy Secretary Steven Chu is sworn in while testifying before the Energy and Commerce Committee's Oversight and Investigations Subcommittee hearing about the recent support for the failed solar panel company Solyndra on Capitol Hill November 17, 2011 in Washington, DC. Chu said 'the final decisions on Solyndra were mine.' (Photo by Chip Somodevilla/Getty Images)

Following a subpoena threat, the White House agreed Thursday evening to allow administration officials to testify before a House committee investigating the [Solyndra](#) loan guarantee.

The energy oversight subcommittee was scheduled to meet Friday morning to consider a resolution to issue subpoenas to White House officials involved in managing the Solyndra loan guarantee.

**[ED: Full coverage of the Solyndra scandal](#)**

The White House and committee Republicans struck an agreement Thursday evening where five administration officials would testify. The Department of Energy lost over half a billion dollars in taxpayer money when Solyndra went bankrupt last year.

The case turned into a political scandal for the administration when [internal documents](#) revealed that top Solyndra investors were donors to President Obama and that the loan guarantee was fast-tracked to meet a congressional deadline, despite concerns about the viability of the solar power company.

"I'm pleased that we will finally have a chance to talk to those administration officials who actually did the heavy work on the Solyndra loan guarantee," Republican Reps. Fred Upton and Cliff Stearns said in a statement. "Speaking to these key players is critical to learning the lessons of Solyndra as we work to ensure we are never again paying the price for the administration's risky bets."

Administration officials scheduled to testify are the OMB's energy branch chief Kevin Carroll, budget director Colyar, program examiner Fouad Saad, deputy assistant to Vice President Joe Biden and senior advisor then-White House Chief of Staff Rahm Emanuel Aditya Kumar and deputy assistant to the President for energy and climate change Heather Zichal.

[Read more on Twitter](#)

by: Jonathan Buono

## Wastewatcher

In an effort to alleviate the burden of rising gasoline prices on the economy and reduce vehicle emissions, Congress [passed](#) the Energy Independence and Security Act (EISA) in 2007. The legislation ramped up fuel economy standards and encouraged the use of renewable fuels.

Included in the EISA is the authorization for the Advanced Technology Vehicles Manufacturing (ATVM) loan program, designed to assist automobile manufacturers with capital investments on facilities that would create vehicles with increased fuel efficiency. ATVM was authorized to give out \$25 billion in loans, but was not initially given the funding to do so, nor was it given a timeline. It was an unfunded, open-ended loan program for the federal government to pick winners from the advanced fuel efficiency auto manufacturers.

In 2008, Congress appropriated \$7.5 billion to the Department of Energy (DOE) for the ATVM program. This appropriation, however, was only sufficient to cover the subsidy costs of providing \$25 billion in low-interest loans. In the four years since the creation of ATVM, only four companies have received loans, which total \$9.1 billion. A majority of that amount, \$5.9 billion, went to the Ford Motor Company. The result of that taxpayer "investment" has been the [sale](#) of approximately 21,000 Ford hybrid vehicles in 2011, or 1 percent of the company's sales.

GM and Chrysler applied for \$14.4 billion and \$7 billion in ATVM loans, respectively. However, both companies withdrew their applications, [citing](#) overbearing restrictions and a [desire](#) to operate with minimal debt.

The stated goal of the ATVM program is to improve the fuel efficiency of the overall American auto fleet. However, it is hard to justify this federal investment, as vehicles being subsidized are far beyond the means of average taxpayers. Tesla Motors, a California-based startup company, received \$465 million. Although the company has two more models [expected](#) to debut in the next two years, currently the only model offered for sale is the Tesla Roadster. Owners of the roughly 2,000 worldwide Roadsters on the road today shelled out six figures for the flashy electric sports car. The electric batteries alone cost \$40,000.

Fisker Automotive, the recipient of \$529 million in ATVM loans, also has just a single six-figure model for sale, the Karma. The hybrid luxury vehicle is only beginning to roll out now, and sales are not expected to reach Fisker's goal of 3,000 in 2012.

While the federal government should not be in the business of providing low-interest loans to automotive manufacturers, it is even worse that the loans are subsidizing high-end models in limited production that few can afford. Fuel efficiency goals will never be met through the ATVM under these circumstances.

A stipulation in the DOE's criteria for ATVM loans requires the manufacturing of the proposed vehicles or parts to occur in the United States. Taxpayers should be incensed to know that the Fisker Karma is being built in Finland. In addition, the requirement has not prohibited the DOE from granting loans to Nissan (\$1.4 billion, Japan) and Severstal (\$730 million, Russia). The manufacturing jobs may go to plants in the United States, but the bottom line profit will go to corporate headquarters. The U.S. government should not be subsidizing capital investments for foreign corporations, especially in a globally competitive economy.

The fiscal health of the ATVM loans may not be as poor as other DOE lending programs, such as the \$535

## ADDENDUM TO CONDITIONAL COMMITMENT LETTER

This Addendum (the "Addendum") is entered into as of the 3<sup>rd</sup> day of November, 2009, among the U.S. Department of Energy ("DOE"), Tenneco Automotive Operating Company Inc. (the "Applicant") and Tenneco Inc. (the "Parent" and, together with DOE and the Applicant, the "Parties").


The Parties previously executed the Conditional Commitment Letter, dated as of October 27, 2009 (the "Conditional Commitment Letter"), relating to loans to be made to the Applicant under DOE's Advanced Technology Vehicles Manufacturing Incentive Program. However, when the Parties executed the Conditional Commitment Letter they were acting under a mutual mistake of fact that is material to, enters into and forms the basis of and is the essence of the agreement among the Parties. Therefore, the Conditional Commitment Letter, as executed, did not represent the intent of the Parties with respect to the "Maximum Facility Amount" and the "Project Maximum Loan Amount;" however, all other aspects of the agreement were representative of the Parties' understanding. The Parties now desire to reform the terms of the Conditional Commitment Letter to correctly reflect the Parties' intent at the time they entered into the Conditional Commitment Letter and the correct facts, by executing this Addendum.

Accordingly, the Parties hereby agree that each time the Conditional Commitment Letter refers to the amount "\$24,115,000.00 (TWENTY-FOUR MILLION ONE HUNDRED FIFTEEN THOUSAND U.S. DOLLARS)" (either as the "Maximum Facility Amount" or in the definition of "Project Maximum Loan Amount"), there should be substituted the amount "\$24,114,000.00 (TWENTY-FOUR MILLION ONE HUNDRED FOURTEEN THOUSAND U.S. DOLLARS)," which was the amount the Conditional Commitment Letter would have specified had it correctly reflected the intent of the Parties at the time they executed the Conditional Commitment Letter and had the Parties been in possession of the correct facts at that time. The Parties further agree that this reformation of the Conditional Commitment Letter shall be considered for all purposes to be effective as of the date on which the Conditional Commitment Letter was originally executed.


### U.S. DEPARTMENT OF ENERGY

By:   
Eochlan Seward, Director Advanced  
Technology Vehicles Manufacturing  
Loan Program

### TENNECO AUTOMOTIVE OPERATING COMPANY INC.

By:   
Name: John E. Kunz  
Title: Vice President - Treasurer and Tax

### TENNECO INC.

By:   
Name: John E. Kunz  
Title: Vice President - Treasurer and Tax

# Tesla Battery Failures Make 'Bricking' a Buzzword

Sunday, March 04, 2012

By BRADLEY BERMAN, The New York Times

AN uproar recently ignited on automotive blogs over a post about a Tesla Roadster whose battery needed replacement after its owner parked the car, low on charge and unplugged, for more than two months. The battery, which had fully discharged, could not be revived.

While controversy has swirled around the incident -- with bloggers arguing about an owner's responsibility to keep the battery charged and the motivation in making the details public -- Tesla has confirmed basic facts about the situation.

The incident made a buzzword of "bricking," a term from the high-tech industry typically used to describe electronic devices rendered useless by corrupted software. In this case, it was the 1,000-pound lithium-ion battery pack of an electric Roadster -- a car that sold for about \$110,000 but whose production has now ended -- that became, effectively, a brick.

At a conference for electric vehicles last month in San Diego, Tesla's chief technical officer, J. B. Straubel, told reporters that all batteries could be subject to this total failure mode, but fewer than 10 Roadsters might be "susceptible" to the problem. He added: "If you ran your conventional engine without oil, whose fault would it be? It would be the owner's."

Since then, technical experts and electric-car enthusiasts have debated whether it is possible for an electric car's battery pack to become irreversibly depleted, and under what circumstances. Coming just weeks after fires in Chevrolet Volt lithium-ion packs resulting from federal crash tests under laboratory conditions, the failures gave fodder to critics who have questioned the viability of battery-powered cars. Here are answers to some questions raised by the Tesla battery situation:

**Q. How exactly did this all begin?**

**A.** A description of a Tesla Roadster in California whose battery suffered a total failure was posted on theunderstatement.com. The crux of the matter was Tesla's denial of warranty coverage because the owner had not plugged in the car while it was parked, as specified in the owner's manual and other materials. A replacement battery from Tesla's Los Angeles service center was offered at "around \$40,000," according to a letter to the owner from Tesla's vice president for service, J. Joost de Vries.

**Q. How many Tesla Roadsters have experienced this failure?**

**A.** According to J.B. Straubel, Tesla's chief technical officer, "less than 10" cars are "susceptible" to bricking. Several incidents of total battery failure that left cars completely incapacitated have been alleged in online reports by owners. A Tesla spokeswoman, Khobi Brooklyn, said she could not confirm the number of battery failures.

**Q. Why would an electric car's batteries run down if the car was not being driven?**

**A.** All modern vehicles, not just electric cars, have systems that draw power even when the car is shut off and parked. Clocks, anti-theft alarms and audio systems are just a few of the devices that may be powered at all times by a conventional car's battery.

Cars with electric powertrains, including plug-in hybrids, typically have battery-management systems that are always active. These babysitters monitor and regulate the battery's temperature and charge level. The auto engineer's challenge is to minimize these drains on the battery -- called parasitic losses -- while keeping all systems running.

**Q. Under what conditions would an electric vehicle battery become drained beyond saving?**

**A.** An electric car's battery will fail totally only under extreme circumstances, according to Tesla. This occurs if the battery has been discharged "for an extended amount of time." Chemical changes that take place will make recharging impossible.

The electronic vehicle log from the Roadster with the failed battery recorded a span of 36 days from when the state of charge reached zero percent until Tesla said a complete replacement was needed.

**Q. Why couldn't the Tesla Roadster batteries be recovered?**

# Tesla opens its Model S electric car factory

by [Wayne Cunningham](#)

[Share](#)

1



Tesla unveiled its sign over the old NUMMI plant, where it will build the Model S electric car. (Credit: James Martin/CNET)

On Wednesday, Tesla CEO Elon Musk and California Senator Diane Feinstein stood before the New United Motor Manufacturing Inc. (NUMMI) plant, shuttered since April, and announced its new beginning as the base for Tesla Model S production. The press conference was capped by the unveiling of a large Tesla sign over the plant.

Tesla Vice President for Manufacturing Gilbert Passin conducted a tour through the parts of the factory that will host production lines for the Model S. Passin boasted that acquiring NUMMI was a huge cost savings for Tesla, as building a new plant would cost hundreds of



They said you will not start! (Smile) And we've said plenty of unimpeachable things along the way (smile), but something for the first time ago had to be today, more than that. It did 10 years ago. It was, he said, while we were sitting in some hotel suite in some city. It's just as tough and exclusive to make one car as it is to make a million. The only in an old story. The rest of R&D, manufacturing, testing, marketing, advertising and ultimately the final test track are what they, and not always a step the total of what you are making cars. And only people who know what they are doing should get involved in such an undertaking. And an "understanding" in that, quite unfortunately, but not unexpectedly, spread out to be the California car up EV venture Tesla/Elon. (Photo: © Tesla/Twitter/Tesla.US, courtesy)



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When we see the car, very "exotic" which featured Tesla of the recent Los Angeles Auto Show, it was obvious that either the company was "to become" 20 and marketing people, or, more (and true, as we found) the company itself was going through some tough decisions. (Photo: © Tesla/Twitter/Tesla.US, courtesy)



...and we've seen some "exotic" car companies "come and go, or have plenty of "car-by-the" who eventually built together one version of the car to make, or "to be" trying to make money for, and they support it with a great deal of money that he or she has more than one car already built.

Tesla has in the world's eyes by its own and a couple of American and the other countries like and the old technology. Tesla, heavy as well as its power but has an incredible experience (the same as all in the house on the top of them has done ... but mostly making, we hope, as a company what might be able to give us old car on the ground).

However as the blog, we've detailed the close connection between Tesla, the Bush administration and Republican heavyweight. It is possible that, as many say General Motors did with "EV", Tesla was regarded to be the "great" since that's the true battery-powered electric vehicle is remarkable great value technology! That all failed to be combined for regular old Tesla the most "exotic" (Photo: © Tesla/Twitter/Tesla.US, courtesy)



... We're all entitled to an opinion! And time is wasted ... the Supreme Court hasn't changed that yet, have they?, he is the co-founder of Tesla, Richard (Richard), and other "Tesla Founders", have a thing or two to say about Tesla on Wall Street. Even though going to that Wall Street has its downside from Richard about some specific issues of it. The Musk said he has been taken down at the strong opinion of Tesla's management. By taking it down, it is in no way admitting that anything I wrote was in violation of any agreement I signed with Tesla Motors, and I just didn't like the way it was done. But it was explained to me that Tesla and its financial backers will not spend as much as I can on a lawsuit ... most of the comments on the blog going here also has taken down, sorry for the "inconsistency", we at Tesla may have found the original posting by Richard and others (Tesla said) to be the numbers of those filed by Tesla are between 1k and 40, depending on the source, and often in fact and possibly Washington, DC, have been changed. With all that, here's what our team at the "Tesla Founders" have to say:

... We're all entitled to an opinion! And time is wasted ... the Supreme Court hasn't changed that yet, have they?, he is the co-founder of Tesla, Richard (Richard), and other "Tesla Founders", have a thing or two to say about Tesla on Wall Street. Even though going to that Wall Street has its downside from Richard about some specific issues of it. The Musk said he has been taken down at the strong opinion of Tesla's management. By taking it down, it is in no way admitting that anything I wrote was in violation of any agreement I signed with Tesla Motors, and I just didn't like the way it was done. But it was explained to me that Tesla and its financial backers will not spend as much as I can on a lawsuit ... most of the comments on the blog going here also has taken down, sorry for the "inconsistency", we at Tesla may have found the original posting by Richard and others (Tesla said) to be the numbers of those filed by Tesla are between 1k and 40, depending on the source, and often in fact and possibly Washington, DC, have been changed. With all that, here's what our team at the "Tesla Founders" have to say:

"We may have found the car to be better looking way of Tesla's great product and that the financial backers and the media would not be as good as the rest of the good, but not best one of that world's market to be a good thing."

