



# The Hybrid Vehicle and Alternative Fuel Report

August 30, 2016

**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. (hereinafter referred to as "The Editor"), 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](mailto:smithtm@wsdot.wa.gov) or (360) 705-7941. Contributions of news items, original articles, cookies, and positive comments about *The Report* are welcome.

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## HYBRIDS

In the last issue of the hybrid report we relayed a report from [Insider Car News](#) (Symes, August 12, 2016) that implied Chevy Volt has not had a battery failure and a plant built to provide replacement batteries has remained idle. Georgina Willner, a *Report* subscriber, WSDOT employee, and Volt owner has notified us that her first-generation Volt had to have the battery pack replaced in its first few months, and recently had to have another section of the battery pack replaced. The battery replacement, in both cases was under warranty. Other than that, Ms. Willner's experience with the Volt has been positive. She tells us the car is fun to drive and she's only used 64.6 gallons of gas to go 50,000 in 5 years. That's 773.994 miles per gallon. It's still possible that the *Insider Car News* article is technically correct and that Chevrolet has been able to replace batteries out of existing stocks, rather than activating the replacement battery factory. The real point of the original story and this follow-up is that one of the sticking points that prevent hybrid and electric vehicles from being mainstream is the belief held by much of the car-buying public that the batteries will wear out and cost the owner an arm, leg, or both to replace them. That simply has not been the case. And when it is, the batteries have generally failed during the warranty period. Or, in the case of a friend of mine, failed after 240,000 miles on a 2004 Prius. In this anecdotal experience, the cost of the replacement of the batteries was about the same as replacing a transmission in a conventional vehicle. Rather than replace the batteries, my friend bought a brand new 2016 Prius.

Denali National Park in Alaska put two hydraulic hybrid shuttle buses into service, [BizWest](#) (Heltzell, August 16, 2016) writes. The Chevrolet and Freightliner buses were converted by Lightning Hybrids in Colorado. They will shuttle passengers along the paved part of Denali Park Road. Another Federal agency, the Department of Energy's National Renewable Energy Laboratory (NREL) in Golden, Colorado, also inaugurated hydraulic hybrid shuttles made by the same company as the Denali buses, [Government Fleet](#) (August 17, 2016) says. In both cases, the use of the hybrids is to comply with President Obama's policy to reduce Federal fleet emissions.

Natural Resources Canada was supposed to embrace electric cars by swapping the Minister's Chrysler 300 with an electric, [CBC News](#) (Beeby, August 18, 2016) notes. That plan fell through because there was not a charging station at the Ministry or House of Commons in Ottawa. Apparently, the budget for the car did not include enough for a charger. Instead, the agency replaced the Chrysler with a Toyota RAV4 hybrid.

## ELECTRIC VEHICLES

The City of Atlanta<sup>1</sup> assigned five electric cars as police and emergency vehicles to patrol the city's Beltline, the [Atlanta Journal Constitution](#) (Ibata, August 16, 2016) journaled. The Beltline is a system of railroad tracks that have been converted to bike paths and trails. The electric vehicles are neighborhood electric vehicles which were assigned to the PATH Force of the Atlanta Police Department, Atlanta Fire and Rescue, and Parks and Recreation.

Out in Atlanta's suburbs, Cobb County's Fire and Emergency Services put seven Nissan Leaves into service, the [Atlanta Journal Constitution](#) (Cunningham, August 24, 2016) reported. The Fire Marshall and Special Operations division will use the vehicles, indubitably for marshalling fires and specially operating. The fire fighters expect to save \$173,000 over some undetermined time-frame while reducing carbon emissions by 445,200 pounds.

In 2011, AAA inaugurated roadside assistance recharging trucks for members who own electric cars. [GAS2](#) (Hanley, August 22, 2016) says that the recharging trucks are hardly used because electric car drivers routinely leave a reserve to ensure they don't run out of electrons. It seems that electric car drivers are a little more attentive to their range than conventional car drivers. AAA says that out of 32 million service calls, about 16 million are to bring gas to stranded motorists, while electric car recharging calls only run in the thousands. Of course, there aren't as many electric cars, you say. And being the data wonks that we are,<sup>2</sup> we would really like to have more numbers to analyze on this story, like the number of gasoline cars members own compared to electric cars, and the number of charging service calls. Nevertheless, AAA's experience is that electric car drivers are more aware of their fuel levels.

