

The Hybrid Vehicle and Alternative Fuel Report

April 30, 2015

The fine print: 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 articles 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, positive comments about *The Report*, and cookies are welcome. Please send cookies. And not the computer kind.

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HYBRIDS

In the United State, sales of hybrids and plug-in hybrids have been uninspiring as of late, while electric cars, even if they haven't actually risen to the same sales numbers as hybrids, have shown gains. In Europe, we hear a slightly different story. Even though *Automotive News Europe* (Gibbs, April 24, 2015) describes European sales growth as "sluggish," European analysts expect more growth in hybrids, with plug-in hybrids, which trail in the U. S. to become the dominant electrified drive train. Much of the reason for this is tighter European Union standards which lend support to electrification.

The Ford F-150 SuperCab Lariat with EcoBoost was named AAA greenest pickup truck in the 2015 edition of *AAA Green Car Guide*, *Work Truck Magazine* (April 22, 2015) manages. The truck gets 19 mpg in the city, 26 mpg on the highway, with a combined mpg of 22. Your mileage may vary. This vehicle has start-stop technology, which turns the gasoline engine off when the truck comes to a stop and quickly restarts the engine, when the driver presses the accelerator. While this is standard on hybrid cars, it is unusual in conventional vehicles. However, in the early days of hybrids, way back in 2005, a few manufacturers tried start-stop technology in vehicles and labeled them as "micro" or even mild hybrids.

ELECTRIC VEHICLES

Drivers near Stuttgart, Germany, can take electric vehicle driving lessons in a joint effort between Academy driver training schools and Daimler, *PC Magazine* (Poeter, April 13, 2015) says. The training not only qualifies students to take the test for a standard German drivers' license, but also qualifies students for the eDriverLicense exam, which allows drivers to sign up for the car2go car sharing program.

While other states are either dismantling or reducing their electric vehicle incentive programs, Massachusetts is extending theirs, the [Executive Office of Energy and Environmental Affairs](#) (April 2, 2015) announced. Governor Baker announced that \$2 million is available for rebates of up to \$2,500 for purchase or lease of electric vehicles.

To encourage more electric vehicles and cut greenhouse gas emissions, the Mayor of Montreal announced that Montreal plans to have 250 electric vehicles in a car sharing program by next year and 1,000 vehicles by 2020, [Treehugger](#) (Richard, April 15, 2015) reported. Currently, the car sharing service that services Montreal, Communauto, has 40 electric cars. Communauto will add 20 more community autos by summer.

Amsterdam plans to become the first city in the Netherlands to have a fully electric bus fleet, [Dutch News](#) (April 15, 2015) notes. The city council signed an agreement with the city's bus operator GVB to convert to the fleet by 2025. The plan calls for 40 electric buses in the next two years.

Hawaii Energy and home charging station provider OpConnect are working together to test a program that encourages electric car chargers to charge electric cars during the hours of 9 AM to 2 PM, [OpConnect](#) said in press release (Isaacs, April 15, 2015). Participants in the program can get a 60% discount during the pilot program by charging during the day rather than 5 to 9 PM, when most people charge. The pilot runs until May 31 or until funding runs out. The sponsors of the program want to see what it would take to shift car charging to off peak hours.

The New York State Energy Research and Development Authority (NYSERDA) launched its new Electric Vehicle [Website](#) as part of its ChargeNY program, *Hybrid Report* subscriber and NYSERDA employee Joseph D. Tario tells *The Hybrid Report*. The website provides New York residents with a wealth of information about electric vehicles, fleet planning, and charging station locations. Organizations and cities that want to plan for electric fleets or providing charging facilities will find guides at the website. Even folks who live outside of New York will find useful information there.

A number of news outlets are telling us that Edmunds data shows that 22% of electric car owners who traded in cars in the first quarter of 2015, traded them in for SUVs (Ziegler, [The Verge](#), April 21, 2015). While it is tempting to point out that the other 88% traded their electric cars for other electric cars, this does represent a growing number of people trading for non-electric. In the first quarter of 2014, only 18.8% of the traders traded for non-electric, while it was 12% three years ago. But John Voelcker (April 23, 2014) of [Green Car Reports](#) advises approaching these statistics with caution. Mr. Voelcker points out that, first, Edmunds does not distinguish between electric cars, plug-in hybrids, or hybrids in these figures. They lump the types of vehicles together and this can be misleading. Next, he points out that Edmunds data, or at least the data released, does not actually show that electric car (a) is traded for SUV (b). They are

merely using correlation and then claiming cause and effect. According to careful consideration of the data, Mr. Voelcker says that, for the most part, electric car sales do not fluctuate when gas prices change. This, of course, was also true in the early days of hybrid sales. Now, hybrid sales do fluctuate. The bottom line: take these figures with a grain or two of salt.

By passing one bill, the State of Georgia¹ went from having one of the most generous electric vehicle incentive programs in the United States to, perhaps, the stingiest. House Bill 170, the [Transportation Funding Act of 2015](#) eliminated the electric vehicle income tax credit of up to \$5,000 and imposed an extra fee of \$200 year on electric vehicles. The bill passed on April 6, 2015 and is now on the Governor's Desk awaiting signature. Governor Nathan Deal is expected to sign. The credit will end on June 30, 2015, and the \$200 fee will go into effect on July 1, 2015. Georgia's electric vehicle tax credit has been in place since 1998 and is largely credited with pushing Georgia into the top five states for electric vehicle sales and Atlanta in to the number two spot for cities.