"The company has changed its management. It started its own car and it did so, it's the right thing to do, and the financial backers that might still be looking."

It seems to Tesla with a great deal of attention to work for a company with a million dollars that had a real chance to make a difference in the world. The way of creation and hope generated from the energy and determination to overcome the many challenges of creating a great EV. The way that has been chosen for the world, to make something that has been going on since. The way that has been chosen, not just management and technology, but the way that has been chosen to make, to thought the best way to the world and long term impact of the future of Tesla. The way that has been chosen, not just management and technology, but the way that has been chosen to make, to thought the best way to the world and long term impact of the future of Tesla. The way that has been chosen, not just management and technology, but the way that has been chosen to make, to thought the best way to the world and long term impact of the future of Tesla. (Photo: © Tesla/Twitter/Tesla.US, courtesy)



# Response to the CARB ZEV Expert Panel Position on Lithium-Ion Full-Performance Battery Electric Vehicles

Andrew Simpson PhD  
Tesla Motors Inc.  
San Carlos, California  
23<sup>rd</sup> March 2008

## Overview

This document provides a rebuttal to the CARB ZEV Expert Panel's position on the market potential for lithium-ion full-performance battery electric vehicles (Li-Ion FPBEVs).

The Expert Panel assessed the mass-market potential of Li-Ion FPBEVs based on the current status of the technology, as well as automotive OEMs' and battery suppliers' research, development, demonstration and marketing efforts. They concluded that Li-Ion batteries had good potential to meet all performance requirements of small, midsize and large FPBEVs as well as meeting cycle life goals. However, they argued that Li-Ion FPBEVs were still handicapped by their high battery costs and low customer acceptance due to limited range and long recharge time. They also suggested that no large-scale OEMs or battery developers were pursuing commercial FPBEV technology. The Panel therefore concluded that market development for Li-Ion FPBEVs had stalled and that, despite impressive technical advancement, the mass market potential of Li-Ion FPBEVs was still inherently limited. In short, they judged that Li-Ion FPBEVs were not a legitimate ZEV candidate technology for mass market penetration.

However, the Panel failed to acknowledge the healthy growth in niche FPBEV markets that can tolerate the cost, range and charging time of Li-Ion FPBEVs. This is exemplified by products from Tesla Motors and other emerging OEMs such as TH!NK. In combination, these niche markets provide a significant volume and pathway to mass market readiness, as well as propelling high-energy Li-Ion batteries much further along the R&D trajectory.

Furthermore, the expert Panel did not subject competing ZEV technologies (i.e. fuel cells) to the same stringent criteria for mass-market viability as they did FPBEVs, thereby injecting a significant technology bias in the comparison and results. Li-Ion FPBEVs are arguably much closer to mass-market readiness than other ZEV technologies when compared from a technology-neutral standpoint.

Overall, Tesla Motors feels that the Expert Panel failed to acknowledge the near-term market potential for Li-Ion FPBEVs and the tremendous progress of emerging OEMs in bringing these vehicles to market. Tesla Motors believes that Li-Ion FPBEVs deserve more recognition as a legitimate ZEV technology with rapidly-growing mass-market potential.

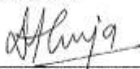
## Commentary on Specific Aspects of the Expert Panel Report related to Li-Ion FPBEVs

The Expert Panel Report contains several specific observations regarding the viability of Li-Ion FPBEVs. Tesla Motors has provided a targeted response for each item, citing relevant data from its technology and business plans as well as public information from its competitors.

IN WITNESS WHEREOF, Applicant has executed this Information Certificate as of June 23, 2009.

**TESLA MOTORS, INC.**

By: \_\_\_\_\_




Name: DEEPAK AHUJA

Title: CHIEF FINANCIAL OFFICER

ACCEPTED AND AGREED TO  
as of the date of this Conditional Commitment Letter:

TESLA MOTORS, INC.

By:   
Name: ELON MUSK  
Title: CEO

Very truly yours,

**U.S. DEPARTMENT OF ENERGY**

By:

  
\_\_\_\_\_  
Dr. Steven Chu, Secretary of Energy

[Signature Page to Conditional Commitment Letter]





Comment:

Corporate Validation

Point of Contact: DIANE MUIR OGDEN Date: 8/26/10

Title: J.P. BUSINESS DEVELOPMENT

Signature: 

**Determination:**

Based on my review of information conveyed to me and in my possession concerning the proposed action, as NEPA Compliance Officer (as prescribed by DOE Order 451.1B), I have determined that the proposed loan action fits within the specified class of actions, the other regulatory requirements set forth above are met, and the proposed loan action is hereby categorically excluded from further NEPA review.

  
Signature

Matthew McMillon  
NEPA Compliance Officer  
Loan Programs Office

8-31-2010  
Date



Gene Berdichevsky, Kurt Kelty, JB Straubel and Erik Toomre

**Summary:**

This paper provides details about the design of the Tesla Roadster's lithium-ion (Li-ion) battery pack (otherwise known as the ESS, or Energy Storage System) with a particular focus on the multiple safety systems, both passive and active, that are incorporated into the pack. This battery pack has been under development and refinement for over three years and is the cornerstone of the Tesla Roadster. The high level of redundancy and multiple layers of protection in the Tesla Roadster battery pack have culminated in the safest large Li-ion battery that we or many of the experts in the field, with whom we've consulted, have seen.

**Background:**

The battery pack of the Tesla Roadster electric vehicle is one of the largest and technically most advanced lithium-ion battery packs in the world. It is capable of delivering enough power to accelerate the Tesla Roadster from zero to sixty miles per hour in approximately four seconds. Meanwhile, the battery stores enough energy for the vehicle to travel 250 miles on the EPA highway cycle (i.e. 400 kilometers) without recharging, something no production electric vehicle in history can claim.

Designed to use commodity, 18650 form-factor, lithium-ion cells, the Tesla Roadster battery draws on the progress made in lithium-ion batteries over the past fifteen years. Under the market pull of consumer electronics products, energy and power densities have increased while cost has dropped making lithium-ion *the* choice for an electric vehicle. In the past, to achieve such tremendous range for an electric vehicle it would need to carry more than a thousand kilograms of nickel metal hydride batteries. Physically large and heavy, such a car could never achieve the acceleration and handling performance that the Tesla Roadster has achieved.

Due to their high energy density, lithium-ion batteries have become the technology of choice for laptops, cell phones and many other portable applications. Precisely because they have all this energy stored in a small space, Li-ion batteries can be dangerous if not handled properly. In fact, there have been several cases of Li-ion batteries going into thermal runaway in laptop applications leading to recalls by Dell, Apple, IBM and other manufacturers. However even with this high energy density, the lithium-ion batteries in the Tesla Roadster only store the energy equivalent of about eight liters of gasoline; a very small amount of energy for a typical vehicle. The pack operates at a nominal 375 volts, stores about 50kwh of electric energy and delivers up to 200 kilowatts of electric



## Why Is the Government Subsidizing a \$104,000 Car?

By **WILLIAM TUCKER** on 2.14.12 @ 6:08AM

Is Fisker Automotive the next Solyndra? Maybe, but that misses the larger point.

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Fisker Automotive suspended efforts in Delaware last week to retool an abandoned GM production plant into a manufacturing facility for its new electric hybrid NINA, derived from the \$104,000 luxury Karma.

Fisker's problem is that it is the recipient of a \$529 million loan from the Department of Energy. Having already pocketed \$193 million to help push the \$104,000 Karma onto the market, Fisker is now "failing to meet DOE benchmarks" in converting the Wilmington, Delaware factory into an assembly line for the \$40,000 NINA. In the kind of accounting the government likes in order to show it isn't just throwing away money, DOE wanted some proof of performance. Fisker is already far behind schedule, and so it had to lay off 26 of the 100 construction workers on site and tell subcontractors to hold the phone. Negotiations on whether DOE will come through with the second \$336 million installment are now expected to take months.

Like many ambitious auto executives before him -- John DeLorean comes to mind -- Fisker's real dream was to build his own car. So in 2004 he left Ford to found Fisker Coachbuild, a boutique designer of one-of-a-kind luxury cars. He also produced the initial design for the Tesla Model S, the scaled-down version of the \$109,000 Tesla Roadster that is supposed to reach auto showrooms this year. In 2008, Fisker unveiled his own luxury hybrid, the Karma, designed to compete with the Roadster at \$104,000. Although still headquartered in southern California, Fisker elected to build the Karma in Finland at a plant that once produced the Porsche Boxster and Cayman. Fisker promised to deliver the first Karmas by 2009. He claimed to have 1,300 orders already.

Like all electrics, the Karma would have some severe limitations. Without its gasoline engine, its range is limited to 35 miles -- meaning it only goes 35 miles before requiring another charge, which can take several hours. Fortunately, it is also fitted with a 2-liter, turbocharged Ecotec engine that extends its range to 230 miles and its top speed to 125 mph. The EPA rated the Karma's mileage at only 20 miles per gallon for its gasoline engine, but 52 mpg for full hybrid mode. The company offered rooftop solar panels that extend the range another four miles. *Time* named the car to its "Green Design 100" list in 2009, before it had even been produced.

Fisker Automotive received initial funding of \$500 million from Kleiner Perkins, Silicon Valley's premier venture capital firm, which had started to follow board member Al Gore's advice in moving away from computers and into "green" investments. In the old days, such venture funding primed a company for its initial public offering, when the early backers would recoup their investment. Since the Gore era began, however, the target for

green machine would "only cost \$40,000!" As the Fisker press release described it:

Production is scheduled to begin in late 2012. Fisker Automotive anticipates Project NINA will ultimately create or support 2,000 factory jobs and more than 3,000 vendor and supplier jobs by 2014, as production ramps up to full capacity of 75,000-100,000 vehicles per year. More than half will be exported, the largest percentage of any domestic manufacturer.... Fisker plug-in hybrid cars will help remove the country's dependence on foreign energy by eliminating the need for 42 million barrels of oil by 2016. They will also offset 8 million tons of carbon dioxide emissions.

Meanwhile, back in Finland, Fisker was having a little trouble meeting its Karma production schedules. Although promised for 2009, the first models did not roll off the assembly line until July 2011. Instead of the 1,300 supposedly already under wraps, the first delivery to the United States consisted of 239 cars. Six months later, when a leak in the cooling system that might cause battery fires prompted a recall, an inventory discovered fewer than 50 cars sold. The rest were still sitting on the lots. To compensate for poor sales, Fisker upped the price to \$116,000.

Not that the green establishment hadn't given the Karma its four-star treatment. As *Fortune* reported, the Karma "has been celebrated by environmentalists, blessed by the federal government with a guaranteed loan, and endorsed by celebrities. Leo DiCaprio ignited a swirl of publicity when he took delivery of the first production model.... The seating foam is made from soy-based bio fiber, the carpet backing composed of recycled post-consumer materials, and the trim sourced from 'fallen, sunken and rescued wood,' including some that has spent the last

manufactured in Finland? Supposedly the answer is to promote its little brother the NINA. But the NINA is barely distinguishable from the Chevy Volt, which also costs \$40,000, has had its own battery fires, and is selling so poorly that dealers are refusing further shipments. Autodata Corp. recorded seven months' worth of unsold inventory in January. The unheralded Chevy Cruze, on the other hand, had a poor month in November when it only sold 13,000 cars. The Nissan Leaf is hardly bettering the Volt, selling only 676 in January and 10,000 all last year. The Tesla Roadster -- which received its own \$465 million loan from DOE -- seems to have cornered the market for \$100,000 hybrids, selling 2,500 in 2011, although the company is still losing money. But 100,000 NINAs by 2014? Where else but in the federal government would you find anyone willing to accept such projections?

The Karma is not just an investment. It is another milestone in the Obama administration's effort to build an entirely separate economy, where coal is forever banished, cars no longer emit exhaust, and there is a windmill in everyone's backyard -- all subsidized by the federal government. In that sense, the \$193 million thrown at the Karma isn't really a loss at all. It's just another step in watering the shoots of the Green Economy -- this time sprouting in Joe Biden's back yard.



#### ABOUT THE AUTHOR

**William Tucker** is the author of *Terrestrial Energy: How Nuclear Power Will Lead the Green Revolution and End America's Energy Odyssey*.

# ed firms award bonuses, file bankruptcy

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Matthew Mosk, iWatch News

rtment of Energy financed a fleet of green energy companies that later fell into  
out six-figure bonuses and payouts to top executives, a Center for Public Int

m Power Corp., the second recipient of an Energy Department loan guarantee in  
y storage company paid cash bonuses of \$259,285 to three executives in part du  
an, Securities and Exchange Commission records show. Last October, Beacon F

t, maker of lithium-ion battery systems, landed a \$118.5 million energy grant

Solyndra executives, bankruptcy records show, pocketed thousands in payments just months before the company dismissed 1,100 workers. At least 17 company executives received two sets of payments – ranging from \$37,000 to \$60,000 each payment – on the same days in April and July 2011. The insider payments, reported last year in the *San Jose Mercury News*, came as the company catapulted toward bankruptcy in early September. A Solyndra spokesman did not reply to interview requests.

