



The Hybrid Vehicle and Alternative Fuel Report
November 15, 2009

The fine print: This is a summary of articles appearing in popular, business, and technical media referring to the impact of fuel costs and fuel efficiency on vehicle technology, development, and markets appearing during the first half of November, 2009. At the end of the report is a listing of all articles summarized, with hyperlinks to internet sources where available. Some hyperlinks may require free registration or paid subscriptions to access. The appearance of articles, products, opinions, humor (such as it is), and links in this summary does not constitute an endorsement of the same by the Washington State Department of Transportation. Photos and other artwork included in the report are either included with permission or are in the public domain. *The Hybrid Vehicle and Alternative Fuel Report* (ISSN 1946-1011) is compiled by Thomas L. R. Smith, Ph. D., Economic Analysis Section, Budget and Financial Analysis Office of the Washington State Department of Transportation. Contact the editor at smithtm@wsdot.wa.gov or (360) 705-7941. Contributions of articles and positive comments about *The Report* are welcome.

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HYBRIDS

National hybrid sales update for October 2009. The usual hybrid sales update comes from Bradley Berman’s *hybridCars.com*. Mr. Berman did not report this month, so we found sales data from *Green Car Congress*. There were 24,475 total hybrids sold in the U. S. in October, a 22.5% increase over September. October 2009 sales were an 11% improvement over October 2008. Hybrids accounted for just under 3% of the total new vehicle market in October.

Toyota is, once again, thinking about expanding the Prius line to include different models under the Prius badge, [Reuters](#) reports (Kelleher, 2009). Toyota has not decided yet and the idea seems to be controversial within the company. Previous news reports have included everything from one or two different styles of Prius to a separate Prius franchise. American Toyota executives interviewed for the Reuters story said they preferred additional Prius models, but not a new brand.

Toyota’s plan may not go forward if a small American company called Paice has its way, [The National Law Journal](#) reports (Greene, 2009). We’ve reported on this story before, but the Law Journal gives more detail about the dispute between Paice and Toyota. It seems that Toyota uses a key piece of Paice technology in its hybrid cars. Paice sued for patent infringement. In the original suit, the court awarded Paice \$25 per car. Both Paice and Toyota appealed. In the appeal Paice received \$98 per car. Still not satisfied, Paice is now suing Toyota at the International Trade Commission. The trade commission cannot award monetary damages, but it can restrict Toyota from importing the offending vehicle. In a suit before the Commission, the plaintiff has to show that their domestic industry has been damaged by the defendant. Toyota is claiming that since the plaintiff does not actually produce anything, their domestic industry is selling Toyota the patent rights and, thus, Toyota has not damaged Paice’s domestic industry.

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From the “Would you like fries with that Prius” department: Author and Journalism professor Michael Pollan recently made the statement at a conference that “A vegan in a Hummer has a lighter carbon footprint than a beef eater in a Prius,” Bradley Berman (2009) of *hybridCars.com* reported. Professor Pollan had to take back that statement, Mr. Berman also reported. It appears that the combination of beef and a Prius still has a lighter carbon footprint than veggies and a Hummer.

Just in case you were worried about being trapped in your third-generation Prius, *Fire Engineering* has issued the latest guidelines on extricating someone from the newest Prii (Emery, 2009). While there aren’t a lot of differences in the procedures between the new and older vehicles, one consideration rescue personnel must consider with the new Prius is the solar panel on the roof. Generally, it’s OK to cut through the solar panel, but care must be taken when cutting through the solar panel’s output wire. According to the article, even though the output wire is not a high voltage wire, it has a higher arc potential than a 12 volt wire.

U. S. News (2009) is among the media outlets running a story on a recent National Highway Traffic Safety Administration [study](#) that shows hybrid vehicles are more likely to run into pedestrians and bicyclists than ordinary automobiles. Some safety advocates say the reason for the accidents is that pedestrians have difficulty hearing the vehicle coming and can’t get out of the way. The ability of hybrids to run in “stealth” mode may be one reason why the U. S. Army has contracted with [Quantum Fuel Systems Technologies Worldwide, Inc.](#), to develop the Clandestine Extended Range Vehicle (PR Newswire, 2009).

