

Chrysler Group LLC Providing Duke Energy in Charlotte With Test Fleet of PHEV Ram 1500 Pickup Trucks

- Ten plug-in hybrid electric vehicles (PHEV) will be supplied to Duke Energy in Charlotte, N.C., as part of a demonstration project by Chrysler Group LLC
- Real world city miles to be accumulated on demonstration vehicles over the next three years
- Fleet of vehicles developed in partnership with U.S. Department of Energy
- Ram 1500 plug-in electric hybrid test trucks will be used to evaluate city drive cycles, charging performance, fuel economy and real-world performance

September 21, 2011, Auburn Hills, Mich. - Chrysler Group LLC, working in partnership with the U.S. Department of Energy (DOE), will deliver 10 demonstration fleet Ram 1500 plug-in hybrid electric vehicle (PHEV) pickup trucks to Duke Energy of Charlotte, N.C., this week.

The PHEV Ram 1500 pickups, delivered by Abdullah Bazzi, senior manager of the Chrysler Group's advanced hybrid vehicle project, are part of a national demonstration fleet of 140 vehicles that will be used during the next three years to evaluate customer usage, drive cycles, charging, thermal management, fuel economy, emissions and impact on the region's electric grid. In addition to Duke Energy, nine other partners across the United States are slated to receive vehicles for demonstration and testing purposes.

"Cities have been carefully selected to help the Chrysler Group LLC collect a wide range of data," explained Abdullah Bazzi, senior manager of Chrysler's advanced hybrid vehicle project. "Charlotte offers heavy traffic and urban driving that are ideal city test cycles along and rural areas that include inclines on mountain grades. The constant charging will allow us to measure the impact on battery life and charging efficiency."

Earlier this year, Chrysler Group LLC delivered 10 Ram 1500 PHEV trucks to the city of Yuma, Ariz., to take full advantage of hot weather and conduct thermal testing in the desert southwest. Other cities that have received the demonstration Ram 1500 pickups include San Francisco and Sacramento, Calif.

"Duke Energy is pleased to have the opportunity to take part in this demonstration program with Chrysler LLC and the U.S. Department of Energy," said Jim Stanley, Duke Energy's senior vice president of power delivery. "The information from Duke Energy provided to both Chrysler and the Department of Energy will help shape product development within the automotive industry and electric utility programs and infrastructure that could lead to more of these vehicles in the future."

Strictly a demonstration program, there are no plans for a production version of the PHEV Ram 1500 truck at this time.

Cities and states were selected to evaluate temperature extremes, urban traffic cycles and diverse climates and geographies.

The Ram 1500 PHEV includes a liquid-cooled 12.9kWhr lithium ion battery pack and a 6.6 kilowatt (kW) on-board charger. Additional features include AC power generation of up to 6.6kW; directional charging; reverse power flow and full regenerative braking used to capture more energy. For fuel economy improvements, the front axle of the four-wheel-drive automatic transmission can be disconnected when not needed. The powertrain also includes a 5.7-liter HEMI V-8 engine and a two-mode hybrid transmission. The 5.7-liter Hemi is equipped with a Fuel Saver technology that improves fuel efficiency at highway speeds by shutting down fuel delivery to up to four cylinders.

The battery pack is located under the second-row seat of the pickup and is liquid cooled to help maintain a consistent battery temperature. For on-the-job electrical power tools, a 240 volt/30 amp four-prong outlet and 120volt/20amp

duplex outlet power strip is located in the rear box.

Urban use will be tracked to measure battery performance and overall hybrid efficiency with the demonstration fleet of pickups. Other uses include military bases where vehicles will be able to provide power back to the electric grid in what is termed "reverse power flow" of up to 6.6kW.

Funding for the program in part is provided by the American Recovery and Reinvestment Act of 2009 through the Transportation Electrification Initiative sponsored by the DOE. The grant, totaling \$48 million from DOE and \$49.4 million from Chrysler Group LLC, was designed to develop vehicles that will be cost efficient for consumers, satisfy safety concerns of daily travel without recharging and help reduce dependence on foreign oil.

The Chrysler Group LLC is also developing a similar fleet of 25 Chrysler Town & Country minivans with plug-in hybrid technology for demonstration and evaluation that will be allocated to select cities later this year.

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