



Remy

**Remy International, Inc.
Business Overview**

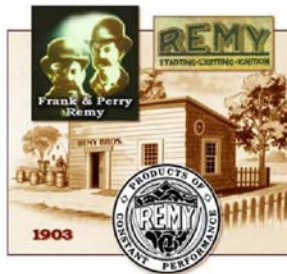
**Department of Energy
October 24, 2008**

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Remy

Company Profile

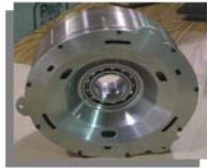


- Headquarters: Pendleton, Indiana USA
- Formed in 1896 in Indiana USA as Remy Electric Company
- Sales 2007: \$1.2B
- Employees (09/30/2008): 6,900
- Facilities: 48 in 11 countries
- #1 producer of starters in North America
- Annual Production:
 - Automotive Starters & Alternators: 10.8M
 - Heavy Duty Starters & Alternators: 1.3M
 - Electrical Remanufactured Products: 5.5M
 - Hybrid Products by 2009: 100K

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Remy's Product Expertise



Hybrid Drive Motors



Automotive Alternators



Automotive Starters

Hybrid Drive Motors, Starters and Alternators

Great new energy saving and advanced recycling technology.

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Advanced Fuel Efficiency Technology

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Remy Green

Recycle Focused Remanufacturing Technologies

- Starter Motors
- Alternators



Utilizing world class eco-friendly remanufacturing processes to recover and reuse existing products, reduce landfill waste and minimize raw material usage and energy.

Energy Efficient New Technologies

- Hybrid Drive Motors
- High Efficiency Alternators
- Belt Alternator Starters (BAS)

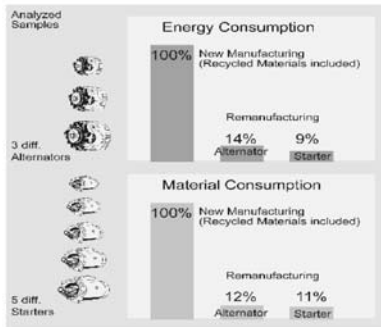
Exciting new ways to improve fuel economy through efficient rotating electrical machines.

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Parts Remanufacturing

The Power of Recycling



Remanufacturing Benefits for the Environment:

- **Energy Conservation:**
Automotive and truck parts are kept out of the resmelting process saving millions of barrels of oil or comparable forms of energy.
- **Raw Material Conservation:**
Rebuilders annually save millions of tons of natural resources such as iron, aluminum, copper, etc.
- **Landfill Space Conserved:**
Landfills are spared from millions of tons of iron, aluminum, copper, etc., because of the monetary value the industry places on parts. A "core charge" ensures parts are returned to be rebuilt.
- **Air Pollution Reduced:**
Keeping old parts out of the smelting process reduces air pollution and carbon dioxide.

Recycling and Re-Using ... Dramatically Reducing Material and Energy.



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Energy Efficient Alternators – Current Applications

➤ High Efficiency Alternator

- Provides charging power for commercial truck idling solutions
- 15% more efficient than standard industry alternator
- Enables Class 7 & 8 trucks to reduce oil consumption by 1.70 million barrels per year



➤ Belt Driven Alternator Starter (BAS)

- Allows for start/stop vehicle operation and regenerative braking (shuts engine down when vehicle stops)
- Enables 10-15% reduction in fuel consumption in automotive applications



Enabling Technology for Improved Fuel Efficiency

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Hybrid Drive Motors - Current Application

Full-Hybrid



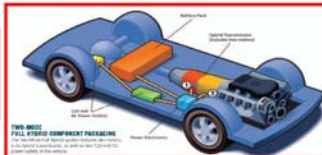
Remy Focus

Mild-Hybrid



Increasing price and Value

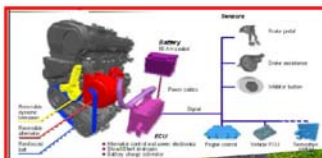
BAS / Micro-Hybrid
(Belt driven Alternator Starter)



Motor / Generator Integrated in Transmission
 Space / parts minimized
 High electric power
 Full Electric launch and re-gen



Electric Machine Between Engine and Transmission
 Some electric launch
 Some regen
 Extra parts, longer pkg
 Limited power



Rotating Machine on Accessory Belt
 • Replaces Alternator
 • Small Engines
 • Start-stop
 • No pure electric launch

High Growth, Emerging Market

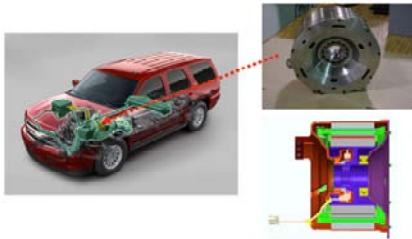
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Hybrid Drive Motors – Current Automotive Applications