Solyndra's crash last August put a sharp focus on the selection process the Energy Department follows in awarding taxpayer dollars. The administration backed the upstart firm [despite concerns](#) even from some government officials worried about Solyndra's financial viability, email records show. And, energy officials committed to the financing [before all due diligence](#) was in hand.

## Bankruptcies and bonuses

Not as well-known are three other firms backed by Energy Department dollars – ranging from \$500,000 to \$118.5 million – that also suffered financial downturns. As with Solyndra, each corporate entity rewarded executives prior to its bankruptcy filing.

One example: Ener1, whose subsidiary EnerDel won the \$118.5 million Energy Department grant in 2009 to help expand its manufacturing plant. The company also received supportive write-ups on the DOE website.

Vice President Biden's January 2011 visit to the company's Greenfield, Indiana, plant was part of the government's "White House to Main Street Tour."

"This Administration is forging a new path forward by making sure America doesn't just lead in the 21st Century, but dominates in the 21st Century," Biden [said](#) after a tour with Ener1 CEO Gassenheimer. "We're not just creating new jobs – but sparking whole new industries that will ensure our competitiveness for decades to come -- industries like electric vehicle manufacturing."

A White House report listed the EnerDel project as No. 67 among the "[100 Recovery Projects that are Changing America](#)."

In March 2011, Gassenheimer was awarded a \$450,000 bonus, SEC records show. Two other Ener1 executives pocketed bonuses of \$225,000 and \$50,000 for a total payout of \$725,000.

In January 2012, one year after Biden's visit, Ener1 filed for bankruptcy, citing \$73.9 million in assets and \$90.5 million in debts.

Energy officials noted that while the bonuses were paid to executives from Ener1, the government grant went to a subsidiary called EnerDel, which was not part of the bankruptcy case. But the two are closely related – bankruptcy records show EnerDel now provides all of the employees for the parent company. And the distinction is new for the Energy Department – a press release touting Biden's visit referred to the parent company Ener1 as the recipient of administration support, not EnerDel.

Gassenheimer, reached for an interview, said he could not comment. He is no longer with Ener1.

A company spokesman said the bonuses were paid through Ener1, the corporate holding company, not EnerDel. DOE said the subsidiary's project is on schedule, and an Ener1 spokesman said the battery company aims to get back on its feet through reorganization.

Beacon Power's bonuses were specifically linked to executives' progress in landing the company's \$43 million Energy Department loan guarantee in 2009.

Securing the loan was among the measures used to establish how much executives would pocket in bonuses, company [SEC filings](#) show. "The DOE loan application was approved by the credit review board, making us the first public company and the second of 16 applicants to receive the commitment," the document notes.

President and Chief Executive Officer F. William Capp received a \$133,256 cash bonus in March 2010. Two other company officials pocketed combined bonuses that month of \$126,029.

In an interview, Capp said the company's pay structure was reasonable and that executives took pay cuts in a bid to help Beacon Power survive.

"The record is clear on that. The executives have not enriched themselves," Capp said. "We all agreed to take a 20 percent reduction in pay just to make the funds last longer in order to keep the team together. There's hardly been self-enrichment."

Last week regulators approved Beacon Power's sale to an equity firm that should help it repay \$25 million of the \$39 million Beacon had drawn down from the loan. The company, under new ownership, plans to continue operating the 20-megawatt flywheel energy storage plant in Stephentown, New York, a project the department [said](#) would "ensure the reliable delivery of renewable energy to the electricity grid." It hopes to build a second plant in Pennsylvania.

Capp blamed the bankruptcy on a variety of factors, including government fears about restructuring loans after Solyndra filed for bankruptcy. His firm, he said, got swept up in "Hurricane Solyndra."

Among them: SpectraWatt, a New York state manufacturer of silicon solar cells. In 2009, SpectraWatt secured a \$500,000 grant from the DOE's National Renewable Energy Laboratory Photovoltaic Technology Pre-incubator program. In March 2010, U.S. Labor Secretary Hilda L. Solis and a local congressman toured the company's Hudson Valley Research Park in Hopewell Junction, N.Y., highlighting the wave of coming green jobs.

"President Obama and I understand and believe that the first thing we have to do to turn the economy around is provide American families with good jobs," the labor secretary said, according to a SpectraWatt [press release](#). "That is why we are committed to investing in greening our economy."

Yet, not long after, the company's momentum suddenly halted.

Last August, SpectraWatt filed for Chapter 11 bankruptcy protection.

"It all happened so quickly," Richard J. Haug, SpectraWatt's President and COO, said in an interview. The company's innovative technology, he said, butted up against changing market and pricing conditions, competition from the Chinese — and the fact that some early investors did not follow through.

"They couldn't locate any new money," he said. "It was very disappointing."

While the DOE's early grant supported research and development, Haug said, a later funding request was denied. Last March, he said, the company laid off its workforce and effectively shut down. "It became increasingly difficult for us to make any more money. By the end of 2010 we basically dropped down to a cash level ... that by March we would be out of business," Haug said.

In March, the big payouts began. Five company executives, including Haug, received six-figure payments in late March or early April 2011, bankruptcy records show. The five "insider payments" totaled more than \$745,000.

Haug said the payouts were not bonuses, but accrued vacation and pay for executives that had been spelled out in severance agreements. "There were no golden parachutes," he said. "This was a very straightforward very honest group of people. I'd go to work with them again anytime."

Energy officials noted that their early investment in SpectraWatt was relatively small compared to other project financing. Late last year, the company held auctions to sell off its plant and property.

In recent weeks, several other companies backed by DOE dollars have encountered deep financial woes.

At least six Energy Department loan and grant recipients — from electric car maker Fisker Automotive to electric-car battery maker A123 Systems to Colorado-based Abound Solar — have laid off workers or suffered financial woes. Those setbacks come on top of the companies that have already filed for bankruptcy.

Administration officials, from Obama on down, say they continue to support the green energy mission. "There were going to be some companies that did not work out," Obama told reporters in October, after Solyndra's meltdown. "All I can say is the



Congress of the United States  
House of Representatives

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

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LAWRENCE J. BRADY  
STAFF DIRECTOR

October 22, 2012

The Honorable Steven Chu  
Secretary  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

Dear Mr. Secretary:

The Committee on Oversight and Government Reform continues its oversight of the U.S. Department of Energy's (DOE) loan and loan guarantee programs, including awards to Fisker Automotive and Solyndra. In light of recent information, it has become clear that the DOE's poor stewardship of the Solyndra DOE loan will likely lead to taxpayer losses that far exceed \$535 million.<sup>1</sup> Specifically, I understand that, as Solyndra approached insolvency, alongside of the prioritization of a new loan above the DOE's loan, DOE also agreed to sacrifice its ownership rights in the event of bankruptcy.<sup>2</sup> These terms were agreed to in return for a relatively small loan of \$75 million from the original investors and private lenders.<sup>3</sup> When considering the tax implications, this loan restructuring positioned the original investors so that they could recover an enormous share of their losses in the failed Solyndra investment through future tax deductions.

DOE's failure will likely cause taxpayers to suffer an additional loss of up to \$341 million bringing the total taxpayer loss as high as \$849 million.<sup>4</sup> More troubling is that, according to press reports, the Office of Management and Budget (OMB) understood and warned of the tax implications to this deal.<sup>5</sup> In other words, the White House, through its budget office, was in a position to know that it was handing out nearly a billion dollars in tax breaks, worth nearly \$350 million in future income, in return for a relatively tiny \$75 million loan that extended Solyndra's life by just a few months.

<sup>1</sup> Opinion, *The Solyndra Memorial Tax Break*, Wall St. J. at A16, Oct. 16, 2012.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> Amy S. Elliott, *News Analysis: Solyndra's NOLs Post-Bankruptcy - Setting the Record Straight*, TaxAnalysts, Sept. 20, 2012; Opinion, *The Solyndra Memorial Tax Break*, Wall St. J. at A16.

<sup>5</sup> Opinion, *The Solyndra Memorial Tax Break*, Wall St. J. at A16.

## Background

Solyndra filed for Chapter 11 bankruptcy protection on September 6, 2011.<sup>6</sup> However, Solyndra's deteriorating financial condition was clear to DOE in the months before the company filed for bankruptcy. In fact, DOE released the last tranche of Solyndra's loan money just months before its bankruptcy in an attempt to keep the company solvent through the midterm elections.<sup>7</sup> By this point, Solyndra had already defaulted on the loan.<sup>8</sup>

DOE made a last ditch effort to extend the life of the failing solar manufacturer by agreeing to modify the terms to its \$535 million loan in order for Solyndra to receive an additional private loan of \$75 million. Specifically, Solyndra's largest investors, Argonaut Ventures LLC (Argonaut) and Madrone Partners LP (Madrone), loaned \$75 million in return for successfully diminishing DOE's loan priority and eliminating DOE's equity interest in the case of Solyndra's bankruptcy.

In what is described in greater detail below, the loan restructuring affected tax implications beyond what would result from a simple reduction in priority relative to another lender. The restructuring eliminated DOE's ability to gain ownership over the majority of Solyndra in the event of bankruptcy and opened the door for a major tax windfall to benefit Argonaut and Madrone.

## Specific Details to Restructuring of the DOE Loan to Solyndra

Argonaut, the investment division of the George Kaiser Family Foundation, was Solyndra's largest stockholder, owning 35.73 percent of the company.<sup>9</sup> George Kaiser is a Tulsa, Oklahoma billionaire, who made his fortune in the oil business, and he also happens to be a major fundraising bundler for the campaign to re-elect President Obama.<sup>10</sup> Madrone was Solyndra's second largest shareholder, owning 11 percent of the company.<sup>11</sup>

In February 2011, DOE approved a deal whereby Argonaut and Madrone would loan \$75 million to Solyndra in exchange for priority status over DOE in recouping repayment. This restructuring also disproportionately improved Argonaut-Madrone's standing in bankruptcy vis-à-vis DOE, particularly with regard to equity interests upon default.<sup>12</sup> The reduced standing of the DOE's claim is reflected in a *TaxAnalysts* article:

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<sup>6</sup> Tom Hals & Dan Levine, *Solyndra Investor Sought Tax Breaks as Bankruptcy Loomed-Filing*, Reuters, Oct. 10, 2012.

<sup>7</sup> Opinion, *The Solyndra Memorial Tax Break*, Wall St. J. at A16, Oct. 16, 2012.

<sup>8</sup> *Id.*

<sup>9</sup> Amy S. Elliott, *News Analysis: Solyndra's NOLs Post-Bankruptcy—Setting the Record Straight*, TaxAnalysts, Sept. 20, 2012; Opinion, *The Solyndra Memorial Tax Break*, Wall St. J. at A16, Oct. 16, 2012.

<sup>10</sup> Carol D. Leonnig & Joe Stephens, *Top Obama Donor George Kaiser Says He Didn't Play Politics to Win Government Loan*, Wash. Post Sept. 2, 2011.

<sup>11</sup> Amy S. Elliott, *News Analysis: Solyndra's NOLs Post-Bankruptcy—Setting the Record Straight*, TaxAnalysts.

<sup>12</sup> Opinion, *The Solyndra Memorial Tax Break*, Wall St. J. at A16, Oct. 16, 2012.

[B]ankruptcy lawyers who have looked at Solyndra's plan of reorganization have expressed surprise that the shareholders (with interests in Holdings, a class 9 claim) come out unimpaired and are able to capture the tax benefits while more senior creditors (like DOE, whose loan in part constitutes a class 4 claim) are impaired with an estimated recovery of zero.<sup>13</sup>

The unusual lack of recovery to a more senior claim could only result if DOE sacrificed more than just its priority position as the senior-most lender when it restructured the loan to attract the additional \$75 million loan. In fact, it appears that DOE effectively waived any potential equity interest in Solyndra prior to bankruptcy.<sup>14</sup>

Further highlighting Argonaut-Madrone's tax strategy, the manner in which they invited other lenders to participate in the \$75 million tranche is illuminating. Argonaut-Madrone provided that, to the extent other lenders participated, they would receive a potential ownership interest in Solyndra through warrants; however, if Solyndra failed, these warrants would revert to Argonaut-Madrone.<sup>15</sup> This reversion of warrants enabled Argonaut-Madrone to maximize their share of ownership of the net operating losses (NOL), while minimizing the additional dollars they themselves would need to invest in Solyndra.<sup>16</sup> In effect, by inviting others to participate in the loan, Argonaut-Madrone reduced the extent to which it would need to risk additional funds in the souring Solyndra investment, while increasing the ability to gain equity interests upon default.

DOE's approval of this loan restructuring allowed the Argonaut-Madrone holding company to capture the NOLs in the Solyndra bankruptcy.<sup>17</sup> DOE is expected to recover a minimal amount of its initial \$535 million loan, while the Internal Revenue Service (IRS) warns that the government may be out up to another \$341 million due to Argonaut-Madrone's tax write offs. As IRS stated to the United States Bankruptcy Court in Delaware:

... However, if it is assumed solely for purposes herein that Reorganized Holdings will have \$875 million to \$975 million of taxable income prior to expiration of the net operating loss carryforwards and that the entirety of Holdings' estimated net operating loss carryforwards are available to be applied against Reorganized Holdings' income without limitation, and if it is further assumed that the highest current federal corporate income tax rates of 35% applies, then Reorganized Holdings would benefit from a reduction in federal income tax liability of \$306 million to \$341 million.<sup>18</sup>

<sup>13</sup> Amy S. Elliott, *News Analysis: Solyndra's NOLs Post-Bankruptcy –Setting the Record Straight*, TaxAnalysts.

<sup>14</sup> See *id.* ("Solyndra's existing equity holders maintain their interests in the reorganized entity, Holdings, so 'as far as I can tell, any shifts in equity have occurred outside the [bankruptcy] plan,' he said.")

