



The Hybrid Vehicle and Alternative Fuel Report
 July 30, 2014

This report 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. At the end of the report is a list of all articles summarized, with hyperlinks to internet sources where available. Some hyperlinks may require free registration or paid subscriptions to access. *The Hybrid Vehicle and Alternative Fuel Report* (ISSN: 1946-1011) is compiled, written, and edited by Thomas L. R. Smith, Ph. D., Economic Analysis Branch of the Budget and Financial Analysis Division, Washington State Department of Transportation. Contact *The Hybrid Vehicle and Alternative Fuel Report's* editor at smithtm@wsdot.wa.gov or (360) 705-7941. Contributions of news items, original articles, and positive comments about *The Report* and cookies are welcome.

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HYBRIDS

Pennsylvania’s Lehigh and Northhampton Transportation Authority (LANTA) has 24 hybrid buses in its fleet of 83 buses, and plans to add 13 more hybrids, *The Morning Call* (Hartzell, July 13, 2014) called. Eventually, LANTA would like to have a fleet of nothing but hybrids. The hybrid buses cost \$200,000 more than regular buses; however, LANTA says that in fuel savings, alone, that difference is made up in nine years. The agency tends to keep buses in the fleet for 12 years or longer. For those concerned about battery life, the agency says the batteries were supposed to last for six years, but have been lasting much longer.

A brewery in Gloucestershire in England will begin delivering beer to its customers by hybrid truck, *Transport Engineer* (Cork, July 17, 2014) says. The brewery acquired a Fuso Canter hybrid delivery truck. The 7.5 ton vehicle is the largest in the brewery’s fleet. Under six mph, the vehicle runs on electricity, but over that speed, the truck uses a combination of electricity and diesel.

Reports from Europe say that Opel, General Motors’ European subsidiary is planning to discontinue the Ampera, Opel’s version of the Volt, *Automotive News Europe* (Colias, July 21, 2014) confides. Even though the Ampera was named European Car of the Year in 2012 by the people who name cars of the year, the car has not sold well in Europe. This just in: Opel confirmed that they will discontinue the Ampera in a report in *Automotive News Europe* (July 23, 2014), but also said that they will introduce a new electric car sometime between 2014 and 2018.

To encourage the purchase of “new-energy” vehicles, or hybrids, electric cars, and fuel-cell cars, the Chinese government is waiving a 10% tax on the vehicles, *Bloomberg* (Yang, July 23, 2014) says. China is taking this step to improve gasoline reserves, even though gas stocks have increased for three months in a row.

ELECTRIC VEHICLES

If you've been waiting for that "affordable" Tesla, the Model 3 goes on sale in 2017, *Forbes* (Chowdhry, July 16, 2014), said. The Model 3 will retail at \$35,000 and have a range of 200 miles. Tesla intends the car to compete with the BMW 3 series.

Tesla shut down its assembly plant in Fremont, California, *Automotive News* (Bloomberg, July 21, 2014) relayed. Tesla is reorganizing the assembly line so that it can produce more Models S and build the Model X on the same line. The Model X is billed as an SUV or a crossover, depending on the automotive analyst. Production is scheduled to restart on August 4. Tesla says that they will be able to increase production by 25% in the retooled plant.

Not to be outdone by Tesla, particularly Tesla's announcement that the company would make their patents open to everyone, BMW is offering to share lithium-ion battery technology, *The Car Connection* (Read, July 15, 2014), connects. Batteries are the most expensive part of an electric car, so it appears that BMW is hoping that by putting their batteries in more cars, they will reduce the price per battery. There is some belief in the company, that if BMW's batteries are spread throughout the industry, they could become the standard technology.

British Cabinet members will begin driving electric cars on official business, *The Telegraph* (Collins, July 17, 2014) sent. The Government Car Service, the organization that maintains the British Cabinet's vehicle fleet, will receive the first of 150 electric vehicles. Other government agency fleets will be asked to look at their fleets to see which vehicles can be traded for electric. The push is an attempt to have the Government demonstrate to the public the efficacy of electric vehicles.

The United Kingdom isn't the only country urging government officials to drive electric. China says that 30% of the cars bought by government agencies have to be electric, hybrid, or fuel-cell, Malaysia's *Driven Communications* (Tan, July 18, 2014) drives home. The government is also encouraging agencies to buy domestic electric cars.

The United States and China don't often agree on much, but the two countries signed a Memorandum of Understanding to work together on electric vehicle technology, *Smart Meters* (Tracy, July 17, 2014) measured. The two countries will also work together "to promote efficient industrial use of energy."

Buyers of Nissan Leaves in Los Angeles will get free charging at selected public charging stations for two years beginning in August, *Automotive News* (Burke, July 23, 2014) says. The "No Charge to Charge" program is already available in several cities since it was first introduced in Dallas and Houston in September 2013. The deal is available in San Francisco, San Diego, Seattle, Nashville, Phoenix, D. C., Portland, and

Sacramento. Nissan plans to add 14 other cities next year. Leaf buyers will get a card that lets them use ChargePoint, Blink, CarCharging, AeroVironment, and NRG eVgo chargers.