For just \$34,000, you can become the owner of an Energica Motor Company EGO electric motorcycle, [Charged Electric Vehicles Magazine](#) (Morris, April 24, 2015) says. The motor cycle was approved for sale by the National Highway Transportation Safety Administration and the Environmental Protection Agency. Delivery is scheduled for the third quarter of this year, but the manufacturer has almost sold out already on preorders. The motorcycle gets 150 mph top speed and has a range of 93 miles at an average speed of 50 mph or 124 miles at 37 mph.

Most public charging stations are free to the public, [Charged Electric Vehicles Magazine](#) (Ruoff, April 29, 2015) reported. According to a report from PlugShare, 63% of the charging stations available to the public offer free charging. Restricted access stations, stations available only to employees, are free at 76% of the locations.

Norway's electric vehicle incentives now pass European Union muster, [News in English](#) (Berglund, April 21, 2015) spoke. The European Free Trade Association's Surveillance Authority announced that Norway's incentives did not give electric vehicles an unfair advantage over conventional vehicles in light of the environmental benefits. Electric cars are very popular in Norway, with 50,000 sold. One quarter of Norway's new car sales are electric. Norse officials will re-evaluate the incentives since the 50,000th vehicle was sold this week, and Public Transportation officials complain that electric vehicles are crowding out transit and bus lanes.

ALTERNATIVE FUELS

There are no alternatives.

¹ Editor's former home state, 1961-1972.

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

United States: New Mexico has new chargers, *Albuquerque Business First* (English, April 14, 2015) fires. The chargers, installed by Public Services Company of New Mexico, are in Albuquerque's Winrock Mall, Firehouse Subs and O'Neill's Pub. Corrales also has a charger at Freddy's Frozen Custard and Steakburgers, while Sante Fe has a charger at the San Isidro Shopping Plaza. The chargers were funded with help from Nissan.

Three free solar powered charging stations have come to San Francisco, *CNET* (Cunningham, April 17, 2015) says. The chargers, established by Charge Across Town, were made possible by a grant from an organization called the 11th Hour Project. The chargers are at Stonestown Galleria Mall, a public parking lot on the Embarcadero, and a car sharing lot on 17th and Shotwell. The portable charging stations will be available through 2015.

With the opening of the electric charging station in Brookings, *Oregon Department of Transportation* (April 20, 2015) declared its portion of the West Coast Electric Highway complete. The final station has two chargers, a level 2, and a DC fast charger. It's located in the Fred Meyer parking lot at the intersection of 5th Street and US 101. Oregon's portion of the West Coast Electric Highway has 44 charging locations on US 101, Interstate 5, and connecting roads between the parallel highways. Intrepid Public Radio Regional Correspondent and *Hybrid Report* Subscriber Tom Banse provided The Hybrid Report with this press release. Mr. Banse also recently completed the drive from Portland to Brookings in an electric car. We wait anxiously for his report.

The Suffolk County Community College opened two charging stations at the college's Eastern Campus in Riverhead, New York, just north of P. G. Wodehouse's Remsenburg, Long Island, home, the *Riverhead Local* (April 22, 2015) says. The charger is part of the ChargePoint Network and is open to the public. Suffolk Community College will install chargers at the Selden and Brentwood campuses later this year.

Yogi Bear can charge his electric car at one of six charging stations while stealing pic-a-nic baskets at Yellowstone and Grand Teton National Parks thanks to a grant from the Yellowstone-Teton Clean Energy Coalition, *Sweetwater Now* (Yellowstone-Teton Clean Energy Coalition, April 26, 2015) notes. The grant will also provide Ranger Smith a plug-in hybrid to use to pursue Yogi.

While Yogi was noticeably absent, Rangers at Zion National Park and Pipe Spring National Monument opened two level two charging stations at Kolob Canyon Visitor Center, *The Spectrum* (DeMille, April 26, 2015) disseminated. Eventually, the two recreation areas will have a total of 10 charging stations. Zion National Park also

bought two plug-in hybrid vehicles as part of the same initiative. There was no word on the type or brand of vehicles.

Madonna Inn in San Luis Obispo County, California, will be the site of an electric vehicle charging hub, *The San Luis Obispo Tribune* (Hickey, April 27, 2015) tries. Sunspeed Enterprises is adding chargers to its so-called Sun Trail Route along the Pacific Coast Highway. There will be a total of four chargers.

Around the World: Sorry, but nothing happens anywhere but here.

OTHER TECHNOLOGY

A paper by The International Council on Clean Transportation outlines the potential for various new technologies to reduce fuel usage and greenhouse gasses (GHG) in tractor-trailers. Among some of the interesting things we learn in *Advanced Tractor-Trailer Efficiency Technology Potential in the 2020-2030 Timeframe* (Delgado & Lutsey, April 2015), is that tractor-trailers, which are only 2% the US vehicle fleet, account for 20% of fuel usage and GHG emissions (p. 1). We also learn that even though these vehicles get 6 miles to the gallon, a number that hasn't changed in decades, technology exists to get double the mileage on these trucks between now and 2030.

Anytime one proposes changes like those above, fleet managers ask themselves, "Self, how much will this cost?" Do not fear, the good people at The International Council on Clean Transportation evaluated the costs of adoption for the technological advances in their paper above in a second paper entitled *Cost Effectiveness of Advanced Efficiency Technologies for Long-haul Tractor-Trailers in the 2020-2030 Timeframe* (Meszler, Lutsey, & Delgado, April 2015). The news is good. Existing technology, which can get long-haul trucks to 9 mpg, can pay for itself in less than a year. To double fuel economy requires an 18 month payback period.

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That is all.