<sup>15</sup> Opinion, *The Solyndra Memorial Tax Break*, Wall St. J.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *In re: Solyndra LLC*, Trial Motion, Memorandum and Affidavit, U.S. Bankruptcy Court, D. Delaware, Sept. 4, 2012.

As the IRS made clear above, these NOLs provide Argonaut-Madrone with up to nearly a billion dollars in tax deductions, unless the IRS succeeds in opposing this outcome. However, the *TaxAnalysts* article indicates that the IRS has a tough case ahead of it.<sup>19</sup> If the IRS fails, these deductions will offset income from profitable businesses that they invest in, reducing Argonaut-Madrone's tax burden by up to \$341 million dollars.<sup>20</sup>

What is most puzzling is that an OMB staffer warned that the government "is better off liquidating the assets today than restructuring under DOE's proposal."<sup>21</sup> This implies the Administration understood the tax implications of the lopsided deal yet proceeded nonetheless.

The Committee is also concerned that DOE may have similarly failed to protect taxpayers in the case of other companies that obtained DOE loans and then restructured those agreements to attract outside capital.

Fisker Automotive obtained an Advanced Technology Vehicles Manufacturing (ATVM) Program loan for \$528.7 million on April 23, 2010. Fisker's delays in launching its first vehicle, the Karma, in the United States led DOE to freeze the loan and renegotiate the financial covenants with Fisker in June 2011. Fisker recently acknowledged that its more affordable American-built automobile, the Atlantic, would not launch until late 2014 or 2015.<sup>22</sup>

Like Solyndra, DOE allowed Fisker to find additional private investors after failing to adhere to financial covenants.<sup>23</sup> However, the details of how these investments affected underlying terms to the original DOE loan are unclear. As the Committee continues to conduct oversight on Fisker's ATVM loan, DOE is withholding important documents regarding these loans.<sup>24</sup> Given DOE's noncompliance, the Committee cannot assure taxpayers that, in the case of bankruptcy, a similar subordination of taxpayer interests will not occur.

To help the Committee understand these matters, please provide the following documents:

1. Provide all documents and communications produced or received by DOE between September of 2010 and April of 2011, including e-mails, referring or relating to the tax implications of the restructuring of the Solyndra loan.
2. Provide all communications between DOE and 1) OMB and 2) Treasury, referring or relating to the tax implications as they relate to the restructuring of DOE loans to Fisker and all other 1705, 1703 and ATVM DOE loans that were restructured or modified after origination.

<sup>19</sup> Amy S. Elliott, *News Analysis: Solyndra's NOLs Post-Bankruptcy—Setting the Record Straight*, *TaxAnalysts*.

<sup>20</sup> *Id.*

<sup>21</sup> Opinion, *The Solyndra Memorial Tax Break*, *Wall St. J.*

<sup>22</sup> Deepa Seetharaman, *Fisker Atlantic Sedan Production Pushed Back at Least Two Years*, *Reuters*, Oct. 15, 2012.

<sup>23</sup> Deepa Seetharaman, *Fisker Raises \$100 MM to Fund Development*, *Reuters*, Sept. 17, 2012.

<sup>24</sup> Letter from Hon. Darrell Issa, Chairman, H. Comm. on Oversight and Gov't Reform, to Hon. Steven Chu, Secretary, U.S. DOE, Feb. 10, 2012.

The Committee on Oversight and Government Reform is the principal oversight committee of the House of Representatives and may at "any time" investigate "any matter" as set forth in House Rule X. An attachment to this letter provides additional information about responding to the Committee's request.

We ask that you provide the requested information as soon as possible, but no later than 5:00 p.m. on **November 5, 2012**. When producing documents to the Committee, please deliver production sets to the Majority Staff in Room 2157 of the Rayburn House Office Building and the Minority Staff in Room 2471 of the Rayburn House Office Building. The Committee prefers, if possible, to receive all documents in electronic format.

If you have any questions about this request, please contact Joseph Brazauskas or Peter Haller of the Committee Staff at 202-225-5074. Thank you for your attention to this matter.

Sincerely,



Darrell Issa  
Chairman

Enclosure

cc: The Honorable Elijah E. Cummings, Ranking Minority Member



CC, TO, BCC, SUBJECT, TITLE, FILENAME, FILEEXT, FILESIZE, DATECREATED, TIMECREATED, DATELASTMOD, TIMELASTMOD, INTMSGID, INTMSGHEADER, NATIVELINK, INTFILPATH, EXCEPTION, BEGATTACH.

- Documents produced to the Committee should include an index describing the contents of the production. To the extent more than one CD, hard drive, memory stick, thumb drive, box or folder is produced, each CD, hard drive, memory stick, thumb drive, box or folder should contain an index describing its contents.
- Documents produced in response to this request shall be produced together with copies of file labels, dividers or identifying markers with which they were associated when the request was served.
- When you produce documents, you should identify the paragraph in the Committee's schedule to which the documents respond.
- It shall not be a basis for refusal to produce documents that any other person or entity also possesses non-identical or identical copies of the same documents.
- If any of the requested information is only reasonably available in machine-readable form (such as on a computer server, hard drive, or computer backup tape), you should consult with the Committee staff to determine the appropriate format in which to produce the information.
- If compliance with the request cannot be made in full by the specified return date, compliance shall be made to the extent possible by that date. An explanation of why full compliance is not possible shall be provided along with any partial production.
- In the event that a document is withheld on the basis of privilege, provide a privilege log containing the following information concerning any such document: (a) the privilege asserted; (b) the type of document; (c) the general subject matter; (d) the date, author and addressee; and (e) the relationship of the author and addressee to each other.
- If any document responsive to this request was, but no longer is, in your possession, custody, or control, identify the document (stating its date, author, subject and recipients) and explain the circumstances under which the document ceased to be in your possession, custody, or control.
- If a date or other descriptive detail set forth in this request referring to a document is inaccurate, but the actual date or other descriptive detail is known to you or is otherwise apparent from the context of the request, you are required to produce all documents which would be responsive as if the date or other descriptive detail were correct.
- Unless otherwise specified, the time period covered by this request is from January 1, 2009 to the present.
- This request is continuing in nature and applies to any newly-discovered information. Any record, document, compilation of data or information, not produced because it has not been

located or discovered by the return date, shall be produced immediately upon subsequent location or discovery.

17. All documents shall be Bates-stamped sequentially and produced sequentially.
18. Two sets of documents shall be delivered, one set to the Majority Staff and one set to the Minority Staff. When documents are produced to the Committee, production sets shall be delivered to the Majority Staff in Room 2157 of the Rayburn House Office Building and the Minority Staff in Room 2471 of the Rayburn House Office Building.
19. Upon completion of the document production, you should submit a written certification, signed by you or your counsel, stating that: (1) a diligent search has been completed of all documents in your possession, custody, or control which reasonably could contain responsive documents; and (2) all documents located during the search that are responsive have been produced to the Committee.

#### **Schedule Definitions**

1. The term "document" means any written, recorded, or graphic matter of any nature whatsoever, regardless of how recorded, and whether original or copy, including, but not limited to, the following: memoranda, reports, expense reports, books, manuals, instructions, financial reports, working papers, records, notes, letters, notices, confirmations, telegrams, receipts, appraisals, pamphlets, magazines, newspapers, prospectuses, inter-office and intra-office communications, electronic mail (e-mail), contracts, cables, notations of any type of conversation, telephone call, meeting or other communication, bulletins, printed matter, computer printouts, teletypes, invoices, transcripts, diaries, analyses, returns, summaries, minutes, bills, accounts, estimates, projections, comparisons, messages, correspondence, press releases, circulars, financial statements, reviews, opinions, offers, studies and investigations, questionnaires and surveys, and work sheets (and all drafts, preliminary versions, alterations, modifications, revisions, changes, and amendments of any of the foregoing, as well as any attachments or appendices thereto), and graphic or oral records or representations of any kind (including without limitation, photographs, charts, graphs, microfiche, microfilm, videotape, recordings and motion pictures), and electronic, mechanical, and electric records or representations of any kind (including, without limitation, tapes, cassettes, disks, and recordings) and other written, printed, typed, or other graphic or recorded matter of any kind or nature, however produced or reproduced, and whether preserved in writing, film, tape, disk, videotape or otherwise. A document bearing any notation not a part of the original text is to be considered a separate document. A draft or non-identical copy is a separate document within the meaning of this term.
2. The term "communication" means each manner or means of disclosure or exchange of information, regardless of means utilized, whether oral, electronic, by document or otherwise, and whether in a meeting, by telephone, facsimile, email (desktop or mobile device), text message, instant message, MMS or SMS message, regular mail, telexes, releases, or otherwise.



3. The terms "and" and "or" shall be construed broadly and either conjunctively or disjunctively to bring within the scope of this request any information which might otherwise be construed to be outside its scope. The singular includes plural number, and vice versa. The masculine includes the feminine and neuter genders.
4. The terms "person" or "persons" mean natural persons, firms, partnerships, associations, corporations, subsidiaries, divisions, departments, joint ventures, proprietorships, syndicates, or other legal, business or government entities, and all subsidiaries, affiliates, divisions, departments, branches, or other units thereof.
5. The term "identify," when used in a question about individuals, means to provide the following information: (a) the individual's complete name and title; and (b) the individual's business address and phone number.
6. The term "referring or relating," with respect to any given subject, means anything that constitutes, contains, embodies, reflects, identifies, states, refers to, deals with or is pertinent to that subject in any manner whatsoever.
7. The term "employee" means agent, borrowed employee, casual employee, consultant, contractor, de facto employee, independent contractor, joint adventurer, loaned employee, part-time employee, permanent employee, provisional employee, subcontractor, or any other type of service provider.



U.S. DEPARTMENT OF

**ENERGY**

*Advanced Technology Vehicle  
Manufacturing Loan Program*

December 2008



- Authorized under Section 136 of the Energy Independence and Security Act (EISA) of 2007 (P.L. 110-140).

- Funded by the FY09 CR, providing for up to \$25 billion in direct loans supporting production of advanced technology vehicles and components in the U.S.

- DOE issued the Interim Final Rule (IFR) on 11/05/08, 26 days ahead of statutory mandate, allowing DOE to begin accepting and evaluating applications.

- Timeline for the issuance of funds will depend on when applications are submitted, application thoroughness, and processing of required permits or approvals.



U.S. DEPARTMENT OF

**ENERGY**

# Applications

- The IFR identifies qualifying elements for the loan program, as well as application requirements.
- Applicants will be allowed to make detailed multiple loan requests in a single application.
- Applications will be reviewed as they are submitted and considered in 90 day tranches – the deadline for the first tranche is December 31, 2008.
- Following a 30 day public comment period on the IFR, DOE will evaluate the program and determine when to issue a Final Rule.



- Criteria for projects and costs eligible to receive direct loans set by Congress.
- The key criteria for qualified advanced technology vehicles or qualified components includes:
  - Manufacturing facilities be located in the U.S.;
  - Engineering integration be performed in the U.S.;
  - Costs be reasonably related to the reequipping, expanding, or establishing a manufacturing facility in the U.S.; and
  - Costs of engineering integration be performed in the U.S.
- Loans will not be available on a retroactive basis; past advanced technology investments are ineligible.

The IFR established the “base year” for CAFÉ standards to be Vehicle Model Year (MY) 2005.

For comparative purposes, DOE has grouped vehicles with substantially similar attributes by:

- Classes previously defined by EPA; and
- Additional subclasses for performance vehicles.

In order to qualify as an advanced technology vehicle under the IFR, an applicant must demonstrate that a vehicle has a fuel economy performance at least 125% of the average MY 2005 fuel economy of the appropriate class.

# Fuel Economy by Vehicle Class

Vehicle Class	Power <sup>1</sup> / Weight <sup>2</sup>	2005 Fuel Economy <sup>3</sup>	2005 mpg x 125%
Two-Seater	< 0.121	25.3	31.6
Two-Seater Performance	≥ 0.121	22.2	27.8
Minicompact	< 0.088	29.3	36.7
Minicompact Performance	≥ 0.088	22.4	28.0
Subcompact	< 0.082	29.6	37.0
Subcompact Performance	≥ 0.082	22.8	28.5
Compact	< 0.073	33.8	42.2
Compact Performance	≥ 0.073	23.6	29.5
Mid-Size	< 0.085	29.4	36.7
Mid-Size Performance	≥ 0.085	23.1	28.9
Large	n/a	26.2	32.7
Small Wagon	n/a	32.7	40.8
Mid-Size and Large Wagon	n/a	26.7	33.4
Small and Standard Pickup	n/a	19.7	24.6
Minivan	n/a	24.3	30.4
Passenger Van	n/a	19.0	23.8
Cargo Van	n/a	<b>19.9</b>	<b>24.8</b>
Sports Utility Vehicle	n/a	21.8	27.2

Peak horsepower (hp)

Curb weight (lbs)

55/45 (city/highway) composite (mpg)



## **Environmental Assessment Preparation**

- Determination to prepare an EA.
- Notification sent to state.
- Concurrent consultation, as appropriate, including:
  - State Historic Preservation Officer (National Historic Preservation Act);
  - U.S. Fish and Wildlife Service (Endangered Species Act); and
  - American Indian Tribes (Executive Order 13175).
- Submit draft EA to state and Tribes for review and comment.
- Prepare Finding of No Significant Impact, if appropriate, or Notice of Intent to prepare an EIS.



