



NEWS RELEASE

Contact: Chris Watts, Central Indiana Corporate Partnership/Energy Systems Network

Phone: 317.514-3184

E-mail: cwatts@cincorp.com

Melissa Roberts, Energy Systems Network

Phone: 317.532.4808

Email: mroberts@cincorp.com

Hoosiers 'hit the road' to help plug-in vehicles, homes and utilities communicate:

Drivers begin 12-month pilot of vehicle and smart charging technologies with Toyota, Duke Energy, Sumitomo Electric, Energy Systems Network

(INDIANAPOLIS, Ind., January 16, 2013) A groundbreaking pilot project based in Central Indiana entered a new phase today as five Duke Energy customers received keys to new Toyota Prius Plug-in Hybrid automobiles equipped with first of its kind communication technology. They'll drive the cars for the next 12 months – but there's more than a new vehicle at stake. Toyota Motor Company, Duke Energy, Sumitomo Electric, and the Indianapolis-based Energy Systems Network (ESN) are collaborating to test new technologies and standards for how plug-in vehicles, home charging stations, utility companies and drivers can seamlessly communicate to maximize convenience and energy savings for the customer.

The pilot project uses advanced technologies to give customers the ability to achieve their own personal charging strategy automatically – for example, minimize electricity costs by communicating with the utility company to recharge during off-peak periods. 'Home gateway' systems developed by Sumitomo Electric and vehicle charging stations have been installed in each residence, and are integrated with the utility company allowing customers to adjust charging remotely by a tablet computer.

Toyota selected Central Indiana to test the new systems and standards, working with the Energy Systems Network, the clean technology initiative that has led Project Plug-IN, a campaign to deploy electric vehicles and charging stations in the region and position Indiana as a national leader in 'Plug-in-readiness.'

At today's kick-off event at the Tom Wood Toyota Collision Center in Indianapolis, the five Duke Energy customers received their vehicles. For 12 months, the drivers will be providing Toyota, Duke and its partners with diverse data that will allow them to refine the systems and perfect the customer experience. Tom Wood Automotive Group, a Project Plug-IN partner, will be providing maintenance and customer support for the drivers throughout the 12 month period through its Tom Wood Toyota division.

“As customers, we value the connectivity that comes with ‘smart’ technologies,” said Shigeki Sugiura, General Manager of Toyota Motor Corporation. “We can program our televisions with our phones, or adjust our thermostats from work so our homes are 68 degrees when we walk in the door. We’re bringing that same level of integration to plug-in vehicles, charging infrastructure and utilities, starting here in Greater Indianapolis.”

Paul Mitchell, ESN’s President & CEO, added that the pilot project once again puts Central Indiana on the cutting-edge of automotive innovation.

“The first mass-produced electric car, the GM EV1, was engineered in Indianapolis more than twenty years ago,” Mitchell noted. “Today, through the Project Plug-IN initiative and working with great partners like Toyota, Sumitomo, Duke Energy and many others, we remain at the forefront of making the ‘electric commute’ a practical reality for the American driver.”

The project aims to test and validate the effectiveness of communication standards developed by the Society of Automotive Engineers (SAE) to provide a simple and affordable intelligent communication protocol for efficient charging. The ultimate goal is seamless integration between vehicle, charging station and the utility.

“New systems and standards can make charging your vehicle as routine as setting your DVR,” added Kazuhiko Hayashi, General Manager of Sumitomo Electric. “But instead of recording every new episode of your favorite TV show, you’re telling your utility when and how you want your vehicle charged – as soon as you pull into the garage, your car becomes part of the home’s energy ecosystem.”

Toyota has provided a UL certified home charging station and a home gateway communication system for each customer’s home, allowing the vehicle and the smart charging equipment to communicate with each other to evaluate billing and power supply control. The pilot will employ the use of Homeplug Green PHY, a Power Line communication standard that is based on SAE technical standard J2931, and utilizes ISO/IEC standard which has been announced by ACEA (European Automobile Manufacturers’ Association) as the European standard beginning in 2017. This method allows the sharing of data collected in a home network between the plug-in vehicle and the utility. Toyota Info Technology Center, U.S.A., Inc.; Sumitomo Electric Industries, Ltd. and Leviton Manufacturing Co., Inc. support this project as the suppliers of the communication systems and Level 2 charging stations respectively.