GM SUV Hybrid Motor Modules

- Currently in production on 2 mode hybrid drive system used in GM SUVs and trucks
- Remy Proprietary/Patented Technology
- Remy technology enabled GM Tahoe SUV to achieve 2008 Green Car of the Year and best in class fuel mileage ratings - matching Toyota 4 Cyl Camry MPG



Daimler AHS-C Project

- Two large IPM machines for a hybrid transmission
- Concentrated winding IPM machine
- Remy Proprietary/Patented Technology
- Expected 2009 production



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Remy EP8 vs. Toyota Prius



- Remy product shows substantial improvement over the Toyota product:
 - 74% weight, 73% volume, 108% torque density, 197% continuous power density
- Both are interior permanent magnet (IPM) machines. However, Remy's stator and rotor designs provide significant performance advantages.

Remy design provides performance advantage over foreign competitors and exceeds all DOE performance targets...USA technology at work.

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Remy **Hybrid Drive Motors – Future Commercial Vehicle Applications**

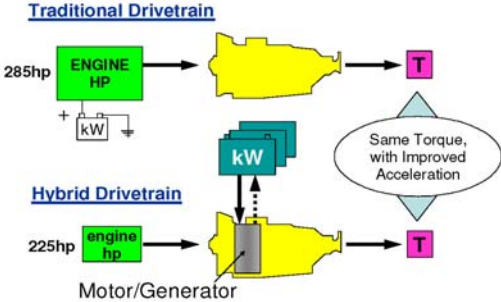
➤ **Heavy Duty Application**

- Focus on city vehicles for maximum impact
- Pickup & Delivery, UPS/FedEx, Expediter, Shuttle Bus, Beverage, Stake Flat, Landscape/Garbage

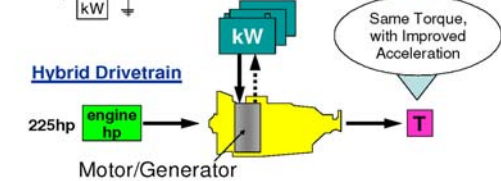
➤ **Expectations & Benefits**

- 30 to 40% Improvement in Fuel Economy – Base System
- 40 to 60% Improvement in Fuel Economy – ePTO
- Reduced Emissions (particulate, VOC, CO₂)
- Allow Bio-diesel use as available

Traditional Drivetrain



Hybrid Drivetrain



Same Torque, with Improved Acceleration

Focused effort on reduced emissions in non-attainment areas (cities)

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DOE Loan Program Needs

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Remy International, Inc.

Remy is Willing To...

- Invest in new R&D development and expand workforce in US engineering technical center.
- Invest in required capital expenditures to manufacture prototype and production tooling and products.
- Expand US-based production facilities and increase manufacturing workforce.

...but Remy can only accomplish this with your support.

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Recommendations Regarding Advanced Technology Vehicles Manufacturing Incentive Program

- **Use of the Loan Money** – Sec. 136(b) and 136(d)
 - Companies who receive awards referenced in Sec. 136(b) to fund up to 30% of facility and engineering integration costs to produce qualifying advanced technology vehicles or qualifying components, should be allowed to utilize loan money referenced in Sec. 136(d) to fund some of the remaining 70% of the costs of standing up production and engineering facilities. Auto companies and component suppliers are starved capital. It might be difficult for these companies to come up with the 70 percent match utilize the award program if it requires the generation of additional cash.
 - Award funds provided under Sec. 136(b) may be used for reequipping, expanding, or establishing a manufacturing facility in the U.S. to produce qualifying vehicles and qualifying components; and to pay for engineering integration performed in the U.S. Companies who receive awards and loans under Sec. 136 should be allowed to use these funds for costs associated for moving production back to the U.S, including without limitation logistics costs, inventory costs for building parts bank, social costs to layoff foreign workers, etc.

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Recommendations Regarding Advanced Technology Vehicles Manufacturing Incentive Program

➤ Loan Covenant Challenges

- Remy believes it will not be alone in the challenges of receiving government awards and loans under Sec. 136, in light of existing credit arrangements and secured bank partners faced by all in the auto industry.
- Rules should allow recipients to receive loan money under Sec. 136(d) in such manner that (i) is not prohibited or constrained by any existing credit agreement, and (ii) any waiver required by a current lien holder would be allowed at no cost to the company requesting the waiver.

➤ Engineering Integration Costs – Sec. 136(a)(3)

- Costs for prototype tooling and component costs, hiring technical employees (engineers, drafters, technicians, etc.) and production manufacturing tooling should be allowable costs under Sec. 136(a)(3)

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