U.S. DEPARTMENT OF ENERGY

**ADVANCED TECHNOLOGY VEHICLES  
MANUFACTURING LOAN PROGRAM**

Forrestal Building  
Large Auditorium  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585

Monday, December 1, 2008

**Panel Members:**

Lachlan Seward  
Carol Bottomhall

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Carol Battershell, Senior Advisor  
Office of Energy Efficiency and Renewable Energy (EERE)

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U.S. DEPARTMENT OF ENERGY

**ADVANCED TECHNOLOGY VEHICLES  
MANUFACTURING LOAN PROGRAM**

Forrestal Building  
Large Auditorium  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585

Friday, December 5, 2008

**Panel Members:**

Lachlan Seward  
Carol Battershell

# The Washington Times

## Treasury oversight of Solyndra loan was cut short

*Inspector General: Approval review 'rushed' and ill-defined*

By [Jerry Seper](#)

The Washington Times

Thursday, April 5, 2012

- [Comments \(0\)\(/news/2012/apr/5/treasury-oversight-of-solyndra-loan-was-cut-short/#disqus\\_thread\)](#)
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The [Treasury Department\(/topics/department-of-the-treasury/\)](#)'s oversight role of a half-billion-dollar federal loan guarantee to [Solyndra LLC\(/topics/solyndra-llc/\)](#) was not sufficiently defined, the consultation that did occur was "rushed" and no records were kept as to how Treasury's serious concerns with the loan were addressed, a report says.

The [department\(/topics/united-states-department-of-the-treasury/\)](#)'s [Office of Inspector General\(/topics/office-of-inspector-general/\)](#), in a report this week, said inspectors who examined the \$535 million [Solyndra\(/topics/solyndra-llc/\)](#) loan were given only one day to look at the company's books before a press release was issued announcing the loan.

The 20-page report said investigators were not sure if the loan "met the intent of the applicable law and regulation" because Treasury's "consultative role was not sufficiently defined." It also noted that Treasury audited itself after "heightened media attention and congressional inquiries" surrounding the loan.

The [Solyndra\(/topics/solyndra-llc/\)](#) loan, which has come under considerable criticism on Capitol Hill and had been touted by the [Obama administration\(/topics/barack-obama/\)](#) as a top example of how green technology could deliver increased jobs, was guaranteed by the [Energy Department\(/topics/united-states-department-of-energy/\)](#) under the authority of the American Recovery and Reinvestment Act.

President Obama had hailed [Solyndra\(/topics/solyndra-llc/\)](#) during a tour of the company, saying the firm expected to hire 1,000 workers and make enough panels over the lifetime of its planned expanded facility that it would be like replacing eight coal-fired power plants.

"It's here that companies like [Solyndra\(/topics/solyndra-llc/\)](#) are leading the way toward a brighter and more prosperous future," Mr. Obama said.

\* Solar Trust has rights to Blythe Solar Power Project

\* Blythe project in California would be world's largest

\* German parent sued separately by former CEO

April 2 (Reuters) - Solar Trust of America LLC, which holds the development rights for the world's largest solar power project, on Monday filed for bankruptcy protection after its majority owner began insolvency proceedings in [Germany](#).

The Oakland-based company has held rights for the 1,000-megawatt Blythe Solar Power Project in the southern California desert, which last April won a conditional commitment for a \$2.1 billion loan guarantee from the U.S. Department of Energy. It is unclear how the bankruptcy will affect that project. Solar Trust did not receive the loan guarantee.

Solar Trust said it ran short of liquidity after Solar Millennium AG S2MG.DE, which holds a 70 percent stake, sought court protection in December.

Solar Millennium then tried to sell that stake to solarhybrid AG SHLG.DE, but that transaction collapsed when solarhybrid also sought court protection in Germany.

Edward Kleinschmidt, Solar Trust of America's chief operating officer, in a court filing said the company has already missed two quarterly rent payments on the Blythe project, and cannot make several other payments due imminently.

He said NextEra Energy Resources LLC has committed to provide some financing and "expressed an interest" in serving as an initial bidder for some assets.

Ferrostaal AG owns the other 30 percent of Solar Trust of America but does not provide financial help, Kleinschmidt said.

Solar Trust of America and several affiliates filed for protection from creditors with the U.S. bankruptcy court in Delaware. It estimated to have as much as \$10 million of assets, and between \$50 million and \$100 million of liabilities.

Blythe is about 220 miles (354 km) southeast of Los Angeles.

"We have been working with Solar Trust of America for a couple of years in getting this project going," David Lane, Blythe's city manager, said in an

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# The Greentech VC Influence Over Washington

By [Katie Fehrenbacher](#) Aug. 18, 2010, 8:28am PDT [No Comments](#)  
[Buzz](#) - [0](#)



There've been a couple articles in the past few weeks pointing to President Obama as the "clean tech investor in chief" and the [presidential VC with bets on clean energy](#). The real trend is that venture capitalists focusing on greentech seem to have had an unprecedented influence on U.S. federal policy and allocations of the stimulus package.

When I attended the Department of Energy's (DOE) first [ARPA-E conference](#) (Advanced Research Projects Agency-Energy) earlier this year in Washington D.C., I was struck by how many venture capitalists were there. I shared a cab back to the airport with some familiar Silicon Valley faces, and was told if your firm didn't have a dedicated person in Washington — in some circles they call them lobbyists — maneuvering grant and loan programs, you weren't able to be competitive.

Just look at the figures from the stimulus package (which I am fully in support of): somewhere between \$50 billion and \$80 billion into clean power and energy efficiency initiatives ([depending on](#)

[now you see it](#)). The Obama administration has gone out of its way to seek the advice of green-leaning venture capitalists and entrepreneurs in the Valley on how to spend that colossal amount and what programs would be the most affective.

Kleiner Perkins managing partner John Doerr is on President Obama's [Economic Recovery Advisory Board](#), and was able to convince Vice President Al Gore to join Kleiner, in addition to former Secretary of State Colin Powell. Kleiner's investments have had some successful government bids, most notably the [\\$529 million loan to Kleiner portfolio](#) company Fisker Automotive out of the DOE's highly competitive Advanced Technology Vehicles Manufacturing, or ATVM, program. Fisker plans to use the loan to build its factory and launch its electric vehicle in 2011.

If you remember, another winner of the \$25 billion ATVM program was Tesla Motors, which, as most of us know, was backed by venture capitalists from Draper Fisher Jurvetson, Technology Partners, and Vantage Point among others.

I attended Khosla Venture's LP meeting earlier this year where the firm [announced that former UK Prime Minister Tony Blair](#) would be joining the firm as Senior Advisor. Several of my journalism peers were comparing the political influence Blair could wield to what Kleiner was doing with Gore.

The Obama administration appointed [former venture capitalist Jonathan Silver](#) as its loan chief to lead both the DOE's loan guarantee and ATVM loan programs. About a third of the DOE's loan guarantee commitments went to venture-backed startups, including thin film solar maker Solyndra and solar thermal company BrightSource.

I [wondered earlier this year](#) if the loan guarantee for Solyndra wasn't a mistake, given the company has one of the highest manufacturing costs out of its competitors. The company withdrew its IPO plans, citing poor market conditions. The Government Accountability Office also found that the loan guarantee process treated some companies unfairly in their bids and risked "excluding some potential applicants unnecessarily."

There's nothing inherently wrong with venture-backed companies getting government support, and the energy sector needs even more federal funding to create innovation. I support Doerr and Bill Gates' [calls for boosting federal government](#) investing to \$16 billion per year into energy innovation. All I'm saying is that this level of influence should be watched.

Morano on Tesla electric cars and CEO Elon Musk: 'That is what we are finding, model after model, across the board, the consumers are not interested...Tesla reported sales 30% below expectations...Lost \$660 million over 14 quarters...CEO Elon Musk is driven by fear of CO2, worrying that it will destroy large parts of the earth. He's an ideologue. This guy is worth \$2 billion.'

By Marc Morano – Climate Depot

Monday, October 15, 2012

Climate Depot's Morano on Fox News on October 12, 2012 to discuss electric cars and Tesla.

Watch [here](#).

### **Related Links:**

The DOE Restructured Its Loan to Tesla: 'Imagine that. Weeks to go before the election and the Department of Energy has restructured its \$465 million loan to the electric-car company to make sure it didn't run out of cash. The *New York Times* reports: (Emphasis mine)

As it ramps up sales of its sleek electric sedan, Tesla doesn't appear to be much of a loser right now. But a closer look at company's cash flows suggests it is hardly out of the woods...The federal government eased terms of its \$465 million loan to Tesla to ensure the company didn't breach key financial hurdles. The company then raised \$193 million in a secondary stock offering, easing cash concerns... Tesla's CEO has said he raised the \$193 million "simply for risk reduction." Yeah. It's called the risk to Obama of Tesla running out of cash right before the election.'

Taxpayers Subsidize Forbes 'Green' Billionaires' Schemes: Musk, best known as co-founder of the company that became PayPal, is Chairman of SolarCity and CEO of Tesla. According to the Center for Responsive Politics, SolarCity spent \$535,000 in 2009 and 2010 to lobby Congress and the Department of Energy on climate legislation, the Recovery Act, "green workforce training and development," and provisions in various legislation "relevant to solar development." ... So far, according to DOE reports, SolarCity has received more than \$66 million from that program. The company also won a partial guarantee from DOE of a \$344 million loan that will place up to 160,000 rooftop solar installations on military housing across the country. Similarly, Musk's Tesla Motors spent \$480,000 from 2007 to 2011 to lobby Congress, the White House, EPA and DOE on climate and energy issues, the Advanced Technology Vehicles Manufacturing loan program, the Promoting Electric Vehicles Act, and the Recovery Act. Tesla received a \$465 million loan



Executive Elon Musk dismisses fears the electric carmaker was in financial trouble and said it was making an advance payment on the federal loan used to make its Model S sedan.

How Does Paying \$40,000 For A Tesla EV Replacement Battery Sound? "The Tesla electric car's batteries will cost \$40,000 to replace when they run out of juice - how appealing are those electric car advantages at resale time? The Tesla electric car is produced by a company run by a whiny corporate billionaire and taxpayer welfare mooch - to the tune of \$450 million in U.S. taxpayer loans provided by Obama. What did Obama see in the company? Great question, and btw, don't expect the loan to be repaid, ever.

Who killed the electric car? You, perhaps, if you didn't charge it: 'DON'T leave your electric car parked for too long - by the time you get back it could have turned into a \$200,000 brick. Electric car maker Tesla is defending claims its cars become immobilized if the battery ever becomes completely discharged. This results in a battery replacement cost of about one-fifth the car's \$206,000 sticker price.'

Oops. Major Design Flaw Found With Tesla Electric Cars: 'Sounds like another \$500 million down Obama's taxpayer-funded toilet'

"It's A Brick" - Tesla Motors' Design Problem Devastating: "Tesla Motors' lineup of all-electric vehicles - its existing Roadster, almost certainly its impending Model S, and possibly its future Model X - apparently suffer from a severe limitation that can largely destroy the value of the vehicle. If the battery is ever totally discharged, the owner is left with what Tesla describes as a "brick": a completely immobile vehicle that cannot be started or even pushed down the street. The only known remedy is for the owner to pay Tesla approximately \$40,000 to replace the entire battery. Unlike practically every other modern car problem, neither Tesla's warranty nor typical car insurance policies provide any protection from this major financial loss."

More on the Electric Edsel: It is 1890 and horse travel is becoming problematic. The horses poo all over the place, making a disgusting mess in crowded urban areas - and they're just not practical for speedy, efficient travel in a rapidly industrializing nation. Did the government start throwing billions (well, millions in those days) at politically connected big businesses to develop an alternative? The answer, of course, is no. Inventors thought about the problem and tinkered. The internal combustion engine (gas and diesel) was invented - and perfected. It became reliable - and soon, affordable. Henry Ford and others like him came along. Cars replaced horses. And - a key fact - impractical cars such as the early steam-powered and electric cars - were dropped in favor of practical cars like the Model T, which put the country (not just the elites) behind the wheel.

The analysts at Green Car Reports, "the ultimate guide to cleaner, greener driving," worry that the Fisker Karma may discredit the entire Department of Energy loan program.

Elon Musk, a tycoon who has reaped millions of dollars from government for schemes



## Wednesday, September 1, 2010 & Thursday, September 9, 2010

Department of Energy's Loan Programs Office ([www.lgprogram.energy.gov](http://www.lgprogram.energy.gov)) is hosting two webinars that will discuss the Program's most recent announcements regarding open solicitations for loan guarantees and new ways to apply. Specifically:

- New Round 8, Part I & II deadlines for the Energy Efficiency, Renewable Energy and Advanced Transmission and Distribution Technologies Solicitation (2009);
- Eligibility information and application requirements in connection with the Solicitation for Federal Loan Guarantees for Projects that Manufacture Commercial Technology Renewable Energy Systems and Components; and
- New methods of submitting materials via the online application portal.

Each live webinar will have the same format and will cover all three topics. Both webinars will include a presentation and a brief Q&A for attendee questions. Potential applicants, industry professionals and other interested parties are welcome to attend. The dates for the webinars are as follows:

3:00 p.m. – 3:30 p.m. EDT – Wednesday, September 1, 2010

3:00 p.m. – 3:30 p.m. EDT – Thursday, September 9, 2010

Register for either webinar:

<https://www1.gotomeeting.com/register/683912936> – Wednesday, September 1, 2010

<https://www1.gotomeeting.com/register/412304929> – Thursday, September 9, 2010

If your internet security blocks these sites, click "continue to site" or register through [www.lgprogram.energy.gov](http://www.lgprogram.energy.gov)

# DOE's Steven Chu Does It, It's Green Energy.

Nick Gillespie | March 15, 2012

Via [Instapaper](#) linking to [The Fiscal Times](#) comes documentation of just what an easy grader Department of Energy (DOE) [Secretary Steven Chu](#) really is. As you'll recall, a while back the Nobel laureate cum bureaucrat was asked by Rep. Paul Brown (R-Ga.) to grade his performance at DOE. Chu's humble response? "There's always room for improvement, maybe an A-."

The Fiscal Times' Edward Morrissey writes about the new Government Accountability Office report on the performance of DOE's loan-guarantee program which gave way to Solyndra and other debacles. Suffice it to say, GAO wasn't grading on a curve set by the performance of Obama's cabinet. Snippets:



The GAO looked at the handling of \$30 billion outstanding in loan guarantees and future commitments and discovered that the DOE rarely follows its own written procedures for vetting and auditing applications. In fact, in many cases, the Loan Guarantee Program (LGP) couldn't even find the data managers needed to administer the loans properly...

