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The Hybrid Vehicle and Alternative Fuel Report

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HYBRIDS

National hybrid sales update for February 2009. See the *hybridCARS.com* table of hybrid sales by model for January (Berman, 2009a). Car sales in general and hybrids, in particular, improved in February over January. However, the year over year comparison for February 2008 to February 2009 was real bad (down 28.7%), although hybrids out-performed the market. Auto sales, in general were down 41.4%.

Both Ford and Toyota announced major milestones in hybrid history this month, *The New York Times* blogged. Ford produced its 100 thousandth hybrid and Toyota sold its 1 millionth hybrid in the United States (Garrett, 2009).

Frederick Smith,* founder of FedEx is calling dependence on oil the biggest threat to both our economy and national security. Mr. Smith says that part of the solution is more hybrid vehicles, and advocates several types of hybrid vehicles, including electric, hydraulic, and plug-in. Mr. Smith is co-chairman of the Energy Security Leadership Council made up of industry executives and retired military personnel. He also has opinions about transportation tax policy. Mr. Smith advocates a carbon tax rather than a miles-driven tax (*Light & Medium Truck*, 2009).

While FedEx's Mr. Smith is advocating plug-in hybrids (PHEVs), a group of Carnegie Mellon researchers are saying that plug-ins may not always be the best option. Small PHEVs designed to get 20-40 miles between charges may be the most fuel-efficient and produce fewer green house gasses, but once the vehicle exceeds the 40 mile range, the increased weight due to battery size negates any efficiencies achieved (Shiau,

* No known relationship to the editor, but doubtless, a fine fellow.

Samaras, Hauffe, & Michalek, 2009). This is one of those reports that many groups may attempt to spin to support their own particular view point, so I strongly recommend reading the report for yourself, here, rather than depending on some third-party's one-paragraph summary.

In the hybrid mileage wars, Ford's Fusion briefly ruled the roost at 41 miles per gallon. That was until Toyota announced the official EPA estimate for the third-generation Prius: 51 miles per gallon. The new, larger engine in the new Prius provides higher torque, which allows the engine to run at lower and more fuel-efficient rpms (Chang, *The New York Times*, 2009). Brad Berman (2009b) of *hybridCars.com* thinks that Toyota's time on top may not last. Preliminary results have the new Honda Insight coming in at well over 60 mpg.

For you readers who thought hybrid cars were a recent innovation, Brad Berman (2009c) of *hybridCars.com* reports that the first U. S. patent for a hybrid car was granted on March 2, 1909. The patent was given to a Belgian gun maker who created a system requiring drivers to shift a lever to change from internal combustion power to electric. But this wasn't the first hybrid, either. Porsche developed a series hybrid similar to Chevrolet's modern Volt. The Porsche had a gas engine which powered an electric generator, which, in turn, powered the wheels. See, also, *Green Car Reports* coverage of the same event (Voelcker, 2009). *Green Car* offers photographs of two of the original hybrids.

Bringing us up to date, Renton's Kenworth received the largest single order ever for hybrid trucks, *Transport Topics* (2009) announced. Coca Cola placed the order for 150 diesel-electric tractors and 35 twelve-bay delivery trucks. Coke currently operates a fleet of 120 hybrid delivery trucks.

Peterbilt announced in a recent press release that its full line of commercial hybrid trucks is eligible for EPA grants covering up to 25% of the cost of the vehicle. The grants are intended to support state, local, and municipal governments, non-profit organizations, or the private companies that operate fleets for those organizations (Newport Communications, 2009). More information is available at Peterbilt's website.

ALTERNATIVE FUELS

Dan Neil (2009) of the *Los Angeles Times* profiled the Honda FCX, the fuel cell vehicle. While Mr. Neil waxed enthusiastic about how well the car drove and handled, he did point out that the car may be the most expensive ever built—he estimates the car at $2 million a copy.

