HYBRIDS

Even though 91% of Toyota’s used hybrid batteries are collected and recycled, Toyota does not think that’s good enough. Great Britain’s Chartered Institute of Wastes Management’s Journal (Moore, February 14, 2014) says that Toyota wants to collect 100% of their used batteries. It recently set up a program in Europe to collect batteries from Toyota and Lexus dealers and independent repair shops. Even after the batteries are no longer useful for powering electric cars, they still have life in them and can be utilized for other things. As an interesting side note, when we first began covering hybrid vehicles almost ten years ago a big concern about hybrids was battery life and the expense of replacing batteries. People worried that they may have to go to great expense to replace the batteries after four or five years. To reduce those fears, hybrid car makers offered extend warranties of eight to ten years for the batteries. This article explains, however, that hybrid batteries are outliving the cars they are installed in and most of the battery recycling occurs after the cars are junked or after accidents.

Lasell College in Newton, Massachusetts, converted passenger vans and a shuttle bus into hybrid vehicles, NGT News (February 23, 2015) noted. XL Hybrids converted an unknown number of vans for the College using funds from the Massachusetts Clean Cities initiative. The College should see gas mileage increase by 25% and carbon dioxide decrease by 20%.

Right here in Washington State, King County Metro’s fleet of nine Vashon Island buses will be converted to hybrid buses, the Vashon-Maury Island Beachcomber (Martin, February 24, 2015) collects. King County has been replacing their fleet with hybrids for the last 10 years, so now it’s Vashon Island’s turn. Vashon’s buses will be on routes in March. King County has the largest hybrid bus fleet in the Nation.
More than you ever wanted to know: The U. S. Department of Energy has just released the Clean Cities 2015 Vehicle Buyer’s Guide. It provides a ton of information you can use to shop for the alternative vehicle of your choice, from electric to hybrid to propane to biodiesel. In addition to explain various measures you can use to compare vehicles, the guide also provides information on driving range, greenhouse gas scores, and fuel economy. Tonya Buell of WSDOT’s Public/Private Partnership Office provided us with the link to this publication.

ELECTRIC VEHICLES

A nonscientific poll conducted by the Portland Business Journal (Giegerich, February 12, 2015) found that the biggest reason why people don’t buy electric vehicles is that they want greater range. Twenty-eight percent of the people polled said the limited range keeps them from going electric. The next biggest reason was cost, with 23% of the respondents saying electric vehicles cost too much. Farther (or further) down on the list was charging station speed and availability.

In the last issue of The Hybrid Report, we reported on rumors that Apple is working on an electric car and is hiring automotive design experts. Apple is now accused of poaching battery engineers from battery maker A123 Systems, the San Jose Mercury News (Associated Press, February 19, 2015) notes. A123 filed suit in the Federal District Court in Boston accuses Apple of hiring A123 techs in violation of the former employees’ nondisclosure and noncompetition agreements. In the lawsuit, which was also filed in Massachusetts Superior Court for Middlesex County, A123 accuses Apple of trying to set up a battery company in direct competition with A123 using poached employees and A123 trade secrets (A123 Systems LLC v. Apple Inc. et al.).

A123 is not the only company whose employees Apple has courted. Elon Musk, Tesla’s CEO, told Bloomberg Business (Higgins, February 19, 2015) that Apple was offering Tesla employees 60% raises and quarter-million dollar signing bonuses. As the rumors circulate, there is speculation that the Apple iCar will be on the market in 2020, however, other automotive experts says that may not be enough time. A company in the auto business takes about five years to introduce a new model; however, starting from scratch takes about ten years. Nevertheless, Apple has money to burn with $178 billion in cash and is under pressure to return money to stockholders or find other development opportunities for their pile of cash.¹

One of Apple’s main competitors in the phone business is pushing deeper into the electric vehicle business, too, Venture Beat (Sawers, February 23, 2015) sounds. Samsung recently bought the battery division of Magna International. Samsung has been

¹ In the interest of full disclosure, the editor is an Apple shareholder.
working in car batteries since 2009, but Samsung says this deal will solidify their lead in the electric car battery business.