Each Duke Energy customer will use the vehicle communication system to monitor and manage their optimized charging using a mobile software application provided by Toyota for the pilot project. Data collected from the vehicles will be aggregated and maintained securely, protecting all personal information. Surveys will be administered in order to gather qualitative data on customer experience and behavior related to the pilot project.

Energy Systems Network (ESN) is a not-for-profit, industry-driven economic initiative focused on the development of the clean technology sector. ESN provides project development and coordination for joint ventures and cooperative partnerships between network members who are seeking to bring new energy technologies, products or applications to market. ESN member institutions provide industry

expertise across the energy spectrum, including Fortune 500 and global leaders collaborating on projects totaling nearly \$1 billion in investment. Among several other initiatives, ESN and its partners developed *Project Plug-IN* – a commercial scale pilot of plug-in electric vehicles and smart grid technology working together to demonstrate an energy efficient transportation system solution. It aims to develop, deploy, demonstrate, market and evaluate a range of plug-in vehicles powered by an integrated charging infrastructure located in homes, businesses and parking facilities. To date ESN has coordinated the deployment of more than 125 electric vehicles to public and private fleets as well as consumers and installed of nearly 200 charging stations across the Indianapolis region. For more information, visit www.energysystemsnetwork.com.

About Duke Energy

Duke Energy is the largest electric power companies in the United States with more than \$97 billion in total assets. Its regulated utility operations serve approximately 7.1 million electric customers located in six states in the Southeast and Midwest. Its commercial power and international business segments own and operate diverse power generation assets in North America and Latin America, including a growing portfolio of renewable energy assets in the United States.

Headquartered in Charlotte, NC, Duke Energy is a Fortune 250 company traded on the New York Stock Exchange under the symbol DUK. More information about the company is available at www.duke-energy.com.

About Toyota Motor Corporation

Toyota Motor Corporation and its subsidiaries sold over 7.3 million cars, trucks and buses worldwide under the Toyota, Scion, Lexus, Daihatsu and Hino brands in the fiscal year ended March 31, 2012. The company manufactures vehicles and parts in 26 countries and regions around the world and sells them in approximately 170 countries and locations. Toyota established operations in the United States in 1957 and currently operates 10 manufacturing plants. Toyota directly employs over 30,000 in the U.S. and its U.S. investment is currently valued at more than \$18 billion, including sales and manufacturing operations, research and development, financial services and design. In an effort to develop the vehicles and technologies of the future, Toyota's R&D is far reaching and includes investing more than \$1 million an hour globally in areas such as vehicle safety, quality and sustainability. While Toyota remains committed to hybrids as the core of its environmental technology, their sustainable mobility strategy is far-reaching and incorporates products, partnerships, the urban environment and energy solutions. Toyota is slated to bring multiple plug-in hybrid vehicles and electric vehicles to market by 2012. Key elements of plug-in vehicle expertise at Toyota are housed in the advanced product strategy & product planning group at Toyota Motor Sales U.S.A., Inc. This group oversees the development of new concepts and strategies for future Toyota and Lexus vehicles. Toyota Info Technology Center U.S.A., Inc. is a subsidiary of Toyota in Mountain View, California responsible for developing advanced technologies.

About Sumitomo Electric

Since its founding in 1897, the Sumitomo Electric Group has developed and delivered industry leading technologies and products through innovative R&D activities based on the prowess of its engineering and production capabilities in electric wires and power cables. The Sumitomo Electric Group provides superb products and services in five core business segments: Automotive, Information & Communications, Electronics, Electric Wire & Cable, Energy and Industrial Materials. Sumitomo Electric has manufacturing facilities and sales offices in Asia, North America, Europe and others.