

In First, Electric Vehicle-to-Grid Technology Sells Power to PJM Power Grid

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- Milestone by University of Delaware, NRG Energy eV2g project celebrated by Gov. Markell and other leaders -

NEWARK, Del.--(BUSINESS WIRE)--Apr. 26, 2013-- Joined by government and industry leaders, the University of Delaware and NRG Energy (NYSE: NRG) are celebrating an important milestone for its eV2g project today: becoming an official resource of PJM Interconnection and proving for the first time that electric vehicle-to-grid technology can sell electricity from electric vehicles (EVs) to the power grid.

Delaware Governor Jack Markell, senior officials from the, U.S. Department of Energy and the state will be among those at a UD event held today to mark the achievements.

"Moving innovative ideas out of the classroom and into the marketplace is critical to growing our economy," said Governor Jack Markell. "The partnership between NRG and University of Delaware perfectly illustrates the potential for research institutions to spur economic development."

The University and NRG began work in September 2011 to move from research results to prepare to commercialize the technology, which provides a two-way interface between EVs and the power grid that enables vehicle owners to sell electricity back to the grid while they are charging their EVs. On Feb. 27, the project took a big step forward when it became an official participant in the PJM's frequency regulation market. Frequency regulations is used to balance supply and demand on the grid second-by-second. Since then, the project has been selling power services from a fleet of EVs to PJM, whose territory has 60 million people in the 13 mid-Atlantic states.

"This demonstrates that EVs can provide both mobility and stationary power while helping making the grid more resilient and ultimately generating revenue for electric vehicle owners," said NRG Executive Vice President Denise Wilson, who leads the company's emerging businesses. "The advancement also proves the power of partnerships such as these to accelerate the development of clean energy technologies that will deliver for the economy, consumers, security and sustainability."

University of Delaware President Patrick Harker echoed Wilson's praise of partnerships.

"Partnerships have been essential to the success of this initiative," said Harker. "I thank all of the industry and policy leaders who have come together around a project that incorporates clean transportation, stable energy and profitable sustainability. And I thank Prof. Willett Kempton and his fellow scientists for leading the way. It might be a few more years before a grid-integrated vehicle sits in every American driveway, but I'm excited to continue the journey."

A key aspect of the technology is that it can aggregate power from multiple electric vehicles to create one larger power resource, rather than individual, smaller ones. Additional company partnerships that make up the entire system shown today include BMW AG providing the EVs, Milbank Manufacturing providing charging stations based on UD technology, AutoPort Inc. installing UD control technology into the EVs and others.

For grid operators, the technology serves as an innovative new approach to energy storage. It has the potential to balance the power provided by intermittent renewable resources such as wind and solar. Energy storage, such as large-scale batteries or those in a fleet of vehicles, can take the wind's power generated at night and store it to use when demand is higher.

"PJM changed rules for participation in the regulation service market to decrease the minimum amount of power needed to participate and we implemented new rules that recognize and compensate faster, more accurately responding resources, such as batteries," said Michael J. Kormos, senior vice president of PJM Operations. "We knew that by doing so would attract innovation and would find potential for energy storage or other technologies. We're glad to be a part of this project and hope that this inspires continued innovation among our partners and others in the industry."

The technology is expected to initially help managers of commercial EV fleets by providing revenue while the vehicles are parked, with individual EV owners to eventually follow. The system is currently in development with restricted test fleets and is not now a commercial offering.

Besides being one of the country's largest and most diverse power generators, NRG is innovating to make clean energy more accessible. This includes work to deploy large-scale renewable projects, smart meters and other demand-side management technologies, and EVs through its eVgo network of charging stations. The University of Delaware has strong clean energy research and development programs and industry partnerships in solar energy, wind energy, fuel cells biofuels and electric vehicles.

About NRG

NRG is at the forefront of changing how people think about and use energy. We deliver cleaner and smarter energy choices for our customers, backed by the nation's largest independent power generation portfolio of fossil fuel, nuclear, solar and wind facilities. A Fortune 300 company, NRG is challenging the U.S. energy industry by becoming the largest developer of solar power, building the first privately-funded electric vehicle charging infrastructure, and providing customers with the most advanced smart energy solutions to better manage their energy use. In addition to 47,000 megawatts of generation capacity, enough to supply nearly 40 million homes, our retail electricity providers – Reliant, Green Mountain Energy and Energy Plus – serve more than two million customers. More information is available at <u>www.nrgenergy.com</u>. Connect with NRG Energy on Facebook and follow us on Twitter @nrgenergy.

NRG Safe Harbor Disclosure

This news release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the

Securities Exchange Act of 1934. Such forward-looking statements are subject to certain risks, uncertainties and assumptions and include NRG's expectations regarding the Company's eV2g project and forward-looking statements typically can be identified by the use of words such as "will," "expect," "believe," and similar terms. Although NRG believes that its expectations are reasonable, it can give no assurance that these expectations will prove to have been correct, and actual results may vary materially. Factors that could cause actual results to differ materially from those contemplated above include, among others, general economic conditions, hazards customary in the power industry, competition in wholesale power markets, the volatility of energy and fuel prices, failure of customers to perform under contracts, changes in the wholesale power markets, changes in government regulation of markets and of environmental emissions, and our ability to achieve the expected benefits and timing of our vehicle-to-grid projects. NRG undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. The foregoing review of factors that could cause NRG's actual results to differ materially from those contemplated in this news release should be considered in connection with information regarding risks and uncertainties that may affect NRG's future results included in NRG's filings with the Securities and Exchange Commission at <u>www.sec.gov</u>.

About University of Delaware

Tracing its heritage back to 1743, the University of Delaware is a state-assisted, privately controlled institution with an enrollment of more than 16,000 undergraduates, 3,500 graduate students and 1,000 professional and continuing education students. The University offers degrees in a broad range of disciplines across seven colleges and is a land-grant, sea-grant and space-grant institution. The University is classified by the Carnegie Foundation for the Advancement of Teaching as a research university with very high research activity – a designation accorded to fewer than 3 percent of U.S. colleges and universities. For more information, visit www.udel.edu.

About PJM

PJM Interconnection, founded in 1927, ensures the reliability of the high-voltage electric power system serving 60 million people in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. PJM coordinates and directs the operation of the region's transmission grid, which includes 59,750 miles of transmission lines; administers a competitive wholesale electricity market; and plans regional transmission expansion improvements to maintain grid reliability and relieve congestion. Visit PJM at www.pjm.com.

Source: NRG

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