There is an interesting article in *Vox*, entitled “The rise of electric cars in the US, in 6 charts” (Plumer, July 28, 2014). While we recommend you take a look at the article, what caught our eye was chart seven, “Electric cars are only one reason US fuel economy is improving.” In fact, all those folks who think they need to charge electric car owners an additional fee to make up for the fuel tax they are not paying really need to look at this, because they will find that internal combustion engine technology, like variable valve timing, multi-valve engines, gasoline direct injection, and six speed transmissions, are making much more of an impact on fuel efficiency and, thus, tax receipts, than electric cars. Not that we are advocating a position, one way or the other.

ALTERNATIVE FUELS

Cummins has developed a medium-duty truck engine that runs on 85% ethanol (E85) and 15% gasoline, *Fleet Owner* (Cullen, July 15, 2014) says. According to Cummins, the engine produces cylinder pressure at diesel engine rates, giving the engine more torque. The manufacturer tested the engine for two and a half years and found the engine exceeds 50% in CO2 emissions reductions.

In every issue of *The Hybrid Report*, we list the newest electric vehicle charging stations. It may not be long before we start including hydrogen fueling stations, too. Meanwhile, *The Santa Rosa Press Democrat* (Brown, July 18, 2014) pressed that HyGen Industries will install a hydrogen fuel station at a 76 station in Rohnert Park as well as two others in undisclosed locations in Southern California. A total of 50 stations are planned for California over the next year.

The Canadian Renewable Fuels Association (CRFA), formerly the home of Corn Cob Bob,¹ is holding their 11th annual conference in Toronto, December 1 to December 3, 2014. There is a change in this year’s conference: CRFA is expanding speakers and topics and billing the conference as the first national Canadian Bioeconomy Conference. Fees for the conference range from \$200 for students and farmers to \$965 for non-members of CRFA. For more information, visit the Conference’s [website](#).



Corn Cob Bob

COMING TO A LOCATION NEAR YOU: The latest news on new charging stations which may or may not be somewhere close to you.

¹ Mr. Bob is missing. There are no longer references to Corn Cob bob on the Canadian Renewable Fuels Association Website.

United States: Brandywine Realty Trust in Malvern, Pennsylvania, is installing two level two charging stations at their office building, *Motor E Magazine* (SemaConnect and Brandywine Realty Trust, July 18, 2014) reports. The charging stations will be available to building tenants.

New charging stations will be required as part of new commercial construction, *The Tacoma News Tribune* (Santos, July 22, 2014) contributed. The City Council amended its building code to require between 1 and 3% of a new building's parking include chargers. The rules are effective on August 10.

Up to 150 new chargers are coming to businesses in New Jersey, if they take Public Service Electric & Gas (PSE&G) up on the Garden State's largest electric company's offer to provide free chargers, Newark's *The Star-Ledger* (Friedman, July 22, 2014) said. PSE&G wants to collect data on charger usage as part of the deal. The utility also wants participating businesses to agree to have five or more employees commute to work in electric vehicles for two years.

If you are headed to a Las Vegas casino, you don't have to gamble about car charging if you stay at one of the 13 Caesars' properties, *Market Watch* (PR Newswire, July 24, 2014) sees. In addition to providing car charging at Caesars' Nevada properties, their Harrah's Resort Southern California is also car-charger equipped. Caesars plans to install charger at all of its US properties, the next batch going into Harrah's properties in New Orleans, Philadelphia, Atlantic City, and Hammond, Louisiana.

Greensboro, North Carolina's² Piedmont Triad International Airport will have eight chargers soon, the *Triad Business Journal* (Arcieri, July 24, 2014) journaled. There will be no charge for charging and it will take eight hours to charge a car. The intent is to charge a car while the owner is on a trip.

Ohio's Wright State University, near Dayton, installed four charging stations, the *Fairborn Daily Herald* (Hannah, July 25, 2014) heralded. Two are near the Russ Engineering building, while the other two are at Allyn Hall. Charging is free, but users are limited to four hours.

Tesla owners have another location to charge, particularly if they are travelling on I-90 through Montana. The latest Tesla charger is at the Big Horn Resort near Billings, the *Missoulian* (Ferguson, July 27, 2014) mused. This is Montana's first charger.

Around the World: Electric car owners or visitors in Niagara, Canada, can charge their electric cars at Canada Tire in St. Catharines, *Bullet News* (July 16, 2014) fired. Canadian Tire plans to have chargers installed at all of its stores across Canada, making chargers available to 90% of Canada's population.

² Editor's hometown, 1958-59.

OTHER TECHNOLOGY

Zip.

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That is all.