ALTERNATIVE FUELS

International oil producer BP is planning to ramp-up production of various biofuels in the next few years, [Reuters](#) reports (Trompiz, 2009). Next year, BP plans to increase production of grass-based ethanol with partner Verenium. BP also wants to increase production of biobutanol made from wheat and other products. BP likes biobutanol because it is generally more efficient than ethanol and does not require as much equipment modification as ethanol does. Ethanol tends to corrode engines, while biobutanol does not. BP says the secret of alternative fuel production is to keep the production cost to about \$1 per gallon.

ASSORTED TECHNOLOGY

Mexico City and Nissan are gearing up for electric cars, China’s Xinhua News Agency reports in [China View](#). In its effort to clean up, one of the cities near the top of the World’s Most Polluted list, Mexico City is building recharging stations that resemble

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neighborhood gas stations, while Nissan will provide the recharging equipment (Tang, 2009).

Mexico City is not alone in trying to clean up with electric vehicles and charge points. [Herefordshire Council](#) (2009) in the United Kingdom, where almost 30% of the air pollution comes from transportation, is installing two charging stations. The Council will also provide electric cars for employees who use public transportation to use to run errands.

The Puget Sound area will receive \$100 million in a grant from the Federal Department of Energy to develop an electric vehicle corridor, [The Miami Herald](#) reported (Blumenthal, 2009). The grant will provide 1,000 electric vehicles and 2,000 charging stations in homes and businesses. A spokesman for the program says that one of the problems with electric vehicles is whether vehicle sales will drive charging infrastructure or if infrastructure will drive sales. Many drivers of electric vehicles prefer not to drive below a fifty percent charge, in fear that they will run out of electricity. As charging stations become more abundant, drivers will go to 15 to 20% of their capacity. The [Seattle Post-Intelligencer](#) also weighs-in on this story and says the grant provides 2,500 charging stations (Gutierrez, 2009).

The provincial government of Ontario, Canada, will begin issuing special license (or “licence” for you Canadians) plates for “green” vehicles, the [Toronto Star](#) (Vincent, 2009) reports. Only electric cars and plug-in hybrids are eligible for the plates, which authorize drivers to use HOV lanes and certain charging stations. Ontario believes the plates may help to stimulate the use of electric vehicles.

There has been a lot of chatter in the media about the power grid’s ability to handle the addition of electric vehicles. [Greentech Media](#) (St. John, 2009) reports that the Bay Area’s PG & E says the issue of what the grid can support is a local or regional issue. Some areas that PG & E serves, like Fresno, won’t get many electric vehicles to begin with. Other areas, like Berkeley, will receive electric vehicles because of their popularity there. On the other hand, Fresno, with its high demand for electricity for air-conditioning in the summer, would have difficulty supporting additional demands from charging, while cooler Berkeley* can absorb more demand.

Another area that has brought about a lot of chatter is Chrysler’s announcement that it is disbanding its electric car research section, “ENVI,” and rolling the engineers and designers into their regular automobile production teams, [The Detroit News](#) (Priddle, 2009) says. This does not mean that Chrysler is giving up on electric vehicles. The company still plans to introduce a new Ram pickup hybrid and an electric van in the next few years. Off the table is an electric sports car. While analysts implied that Chrysler

* By “cooler Berkeley” we are referring to the climate, not the culture.

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was scaling back on electric, it appears that they are integrating the technology across their vehicle lines rather than isolating it in a “showpiece.”



Gondola parking at the Hard Rock Cafe, Venice. Photo © Thomas L. R. Smith, 2009

As many of you know, the editor of this report recently spent some time in Italy on vacation. While there, we had the opportunity to observe several alternative forms of transportation. First, in Venice, was the human-powered gondola. For the princely sum of €30 (\$45) you can ride for about half an hour. Parking is not an issue. There is plenty of parking outside the Hard Rock Café.

If the gondola is not for you, maybe a motor scooter? The narrow streets of Renaissance Florence are crawling with scooters. These little vehicles share the streets with the thousands of pedestrians. And like the Venetian gondola, you can find parking almost anywhere.



Scooters along the Arno, Florence. Photo © Thomas L. R. Smith, 2009

If you're not up to paddling your own canoe, and you want something a little bigger than a scooter, Florence also had a lot of little two-seater electric cars. Like the scooter, these tiny cars shared the streets with pedestrians and it was easy to find parking.



Electric cars, Florence. Photo © Thomas L. R. Smith, 2009

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