In almost every case study investigated by the GAO, important steps got skipped in the reviews that determined whether loan applications would be granted. In other cases, the documentation was so poor that the GAO couldn't figure out what the LGP did...

The process had at least an 85 percent failure rate on its process check. Most people would not associate that level of process accuracy with a grade of A-minus....

With \$30 billion in taxpayer money at risk, the DOE under Steven Chu didn't bother to conduct the reviews it claimed it would on applications for loan guarantees, didn't keep records of what reviews they did accomplish, and signed off on loans with incomplete documentation and inadequate oversight of the risk. The result -- perhaps [\\$6.5 billion immediately at risk](#), according to CBS, and possibly most of the \$30 billion.

Morrissey drives home the point that when it comes to lending standards and the vilification of private financial institutions processing mortgages that were either backed or bought up by government-sponsored enterprises, the





Tesla Motors might be hiding a big [battery issue](#) from their customers. Apparently, the company's electric vehicles, including their Roadster and the upcoming Model S, feature a battery pack which if completely discharged might leave a huge financial burden on the unfortunate owner. But is the owner unfortunate, or simply a bit careless?

According to an article by Michael Degusta over at [theunderstatement.com](#), if a Tesla electric car, such as the Roadster is parked unplugged, it will eventually become what the company calls a "brick". The vehicle can no more be started or even pushed down the road. This is the result of the car's always-on subsystems which continually feed on the battery.

And when the battery dies, the owner ends up paying Tesla approximately \$40,000 for replacing the battery pack. Reportedly, there is no protection available via warranty or a car insurance policy for this particular problem. Apparently, at least five Tesla owners were unfortunate enough to end up with this problem. Degusta says Tesla is unwilling to let their customers know about the issue, although they know that it's a big one.

But don't you have a slight feeling that Degusta's argument is nonsense. That's because it is.

If you are familiar with electric cars or batteries or even smartphones, you might know the fact that the battery which is not recharged will eventually die. And since the battery pack on a Roadster is not your usual \$100 laptop battery, people will have to pay a huge price for not finding the time for maintenance.

And a Tesla, as you know, has an electric motor. There is lot less maintenance required for the vehicle when compared to a vehicle with a [combustion engine](#). So it's not too difficult to pay attention to the charge in the battery packs. And the company has designed the car in such a way that it warns the owner (and even the company, in the case of the latest Roadster) when the battery is low. The owners who ended up with a brick might have ignored all the warnings.

So who is culpable here?

Tesla has this to say in response to Degusta's article: "[All automobiles](#) require some level of owner care. For example, [combustion vehicles](#) require regular oil changes or the engine will be destroyed. [Electric](#)

# Will electric cars ignite a lithium boom?

Some suggest the lithium supply could eventually be tighter than oil is today

Tags: [electric cars](#), [lithium](#)



During last year's American presidential campaign, John McCain laid out his plan to jump-start the electric car industry with a US\$300-million reward for whomever could build a better battery. His then rival, Barack Obama, roundly mocked the scheme, calling it a "gimmick." But it turns out that Obama's biggest problem with the plan may have been there weren't enough zeros in the prize.

Any day now, the U.S. Department of Energy is expected to announce the winning recipients of grants to foster a domestic automotive battery industry, and this time the pot is worth US\$2.4-billion. Washington has already handed out US\$8 billion in loans to Ford, Tesla and Nissan to promote cleaner vehicles—which the latter plans to tap to build an automotive battery plant in Tennessee. And just last week Ontario jumped in to pledge incentives of as much as \$10,000 per car to lure drivers into buying electrics.

With such vast sums sloshing around, it's no surprise that companies and investors are rubbing their hands over the prospect of a boom in the market for lithium. This unique metal, so soft you can cut it with a knife and so reactive it can become explosive when it comes in contact with water, is a key ingredient in the next generation of car batteries, and as plug-in hybrid and electric cars hit the mass market, some are wondering where all that

lithium-ion battery technology is going to create shortages, says Jacob Grasse, an analyst at Lux Research. In other words, if the fear now is Peak Oil, could the crisis next decade be Peak Lithium?

Lithium-ion batteries are far from new. For two decades they've increasingly found their way into iPods and laptops, which now account for 20 per cent of the lithium market. (The rest goes to ceramics, glass and pharmaceuticals.) For the same reasons gadget-makers use them—lithium-ion batteries are lighter than other types, and kick out twice the power—more and more car companies plan to put them into their plug-in hybrids and electric cars.

Along with the environmental benefits, a key driver in this push is to reduce the West's dependence on Middle East oil. But it turns out that with lithium-ion batteries, the U.S. will still be forced to rely on foreigners. China is a major source of the mineral, as are Chile and Argentina, where it is extracted from brine pools. The world's largest undeveloped lithium deposit is located in Bolivia, which has already indicated it won't let foreign companies mine its reserves, and that could be a problem. Bolivia is hardly a friend to the U.S.—the government of President Evo Morales recently accused America's ambassador of trying to break up the country and expelled him. In a report to Congress last month, the U.S. Government Accountability Office warned that by switching from gas-powered cars to lithium battery cars the U.S. could simply "substitute reliance on one foreign resource for another."

This could be a major concern if supplies become strained—and some say they will as electric cars catch on. Obama aims to have one million electric cars on U.S. roads by 2015, while JPMorgan predicts hybrid sales will reach 9.6 million three years later. Japanese carmaker Mitsubishi has said demand for electric cars could surpass supply by 2015, and a commonly-cited 2006 report by William Tahil of Meridian International Research, entitled *The Trouble With Lithium*, suggests the lithium supply could eventually be tighter than oil is today.

However, others question such predictions. For one thing, though Tahil's report is repeatedly referenced in news reports, there are good reasons to be suspicious of its contents. An earlier study by Tahil on the 9/11 terrorist attacks offered "incontrovertible proof" the towers were destroyed by "nuclear explosions." Even ignoring Tahil's bizarre research history, his report assumes virtually every car sold each year—all 60 million of them—will be electric.

"People who argue we'll have peak lithium make huge assumptions about the size of the market," says Kent Furst, an analyst at the Freedonia Group. The U.S. Geological Survey's lithium analyst, Brian Jaskula, agrees. Should electric cars become wildly popular, he says, there is still enough supply to meet demand for the next decade. That doesn't include the lithium in Bolivia, a large Nevada lithium mine proposed by Vancouver-based Western Lithium, or potential deposits in Canada.

Besides, while engines constantly consume oil, a lithium battery can power a car for years. If lithium supplies do become an issue some day, by then other battery technologies may have taken over, says Bob Kruse, a executive with GM's clean energy vehicle program. While the Chevy Volt electric car debuts next year, the company is already working on the second- and third-generations of the car. Testing other types of batteries "don't think

# Flammability Assessment of Bulk-Packed, Rechargeable Lithium-Ion Cells in Transport Category Aircraft

Harry Webster

September 2006

Final Report

This document is available to the U.S. public through the National Technical Information Service (NTIS), Springfield, Virginia 22161.



U.S. Department of Transportation  
**Federal Aviation Administration**



FIGURE 4. EXPENDED CELL WITH METALLIC BEADS ON POSITIVE TERMINAL



FIGURE 5. EXPLODED CELL AND ITS CONTENTS





FIGURE 7. HIGH-SPEED VIDEO CAPTURE OF FIRST EVENT



FIGURE 8. HIGH-SPEED VIDEO CAPTURE OF SECOND EVENT



FIGURE 9. HIGH-SPEED VIDEO CAPTURE OF EXPLODING CELL

#### 4.2 MULTIPLE CELL TESTS IN THE 64-CUBIC-FOOT CHAMBER

A series of tests were conducted to determine the flammability of multiple cells, simulating the tightly packed configuration that would be found in bulk shipment. The tests were conducted using the 5.25" fire pan, 50 ml of 1-propanol, and a wire basket suspending the cells 3" above the fire pan. The cells were tested in groups of 4, 8, and 16 in both 50% and 100% charged states.

##### 4.2.1 The 50% Charge

Each test resulted in similar peak temperatures, measured 12" above the fire pan, of approximately 1200°-1300°F. The duration of the peak temperature increased with additional cells, but the actual peak did not significantly vary. This peak is about 500°-600°F above that of the 1-propanol fire alone. Peak heat flux was under 0.5 Btu/ft<sup>2</sup>-sec. The heat generated by the burning electrolyte was usually enough to cause the adjacent cells to vent. Generally, the cells would eventually reach the Second Event; however, once the alcohol fire was exhausted, the electrolyte did not ignite. Cells at a 50% charge rarely exploded. Figure 10 shows a typical test with eight cells.

## Delphi Solid Oxide Fuel Cell Auxiliary Power Unit

**Description** – Delphi's solid oxide fuel cell (SOFC) auxiliary power unit (APU) will be a high-efficiency generator of electricity, delivering up to 5 kW of energy. It converts chemical energy in fuels such as diesel and gasoline directly into electricity, without combustion. The electrochemical process combines fuel and oxidant gases across an ion-conducting ceramic membrane. The solid oxide cell consists of two electrodes and an electrolyte. Reformate consisting of hydrogen and carbon monoxide is fed to the anode, and oxygen in the form of air is fed to the cathode. This process generates electric voltage at the electrodes and can continuously supply electric power to external loads.

**Typical Application** – Delphi's new SOFC APU is expected to serve both transportation and non-transportation markets.

On heavy-duty trucks, Delphi's SOFC APU will help eliminate the need for engine idling. On-board convenience features such as power air conditioning heater, televisions, radios, computer, and other electronic devices can be powered by the SOFC APU without the need to run the main engine. Other "power on demand" accessories (e.g., cooling fan, water pump, etc.) can also be operated by the SOFC unit.

Because of its quiet, emission-free operation, Delphi's SOFC APU is also suitable for military vehicle and recreational vehicle applications.



**Performance Advantages** – In a vehicle application, Delphi SOFC APU provides a clean, highly efficient supply of electrical power that is also independent of engine operation. Thus, a steady supply of electricity is available without the need to idle the engine or draw on the vehicle's battery. It operates at twice the fuel efficiency of a traditional engine-driven generator. During engine operation, it can also be a source of reformate to the engine and exhaust aftertreatment, to enable lower-emission cold starts and transient operation.

In all applications, Delphi SOFC APU operates quietly and with virtually zero emissions.

**Availability** – Delphi plans to make available prototype samples of its SOFC APU by late 2005.

# DELPHI

[www.delphi.com](http://www.delphi.com)

Delphi Energy & Chassis  
3820 Delphi Drive  
Building D  
Troy, Michigan 48068-2812 U.S.A.  
Tel: (313) 248.8112/2000

## DEPARTMENT OF ENERGY

**Budget Trends and Oversight**

GAO-12-659T, Apr 18, 2012

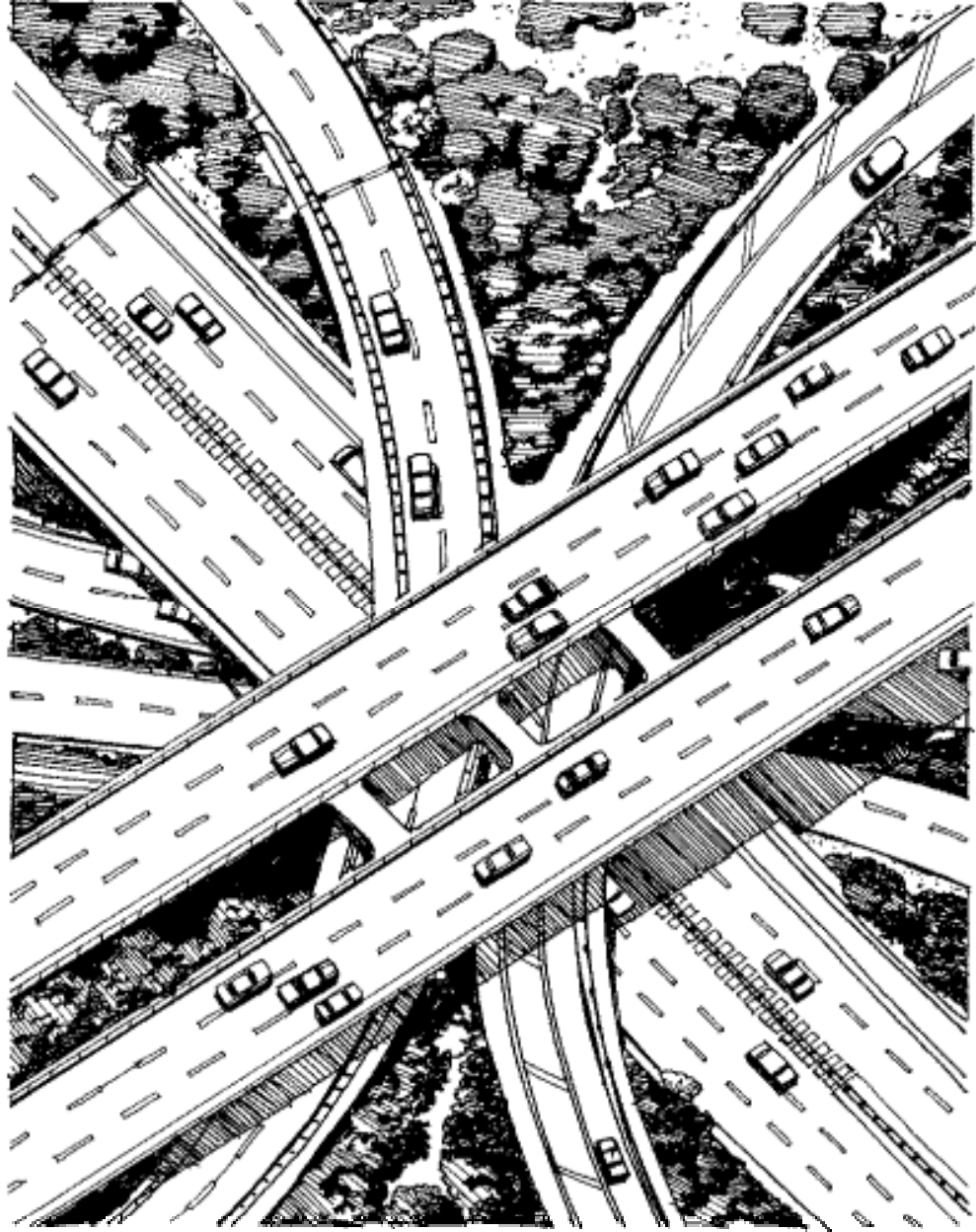
**Franklin W. Rusco**(202) 512-3841  
ruscof@gao.gov**Office of Public Affairs**(202) 512-4800  
youngc1@gao.gov**What GAO Found**