Scientists at Carnegie Mellon University have studied electric cars and determined that the best place to drive them is on the West Coast and in the Southeastern United States, Science Magazine (Akpan, February 20, 2015) mentions. The Carnegie Mellon masters looked at performance data from 7,000 Nissan Leaves to find out how the cars performed in various weather conditions around the country. They found that Leaves in cold parts of the country did not hold their charges long and had to be recharged more often. Extreme heat did not help, either. While batteries do operate a little better in warmer temperatures, they have shorter life spans, making the cars less efficient. The range of a Nissan Leaf drops from 112 kilometers (69.59 miles) in San Francisco to 72 kilometers (44.74 miles) in Minneapolis. Western Washington is in that part of the country that has the highest efficiency.

*The Economist* explains it all: According to *The Economist*, a newspaper that looks surprisingly like a magazine, the current spate of low gas prices is not having a huge impact on the popularity of electric cars and future gas prices won’t either. The reason prices won’t have an impact on their popularity, is that the cars are not particularly popular at the moment anyway. Electric cars, while they may save a buck or two in gas (OK, a bunch of bucks), they are still pretty expensive and the people who buy them aren’t looking for the discount ride. Electric cars appeal to people who want to make a statement about their green credentials. They may well be an example of a Veblen good as well. Demand for Veblen goods increase as the price goes up. Finally, *The Economist* says that the battery system of electric cars account for half their price. It will take a break-through in battery technology that will move electric cars into the mass market, not gas prices.

To encourage fleets to test out electric vehicles, British companies Alphabet and EDF Energy have introduced a program where fleet managers can lease chargers for up to three months for testing, Business Car Manager (Mountford, February 26, 2015) manages. The AlphaElectric chargers are designed so they can be installed and removed easily. The companies hope that giving fleets the opportunity to try out electric vehicles and charging before they commit to purchasing them, more electric vehicles will find their way into fleets.

**ALTERNATIVE FUELS**

Ryder rents natural gas trucks. It rents, or rather leases them, to fleet operators. The company just opened an online training program for its 6,000 maintenance people, Transport Topics (February 20, 2015) says. Ryder has 260 trained natural gas techs at 14 maintenance facilities around the country. Ryder expects more natural gas trucking and plans to train employees in “all natural gas vehicle configurations and platforms.”
Toyota uses a crew of thirteen people to build three hydrogen-powered Mirai automobiles each day, *The Wall Street Journal* (Kubota, February 24, 2015) journals. The cars are assembled by hand. Toyota plans on making 700 of the hydrogen vehicles this year, 2,000 next year, and 3,000 the year after that.

**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:** Temple Terrace in Florida’s Tampa Bay area is getting a network of fast chargers, the *Tampa Bay Times* (Morgan, February 12, 2015) tells. The first of seven chargers was installed at the Outback Steakhouse across from City Hall and will be open by the end of February. The other six should be ready by the end of March, but exact locations are unknown.

The new rule on Hilton Head Island in South Carolina is every new multifamily and nonresidential building will include a charging station within 100 feet of the building’s main entrance, *The State* (Murdock, February 20, 2015) stated. No other town or city in South Carolina has such a rule. There are only a handful of chargers on around Hilton Head.

Suwanee, Georgia², will install a charging station near City Hall on Savannah Square Street, *Access North Georgia* (Stewart, February 24, 2014) ascertains. The two-car charging station should be available by July.

**Around the World:** Every summer when you rent a cottage in the Isle of Wight (if it’s not too dear)³ you have a new place to charge your electric car. Quay⁴ Street car park in Ryde just opened a fast charging station, the *Island Echo* (February 11, 2015) repeated. It costs about $6.85 to charge for four hours, but bring £4, because the Isle of Wight is in England.

**OTHER TECHNOLOGY**

While aluminum is not such a new technology since it’s been around for a long time in the aircraft industry, it’s new enough in the automotive industry that Ford is training 8,000 production people at the Kansas City Assembly and Dearborn Truck Plant to work with aluminum for the F-150 pickup truck, *Work Truck Magazine* (February 24, 2015) tracks. Workers will spend 400 hours in training in the classroom and shop floor. The workers will also learn how to put together the high-tech computer and electrical system for the truck. Ford plans to make 700,000 aluminum F-150s each year.

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² Which is about 300 miles from the river of the same name. Well almost, the river has two ‘n’s.
⁴ Pronounced “Key.”
ARTICLES REFERENCED


*That is all.*