

## PLUG-IN PAYBACK: TURNING YOUR GARAGE INTO A POWER SUBSTATION

Interested in getting a \$1,500 check from your power company at the end of each year? Just buy a plug-in car. US power grid chief Jon Wellinghoff, chairman of the Federal Energy Regulatory Commission, said plug-in owners who connect their batteries to the grid could be getting those kind of sweet deals. Power companies would pay plug-in owners for the additional storage lent to the nation's electric power grid when the vehicles are connected. Some think buyers won't want to pay the higher cost to purchase plug-ins. But combined with their low costs for filling up at the pump, checks from the electric grid would allow owners to recoup their up-front costs even faster. Power companies clearly see plug-ins as part of the future, as several companies announced that their fleets will be all plug-in or electric vehicles by 2020. Google is looking into developing software to manage integration of plug-ins with the electric grid to achieve optimal efficiency.

## THE 2009 CAPITOL CHRISTMAS TREE

The Christmas tree displayed at the US Capitol this holiday season was cut in the Apache-Sitgreaves National Forest in northern Arizona, and delivered to the Capitol in a truck running on a cleaner-burning fuel. For the first time in history, the Capitol Christmas Tree was delivered using a blend of biodiesel known as B5. "We chose this blend of biodiesel due to some of the climate changes the trip (took)," said Colleen Crowninshield, Manager of the Clean Cities Program for the Pima Association of Governments. She explained that the route included cold climates. The trucking company, Southwest Industrial Rigging, had not used cleaner burning biodiesel prior. To ensure their trucks would run smoothly, they chose a low blend of biodiesel to avoid clogged fuel filters, which sometimes occur in the first steps of biodiesel use due to its solvent nature. They used a cleaner, less petroleum-dependent fuel source for the final ride to the steps of the US Capitol.

## AUTOMAKERS BACK HIGHER MPG

As much as they initially fought it, automakers now say they can meet new fuel economy standards. The thought of having to deal with individual state regulations drove them to prefer complying with a single strengthened federal standard. The US Department of Transportation and EPA have been holding public hearings to get feedback on proposed annual benchmarks to meet the 35.5-MPG-by-2016 standard set forth by the Obama administration, and automakers are roundly supportive of the program.

## RENAULT-NISSAN AND BARCELONA PROMOTE ZERO-EMISSION MOBILITY

The Renault-Nissan Alliance and the city of Barcelona signed a Memorandum of Understanding (MOU) to promote the development of zero-emission mobility in the Catalan capital. The two organizations will work together to identify areas of cooperation in promoting the use of zero emission vehicles in the city. Barcelona has made environmental sustainability a key policy initiative through the use of renewable sources of energy and the reduction of CO<sub>2</sub> emissions. Last year, Barcelona made public its plans to implement a sustainable mobility program by creating the necessary conditions to make electric vehicles an alternative to traditional means of transportation. The scheme includes tax breaks for EV buyers, as well as dedicated EV-only zones and parking spaces. The plan also calls for the establishment of 191 charging points across the city by 2011. At the recent Frankfurt motor show, Renault revealed four innovative electric vehicles that will enter the market between 2011 and 2013. In August, Nissan revealed the LEAF, a medium-size hatchback that will be launched in late 2010 in Japan, the United States and Europe. The Renault Nissan Alliance, founded in 1999, sold 6,090,304 vehicles in 2008. The objective of the Alliance is to rank among the world's top three vehicle manufacturers in terms of quality, technology and profitability. Marking its tenth anniversary this year, the Renault-Nissan Alliance is

leading a collaborative approach with business and governments and has signed nearly 30 agreements with partners worldwide to launch its first electric vehicle starting in 2010 and to mass market a full range of electrical vehicles in 2012.

## GREEN EARTH G-OIL AT AAPEX

Green Earth Technologies, maker of environmentally safe consumer products, presented their third consecutive showcase at the AAPEX Show in Las Vegas in November. In the previous two years, Green Earth previewed G-OIL® Ultimate Biodegradable motor oils and other environmentally friendly automotive products at AAPEX, the world's largest business-to-business automotive aftermarket event. A G-OIL SAE 5W-30 is now available nationally, passing all the engine test criteria for American Petroleum Institute (API) SM Certification, the first and only bio-based motor oil to do so. G-OIL is priced comparatively to synthetics and similarly performing products. Unlike traditional petrochemical-based motor oils, Green Earth's G-OIL is made with American-grown renewable animal fats. These saturated fats, whose molecular single-bond carbon chains are similar to common petroleum oils, have no harsh effects on the environment, and drastically cut dependence on foreign oil. In the past year, G-OIL also became the official motor oil of The American Le Mans series.

Green Earth Technologies' GREEN MACHINE is a portable 1400 PSI pressure washer designed for cars and trucks specially equipped with the G-CLEAN High Pressure Detergent Injector to accommodate environmentally friendly washing using GET's ultimate biodegradable dissolvable detergent pouches, made with American-grown plant base oils. The dissolvable detergents go through the pump and clean at high pressure while conditioning and lubricating the pump, so no reclamation necessary while cleaning on the road.

## YOKOHAMA ORANGE-OIL RACE TIRES CRUISE TO 1-2 VICTORY

Yokohama Tire Corporation's eco-friendly race tire, the orange oil-infused ADVAN® ENV-R1™, captured first and second place in the 25 Hours of Thunderhill endurance race, December 4-5 at Thunderhill Raceway in Willow, California. Both winning entries were Porsche GT3 Cup cars. The Mercer Motorsports team took the checkered flag in 24:50.29 (761 laps, 2,432 miles) with the Ehret Winery team placing second in 24:51.53 (739 laps).

"The Yokohama tires were fantastic," said Johannes van Overbeek, one of five Mercer drivers who piloted the GT3 Porsche to victory. "They were consistent and durable. We never got a puncture, which is critical in winning an endurance race. What really impressed me was how it adapted to the wide range of temperatures. The temperature at night was 20 degrees and during the day it was 63. The tires worked extremely well in that huge range, and a lot of tires don't do that."

Yokohama has developed a process that combines orange oil with natural rubber to form a new compound called "Super Nano-Power Rubber™." In the ADVAN ENV-R1, the first tire to utilize sustainable tire technology in automobile racing history as the spec tire in the 2009 Patrón GT3 Challenge by Yokohama, the proprietary technology reduces petroleum by approximately 10 percent. It also increases recyclability while maintaining the high-performance levels needed to compete in top-tier sprint and endurance racing. ■