Telecommunications giant AT&T plans to purchase 8,000 compressed natural gas (CNG) vehicles to its fleet over the next 10 years, the *San Antonio Business Journal* (2009) relates. The CNG vehicles will replace gasoline fuel service trucks. AT&T also plans to replace 7,100 passenger vehicles with hybrids. The company will also consider other alternative fuel vehicles.

ASSORTED TECHNOLOGY

Smith Electric Vehicles[†] will build an all-electric delivery truck, the Smith Newton, in the United States, *FleetOwner* (2009) and *Trailer-Body Builders* (Dressman, 2009) report. The new truck will get 50 mph and about 100 miles on a charge. It should haul about 16,000 pounds of cargo in urban delivery areas. Smith has a history of building all-electric vehicles in Europe and is working on a joint venture in England with Ford and Tanfield Group to create an all-electric Ford delivery van.

The Hybrid Report tends to dedicate a lot of space to hybrid and alternative fuel vehicles, but then, with a name like *The Hybrid Vehicle and Alternative Fuel Repor*t, what do you expect? But hybrids and alternative fuels are not the only game in town according *New York Times* reporter William Diem (2009). Diem reported from the Geneva Auto Show covering technological improvements to internal combustion engines that are intended to increase fuel efficiency. The first improvement Mr. Diem covers is a VW super- and turbocharged engine that gets 35 miles per gallon on gasoline. Next, Rinspeed, a French company, has changed the way electronic engine controls work. Rinspeed is working on an engine with two settings: commuting, which will get 58 miles per gallon; and highway, which will get 33. Drivers will be able to push a button to get the right setting.

Also from Geneva, *Automotive News Europe* reports on Nissan-Renault's marketing plan to release all electric vehicles for the European Market next year. Nissan will develop different marketing plans for different countries, rather than have a single plan for all of Europe. The plans will work on a spectrum from leasing cars and batteries to selling the cars but leasing the batteries. Nissan is also planning a mass market for electric cars. If they believed electric cars would only serve a niche market, Nissan would not be in that business, a company rep said (Lewin, 2009).

Nissan is also planning a four-city U. S. introduction of electric vehicles, with Tucson, Arizona, becoming the latest city to sign on to Nissan's introduction strategy. The plan calls for Tucson, Portland, Oregon, Santa Barbara, and a city to be named in Tennessee to develop public electric charging stations, *Physorg.com* reported (Kelly, 2009). This article was contributed by Joe Tario of New York State's Energy Research and Development Authority by way of Mia Waters at WSDOT's Urban Corridors Office.

[†] No known relationship to the editor, but doubtless, a fine company.

From Santa Barbara, *Automotive News Europe* (2009) reports that Ford CEO Alan Mulally says that Ford will be heavily invested in electric and hybrid cars in ten years. Ford is ramping up financing of its alternative energy vehicle development. The company currently depends on pickups for 60% of its sales, but Mr. Mulally says that needs to change.

Shocking news from MIT: Students at the Cambridge, Massachusetts, university have developed a truck shock absorber that generates electricity. As the shock absorber smoothes the ride, the movement of hydraulic fluid within the shock absorber moves through a turbine built into the unit. The shock absorber can create fuel savings in the neighborhood of up to 10% and may also be able to provide power to accessories on trucks (*Green Car Congress*, 2009).

The Royal Society of Chemistry has more news from MIT concerning the development of a lithium "super battery" that has higher charge and discharge rates, considered essential for the use of the batteries in electric cars. Without faster charge rates, electric vehicles have to charge for hours or have very large and heavy banks of batteries (Birch, 2009).

ENVIRONMENTAL ISSUES

The Seattle Times profiles the West Coast's Green Highway, a plan that the Governors of Washington, Oregon, and California are working on that will bring a number of eco-friendly and alternative fueling options to Interstate 5. The article does outline some opposition to the plan, primarily from truck stop operators who dislike the notion of competing with government or subsidize operations in rest areas (Sullivan, 2009). The article quotes WSDOT's Jeff Doyle.

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