Thailand's state-owned energy company, PTT, has entered into agreements with six international automotive companies to develop electric cars and a charging network for Thailand, [Reuters](#) (Jittapong & Dhanananphorn, August 15, 2016) reports. BMW, Mercedes, Mitsubishi, Nissan, Porsche, and Volvo will develop electric cars, while PTT will develop a network of charging stations.

North Cowichan, on Canada's Vancouver Island, added two electric vehicles to its fleet, the [Cowichan Valley Citizen](#) (August 21, 2016) cited. The two vehicles of an unknown brand<sup>3</sup> should help North Cowichan meet its goal of reducing greenhouse gas emissions by 33% over the lives of the vehicles. The municipality also estimates it will

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<sup>1</sup> Editor's former hometown, June 1961-June 1972.

<sup>2</sup> We're thinking a little Chi-squared testing would be appropriate.

<sup>3</sup> From the photo included with the article, one of the vehicles appears to be a Ford.

save \$6,000 in fuel costs and reduce emissions by 14 tonnes of carbon and reduce maintenance costs by \$8,000 per year.

## ALTERNATIVE FUELS

New York City will experiment with renewable diesel in several departments during 2017, [Government Fleet](#) (August 19, 2016) floats. The shift to renewable fuel is part of Hizzoner the Mayor's drive to cut the city's emission of city vehicles by 80% by 2035.

**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:** The Harry F. Byrd Visitor Center at Big Meadows<sup>4</sup> on Virginia's Skyline Drive has a new level 2 charger, [Augusta Free Press](#) (August 15, 2016) pressed freely. The visitor center is at Milepost 51.

Nevada State employees have a new charging station at the Richard H. Bryan government building in Carson City, the [Nevada Appeal](#) (August 25, 2016) says. The chargers are available to the public as well. Nevada will install a charger at Las Vegas's Grant Sawyer building by the end of the year.

**Around the World:** "Come with me to the Casbah:"<sup>5</sup>Sharjah, one of the emirates of the United Arab Emirates, has two new charging stations at Al Qasba<sup>6</sup>, a shopping and entertainment area, [Emirates 24/7](#) (August 16, 2016) says. The chargers are at Block A and D of Al Qasba's parking lot.

## OTHER TECHNOLOGY

Nope. No other technology exists.

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<sup>4</sup> Where Dr. and Ms. *Hybrid Report* Editor spent their honeymoon way back in 1975.

<sup>5</sup> This quote did not come from the 1938 movie *Algiers*, starring Charles Boyer and Hedy Lamarr. According to AMC Filmsite's [Greatest Film Misquotes](#), it may have originated with Boyer's press agent. It may have also been delivered for the first time on screen by Warner Brothers' Pepe LePew.

<sup>6</sup> Read, "The Casbah"

**More fine print:** *The Hybrid Vehicle and Alternative Fuel Report* (ISSN: 1946-1011) is not responsible for hyperlinks that do not work or are inactive. All links worked when created; however, many news outlets archive or move reports soon after publication, so it's not our problem that you can't get to the cited article so don't call or email to complain. It will be much like trying to teaching a pig to sing: it will waste your time and irritate the pig. 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 (WSDOT), my wife, or my cat (especially not my cat, who has no sense of humor. She's a cat). Except as otherwise noted, WSDOT holds the copyright to *The Hybrid Report*. Photos and other artwork in *The Report* are included with express permission of the copyright holders of those works or the work is in the public domain. Further reproduction or distribution of copyrighted material is not authorized without permission of the original copyright holder. Merely acknowledging the source is not always sufficient and does not excuse reproducing copyrighted material without permission. It's not that hard to ask for and get permission. Use only as directed; batteries not included. In the interest of full disclosure, the editor of this summary drives a Lexus NX 300h hybrid, while Mrs. *Hybrid Report* Editor drives a Lexus HS 250h hybrid. We are not saying you should get either one, but they are very nice.