Recent GAO work found that funding increases have expanded or created Department of Energy (DOE) programs with varying results. For example:

- **Advanced Research Projects Agency-Energy (ARPA-E)** awards grants to projects that help develop high-risk energy technologies. Since fiscal year 2009 the program has received \$855 million to fund energy projects that industry by itself was not likely to undertake. GAO found that ARPA-E uses several selection criteria in awarding funds, but its requirements for information on private funding could be improved.
- **The Loan Guarantee Program** provides loan guarantees for innovative energy technologies. DOE has made about \$15 billion in loan guarantees and is authorized to make up to \$34 billion in additional loan guarantees. GAO found that the program does not have sufficient data to facilitate oversight, and its actual process for reviewing applications has differed from the established process.
- **The Weatherization Assistance Program** helps low-income families reduce their energy bills by making long-term energy efficiency improvements to their homes. The American Recovery and Reinvestment Act of 2009 (Recovery Act) provided \$5 billion to enhance the program's ability to make energy efficiency improvements to low-income family homes. GAO made recommendations to DOE to clarify the program's production targets (e.g., the number of homes weatherized) and guidance.
- **The Advanced Technology Vehicles Manufacturing Loan Program** provides loans for projects to produce more fuel-efficient passenger vehicles and their components. DOE can make up to \$25 billion in loans for fuel-efficient vehicles; at the time of GAO's review, DOE could not be assured that projects would be delivered as agreed.

GAO also reported that improvements at DOE may provide opportunities for increasing savings and enhancing revenue. For example:

- **Contractor support costs.** DOE's management of contractors, who operate DOE sites and represent 90 percent of DOE's budget, has historically been decentralized, or fragmented. This adds to inefficiencies in support functions. Since 2007, DOE and contractors at some DOE sites have had efforts to streamline these functions. GAO recommended that DOE assess whether further opportunities could be taken to streamline such functions.
- **Diesel emissions.** DOE, the Department of Transportation, and the Environmental Protection Agency receive federal funding to reduce diesel emissions from mobile sources—14 programs in all, which also overlap on certain activities. DOE received \$572 million for its 3 programs. GAO recommended that the three agencies





**“Let’s Go Get Some  
Lithium!”**



to their home:







HERE IS THE BATTERY YOU COULD HAVE BEEN SITTING ON TOP OF IN A TESLA



THIS IS THE TESLA MAGIC CARPET OF DOOM. THIS WHOLE THING IS FULL OF LITHIUM. YOUR WHOLE FAMILY IS SUPPOSED TO SIT ON TOP OF THIS!!!

ing at paying for this saying: "You knew this would happen".

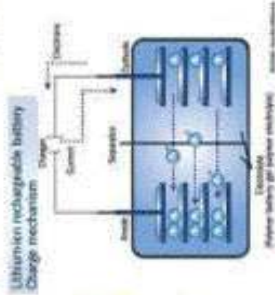


ic cars that burst into flames just because they GOT WET:

89863/more-than-a-dozen-fisker-karma-hybrids-caught-fire-and



Incidents of cell phones with lithium ion batteries blowing up in peoples pockets, notebook computers, notebook computers blowing up in big fires have been deeply documented.



LITHIUM ION BATTERIES BLOWING UP ON THEIR OWN



# Elon Musk Had Amazing Severance Packages For Tesla Employees In Case The Company Failed

 KAMELIA ANGELOVA | NOV. 26, 2013, 4:47 PM  4,072  3

 Recommend  Share 9  Tweet 106  +1 10  EMAIL  MORE

Click for sound.



Tesla and SpaceX were [on the verge of bankruptcy in 2008](#) and Elon Musk was about to lose all his money, but the founder made sure that his employees would be taken care of, if the companies failed.







**DO  
NOT  
PASS**



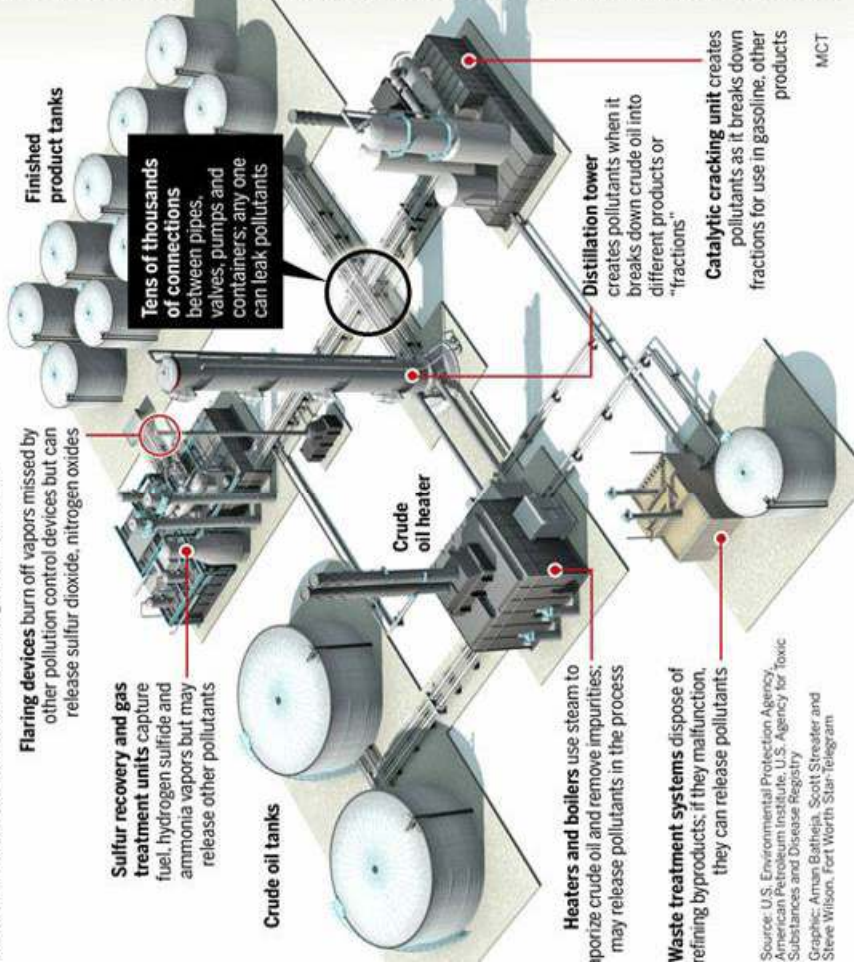


**SENATOR  
POCKET  
LOADING**



# How an oil refinery can pollute the air

This simplified diagram of an oil refinery shows some of the parts that can release hazardous chemicals and gases into the air:



## Refinery air pollutants

### Ammonia gas

Irritates tissues; low level can irritate eyes, nasal passages; high level can kill

### Benzene

Carcinogen, may harm fetuses; can cause dizziness, sleepiness, convulsions, rapid pulse, coma or death

### Hydrogen sulfide

"Rotten egg" gas; inhaling even a small amount can kill

### Nitrogen oxides

Source of ground-level ozone, which can trigger asthma attacks, aggravate bronchitis, emphysema, other chronic respiratory diseases

### Volatile organic compounds

Another source of ozone; linked to cancer, lung and immune system damage

### Sulfur dioxide

Tiny particles linked to numerous respiratory problems; with water vapor, creates acid rain

### Microscopic particles

Lodge deep inside lungs, can cause asthma, heart attack, premature death

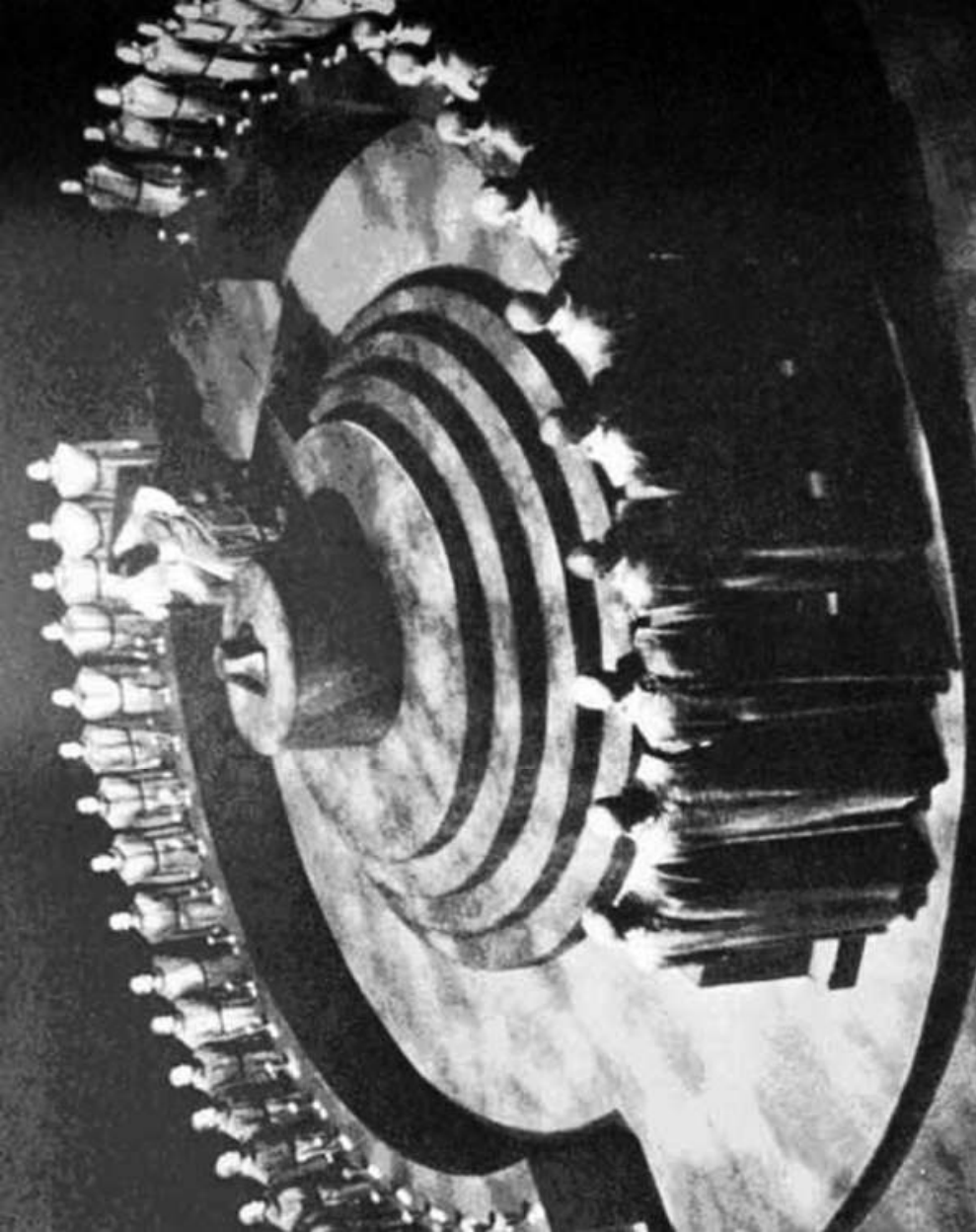
### Carbon monoxide

Gas from smokestacks, vehicle tailpipes; high amounts deprive brain of oxygen, can cause brain damage and death

Source: U.S. Environmental Protection Agency, American Petroleum Institute, U.S. Agency for Toxic Substances and Hazardous Waste  
Graphic: Aman Batheja, Scott Streeter and Steve Wilson, Fort Worth Star-Telegram









## Famous sociopaths: Elon Musk?



People frequently ask me whether there are any "good" sociopaths or "famous" sociopaths, meaning any sociopaths that people might know and respect without necessarily knowing and respecting that they are a sociopath. Of course it's all guessing games because even if that person was aware that they were a sociopath, there is no reason why they would out themselves (just to be socially ostracized and professionally second-guessed). If you read between the lines, though, there are plenty of sociopaths out there doing things, like Elon Musk, co-founder of PayPal, Space Exploration Technologies (which contracted with NASA to basically replace the Space Shuttle in servicing the Space Station), and current CEO of Tesla Motors: in a dated *New Yorker* article, which is unfortunately unavailable without a subscription, the following sociopathic characteristics or quotes are revealed (all are quotes from the article, the text in quotation marks are from Musk unless otherwise indicated):

- "We're like a giant parallel supercomputer, and each of our brains runs a piece of the software" contrasted with "Most people don't know much."
- "The people who know me generally have a good impression. Generally, if I didn't fire them, then they have a good impression."
- He fell silent for two minutes, processing. Then he announced, "I'm going to call Dan Neil and say, 'What the fuck?' Starting with a negative conclusion and backfilling the facts is a classic dickhead move—and a classic human fallacy." Humans!
- [—]e believes it's the duty of the intelligent and educated to replicate, "so we don't devolve into a not very literate, theocratic, and unenlightened future." As part of his program for *Homo sapiens*, the beta version, he reminds unfruitful employees, "You should have, on average, 2.1 kids per woman."
- [Tesla Chief Technology Office J.B. Straubel] says, "As the company has matured, it has become more of a worthy adversary for Elon. He constantly wants everything we're doing to be really difficult, but he works really hard to make sure it's not impossible. He almost won't let us fail." Justice Musk observes, "I like to compare him to the Terminator. He sets his program and just . . . will . . . not . . . stop."

RELATIONSHIPS - ADVICE

# BEL

ates Are Extra

on Of Drunken

For Rick Perry Sex

HPV Vaccine

And I'm Out

Against A

# The Special Hell Of Being A "S



At their wedding

"I am the alpha repeating, "If you would fire you."

multimillionaire about their divorce

This happened in London, and on

complete with g Claire, where Ju

writes about her proceedings with

PayPal among o projects. Whether

divorces are inhe

RED

GEAR SCIENCE ENTERTAINMENT

ISS

people

startups

economy

tesla Motors' Musk: Let Me Run Det

ET VAN BUSKIRK 06.15.09

12:55 PM

ew @listeningpos

maintain a peaceful coexistence with these remorseless and incorrigible  
**Psychopaths** who hide among us behind their masks of sanity.



## "PSYCHOPATHIC TRAITS"

While most of us tend to think of a psychopath (or sociopath) as simply a deranged individual who can kill or maim without feeling any remorse or compassion, that's an oversimplification of a very complex condition. There's actually a lot more to it than that. Actual psychopathy requires the coexistence of several key indicators. Here are some important ones to watch for:

- Insincerity, coupled with superficial charm.
- An inflated sense of self-worth, egocentric.
- Lies habitually.
- Manipulative.
- Remorseless. Can easily rationalize wrongdoings.
- Shows little in the way of emotion or feelings.
- Fakes emotions.
- Callousness, lacks empathy.
- Failure to accept responsibility for their own action(s).
- Easily bored. Needs constant stimulation.
- Takes advantage of the goodwill of others.
- Lack of realistic long-term goals.
- Impulsiveness.
- Behavioral problems earlier in life.
- Poor **behavior control**.
- Irresponsibility.
- Commitment issues, many short-term relationships.



SENATOR JOHN BARRASSO, M.D.  
VICE CHAIRMAN

September 20, 2011

## **\$olyndra Received More \$timulus \$\$\$ than 35 States Received for Highways, Roads, and Bridges**

***\$olyndra's Bill: \$535,000,000***

<b>State</b>	<b>Total Distribution</b>	<b>State</b>	<b>Total Distribution</b>
Alabama	513,692,083	Mississippi	354,564,343
Alaska	175,461,487	Montana	211,793,391
Arizona	521,958,401	Nebraska	235,589,279
Arkansas	351,544,468	Nevada	201,352,460
Colorado	403,924,130	New Hampshire	129,440,556
Connecticut	302,053,956	New Mexico	252,644,377
Delaware	121,828,650	North Dakota	170,126,497
D.C.	123,507,842	Oklahoma	464,655,225
Hawaii	125,746,380	Oregon	333,902,389
Idaho	181,934,631	Rhode Island	137,095,725
Iowa	358,162,431	South Carolina	463,081,483
Kansas	347,817,167	South Dakota	183,027,359
Kentucky	421,094,991	Utah	213,545,653
Louisiana	429,859,427	Vermont	125,791,291
Maine	130,752,032	Washington	492,242,337
Maryland	431,034,777	West Virginia	210,852,204
Massachusetts	437,865,255	Wisconsin	529,111,915
Minnesota	502,284,177	Wyoming	157,616,058

*Source: U.S. Department Transportation Federal Highway Administration*

*Apportionment of Funds for Highway Infrastructure Investment Pursuant to the  
American Recovery and Reinvestment Act*

# government stealing their ideas



by [Eric Shawn](#) • Published December 17, 2013 • [FishMeets.com](#)



179



216



110

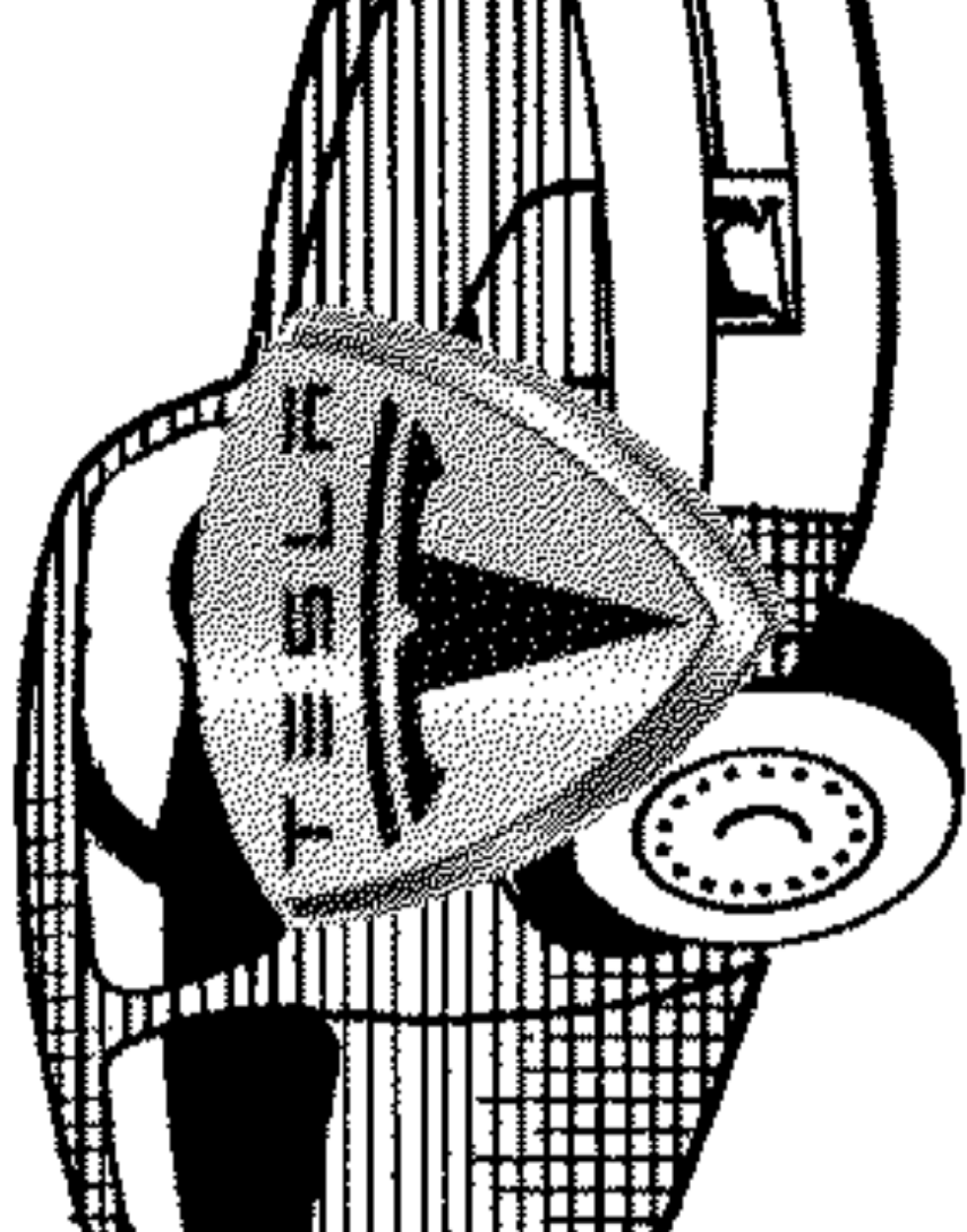


A black and white photograph of a stop sign. The sign is octagonal with a white border and a dark grey center. The word "STOP" is written in large, white, sans-serif capital letters in the center. Two circular reflective lenses are mounted on the sign, one on the left and one on the right. The sign is attached to a dark metal post with four screws. The background is a light-colored wall with vertical lines.

**STOP**







SENT FROM HEAVEN

**IT WILL HARDLY BURN YOUR FACE OFF**

TO DRIVE LIKE HELL

TESLAMOTORS.COM





**TESLA: THE OFFICIAL  
CAR OF DOUCHE BAGS**



**TESLA ON FIRE WITH  
CANCER CAUSING SMOKE**

A black Tesla car is parked on a road. A person wearing a bright green shirt is standing next to the car. The background shows trees and a clear sky. The car's license plate is visible and reads '20210'.

**Tesla on fire with  
cancer causing  
smoke**



DESIGNED FOR

LIVING



SAFE TESLA  
DRIVING

EST THEIR BATTERIES IN a BLAST CH



IT IN A STEEL ENCLOSED EXPLOSION ROOM WT



TESLA BATTERIES EXPLODE INTO FLAMES ON PUBLIC ROAD



TESLA BATTERIES EXPLODE INTO FLAMES ON PUBLIC ROAD





EVERY REVOLUTION BEGINS WITH



THE HUNGER GAMES  
**CATCHING FIRE**



THE HUNGER GAMES

**CATCHING FIRE**

2013

© 2013 TWENTIETH CENTURY FOX

## [s dead after the first day | Forums | Tesla Motors](#)

the 2nd key would fix the problem... well, the 2nd key was 30 ... They would unl

o fix the car in my ...

om/forum/forums/[tesla-model-s-dead-after-first-day](#) - [View by Ixquick Proxy](#) - [High](#)

## [or Opens Spontaneously | Forums | Tesla Motors](#)

i to be because of a defective charging cable. ... is locked when it is parked in a p  
ort door is locked.

om/forum/forums/[charge-port-door-opens-spontaneously](#) - [View by Ixquick Proxy](#) -

## [me Model S cars due to seat-mount defect ...](#)

etric car maker Tesla Motors will recall 1228 of its 2013 Model S cars ... The Palo  
alled its first model, the two-door ...

es.com/ci\_23491448/[tesla-recalls-some-model-s-cars-due-seat](#) - [View by Ixquick](#)

## [Warning! Random Door Opening While Locked! \[Archive ...](#)

re out the problem and fix it ASAP. ... I have started to lock the door manually (k  
pending on the ...

tb.com/archive/index.php/t-13017.html - [View by Ixquick Proxy](#) - [Highlight](#)



In this Wednesday, Nov. 6, 2013 photo provided by the Tennessee Highway Patrol, emergency workers respond to a fire on a Tesla Model S electric car in Smyrna, Tenn. Spokeswoman Liz Jarvis

**SLA MOTOR  
BRATION CAUSING  
CTAL ITCHING**



**la drivers like**

**twisted sex**

**evere dou**



Two weeks ago my right rear **door** handle assembly was replaced by the **Tesla** Ranger. He also replaced the 12v battery as a separate issue. This week, my driver **door** handle has the same **problem** and they are coming this week to replace it.  
[teslamotors.com/nl\\_NL/forum/forums/door-handle-problems](http://teslamotors.com/nl_NL/forum/forums/door-handle-problems)

## **T** **Door Problem | Forums | Tesla Motors**

... rispondi ai filoni di discussione aperti con i proprietari e gli appassionati **Tesla**, oppure ... I only noticed it today when the car wouldn't **lock**. ... The old design still uses a pressure switch and because there is no give when pulling on the **door** handle, this causes **problems with** the ...  
[teslamotors.com/it\\_IT/forum/forums/door-problem](http://teslamotors.com/it_IT/forum/forums/door-problem)

## **Tesla Model S gets Consumer Reports' recommendation - Oct. 28 ...**

The **Tesla** Model S is now Consumer Reports Recommended. The Model S isn't perfect, according to its owners, but none have reported any **problems with** the car's battery-powered electric drive system or with the enormous iPad-like touch screen inside the cabin.  
[money.cnn.com/2013/10/28/autos/tesla-model-s-consumer...](http://money.cnn.com/2013/10/28/autos/tesla-model-s-consumer...)

## **Tesla Model S: Glitches, Quirks, and Peccadilloes Roundup**

**Door locks** are electronic on many cars. If a solenoid misfires, the **door** unlocks. ... the **door problems** are a lie despite **Tesla's** publicly acknowledging the **problem**, etc... When people write good things, they are true and you don't question them.  
[greencarreports.com/news/1081935\\_tesla-model-s-glitches-qui...](http://greencarreports.com/news/1081935_tesla-model-s-glitches-qui...)

## **T** **Door Won't Open! - Tesla Motors Club - Enthusiasts & Owners Forum**

So I got my **Tesla** S Performance and was so excited to show it off to as many people ... Do you have 4.2 (1.19.42) installed? I had **problems with** this exact **door**. It only worked randomly. I did the update and it hasn't failed to work. The **door** seemed to get better (before my update) the more ...  
[teslamotorsclub.com/showthread.php/13213-Door-Won-t-Open!](http://teslamotorsclub.com/showthread.php/13213-Door-Won-t-Open!)



davann

2h



davann #tesla #teslaonfire #3rdteslaonfire  
iamsohai @teslamotorsfremont #teslamotors





**TE**

**FIREMAN WITH FIRE EXTINGUISHER TRYING TO PUT TESLA FIRE OUT**



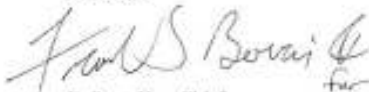
**Due Date**

Tesla's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by January 14, 2014. Tesla's response must include all non-confidential attachments and a redacted version of all documents that contain confidential information. If Tesla finds that it is unable to provide all of the information requested within the time allotted, Tesla must request an extension from me at (202) 366-0139 no later than five business days before the response due date. If Tesla is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information Tesla then has available, even if an extension has been granted.

Please send email notification to Will Godfrey at [will.godfrey@dot.gov](mailto:will.godfrey@dot.gov) and to [ODI\\_IRresponse@dot.gov](mailto:ODI_IRresponse@dot.gov) when Tesla sends its response to this office and indicate whether there is confidential information as part of Tesla's response.

If you have any technical questions concerning this matter, please call Will Godfrey of my staff at (202) 366-5231.

Sincerely,

A handwritten signature in cursive script, appearing to read "D. Scott Yon".

D. Scott Yon, Chief  
Vehicle Integrity Division  
Office of Defects Investigation



THE HUNGER GAMES  
**CATCHING FIRE**

2013