## ARTICLES REFERENCED

- Augusta Free Press*. 2016, August 15. Electric Vehicle charging station installed at Shenandoah National Park. Retrieved: <http://augustafreepress.com/electric-vehicle-charging-station-installed-shenandoah-national-park/>
- Beeby, D. 2016, August 18. Electric-vehicle plan hits roadblock at minister's office. *CBC News*. Retrieved: <http://www.cbc.ca/news/politics/electric-car-hybrid-natural-resources-liberal-campaign-promise-charging-station-1.3725370>
- Cowichan Valley Citizen*. 2016, August 26. North Cowichan adds electric cars to fleet. Retrieved: <http://www.cowichanvalleycitizen.com/news/391345091.html>
- Cunningham, C. 2016, August 24. Cobb adds more electric vehicles to fire fleet. *Atlanta Journal Constitution*. Retrieved: <http://www.ajc.com/news/news/local/cobb-adds-more-electric-vehicles-to-fire-fleet/nsLQd/>
- Emirates 24/7*. 2016, August 16. Sharjah gets first electric vehicle charging stations. Retrieved: <http://www.emirates247.com/business/economy-finance/sharjah-gets-first-electric-vehicle-charging-stations-2016-08-16-1.639282>
- Government Fleet*. 2016, August 17. Feds Add Hybrids to Two Fleets for Sustainability. Retrieved: [http://www.government-fleet.com/news/story/2016/08/alaska-national-park-adds-hybrid-vehicles.aspx?utm\\_campaign=enews-monday-new-20160822&utm\\_medium=Enewsletter&utm\\_source=Email](http://www.government-fleet.com/news/story/2016/08/alaska-national-park-adds-hybrid-vehicles.aspx?utm_campaign=enews-monday-new-20160822&utm_medium=Enewsletter&utm_source=Email)
- Government Fleet*. 2016, August 19. NYC to Test Renewable Diesel. Retrieved: [http://www.government-fleet.com/news/story/2016/08/nyc-to-test-renewable-diesel.aspx?utm\\_campaign=enews-monday-new-20160822&utm\\_medium=Enewsletter&utm\\_source=Email](http://www.government-fleet.com/news/story/2016/08/nyc-to-test-renewable-diesel.aspx?utm_campaign=enews-monday-new-20160822&utm_medium=Enewsletter&utm_source=Email)
- Hanley, S. 2016, August 22. AAA Electric Car Recharging Trucks Seldom Used. *GAS2*. Retrieved: <http://gas2.org/2016/08/22/aaa-electric-car-recharging-trucks-seldom-used/>

Heltzell, D. 2016, August 16. Lightning Hybrids buses to transport Denali National Park visitors. *BizWest*. Retrieved: <http://bizwest.com/lightning-hybrids-buses-transport-denali-national-park-visitors/>

Ibata, D. 2016, August 16. Atlanta assigns electric vehicles to Beltline responders. *Atlanta Journal Constitution*. Retrieved: <http://www.ajc.com/news/news/local/atlanta-assigns-electric-vehicles-to-beltline-resp/nsGm3/>

Jittapong, K.; and Dhanananphorn, M. 2016, August 15. Thailand's PTT in with 6 automakers to develop electric car sector. *Reuters*. Retrieved: <http://www.reuters.com/article/ptt-electric-car-idUSL3N1AW1JG>

*Nevada Appeal*. 2016, August 25. Charging station for electric cars installed. Retrieved: <http://www.nevadaappeal.com/news/local/23608308-113/charging-station-for-electric-cars-installed>

Symes, S. 2016, August 12. Chevy Has Replaced Zero Volt Batteries. *Insider Car News*. Retrieved: <http://www.insidercarnews.com/chevy-has-replaced-zero-volt-batteries/>

***That'll do.***