



## FOR IMMEDIATE RELEASE

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> **Toshiba International Corporation and Duke Energy to Pilot Energy Storage Technologies** Joint Research Project Highlights Grid Enhancement Capabilities

**Toshiba International Corporation, Houston, TX, March 12, 2014** -- Toshiba International Corporation (TIC) and Duke Energy, two leading companies in American power transmission and distribution, are teaming up to pilot a battery storage system designed to regulate frequency and increase stability within the power grid.

The project is supported by Japan's New Energy and Industrial Technology Development Organization (NEDO), under its program for "Development of Large Scale Energy Storage System with High Safety and Cost Competitiveness."

"Duke Energy has a stellar record of pursuing new and more efficient power delivery methods," said Kyle Kem, senior vice president at TIC. "Duke Energy is an ideal collaborator for testing Toshiba's evolving energy storage technologies, and we welcome this unique opportunity for collaboration and learning."

The joint research project will utilize a lithium-ion (SCiB<sup>™</sup>) Battery Energy Storage System (BESS) consisting of a stationary BESS with 2 megawatts (MW) output and 0.8 megawatt-hour (MWh) capacity. It is located at Duke Energy's W.C. Beckjord Station in New Richmond, Ohio, and is expected to become operational in the third quarter of this year.

The five-year project will highlight Toshiba's smart grid capabilities by using the SCiB-based BESS to assist in maintaining the grid frequency in PJM, the regional transmission organization powering much of the eastern United States. The battery also is expected to be used for other applications, such as large-scale renewable integration.

"We are pleased to be partnering with Toshiba, a company renowned for innovative technologies, on this project," said Phil Grigsby, vice president of commercial transmission at Duke Energy. "Fastresponding energy storage is being recognized for the tremendous benefits it provides to grid operations due to its rapid and accurate response. This project adds to our installed base of commercially operating storage projects, while allowing us to demonstrate the capabilities of the SCiB technology and the potential for future applications."

More than a year ago, Duke Energy, in partnership with the U.S. Department of Energy, completed a 36-MW energy storage and power management system at its Notrees Windpower Project in west Texas. The advanced lead-acid battery technology mitigates the variability of wind power and helps to stabilize the short-term changes in electricity use that might affect the stability of the power system. With the project at Beckjord, the company continues to explore the potential for broader adoption of energy storage solutions throughout the industry.

With global experience in product development, engineering and construction, Toshiba provides a full range of energy services. Toshiba Transmission & Distribution offers a comprehensive array of products such as gas and oil insulated transformers, substations, and circuit breakers. Toshiba's commitment to quality, safety and reliability gives strength in achieving a foothold in the competitive global power equipment market.

Toshiba is a world leader in the supply of integrated solutions for energy transmission, distribution, and smart communities, and is promoting wide spread of the BESS using Toshiba's advanced SCiB rechargeable batteries. The SCiB has excellent features such as safe, long life for more than 10,000 charge-and-discharge cycles, high effective capacity, and low-temperature operation. Those features are highly suited for the BESS applied to frequency regulation.

## **About Toshiba Corporation**

Toshiba was founded in 1875, and today operates a global network of more than 590 consolidated companies, with 206,000 employees worldwide and annual sales surpassing 5.8 trillion yen (US\$61 billion). Toshiba Group brings innovation to a wide range of businesses: digital products, electronic devices, industrial and social infrastructure systems, and home appliances. Visit Toshiba's website at www.toshiba.co.jp/index.htm.

As one of the world's largest manufacturers of state-of-the-art transmission and distribution equipment, Toshiba has provided highly reliable and innovative products to the global market for over a century. The Toshiba Transmission & Distribution product offering meets the market demand for larger capacity, compact design, and environmentally friendly solutions that produce impressive efficiency ratings and excellent results. For more information, please visit <u>www.toshiba-tds.com</u>.

## **About Toshiba International Corporation**

TIC is a Toshiba America Inc. (TAI) Group Company, a wholly owned subsidiary of Toshiba Corporation. TIC is headquartered in Houston, Texas and employs approximately 2,000 people. TIC provides application solutions to a wide range of industries including industrial, power systems, transmission and distribution systems, and LED lighting systems. For more information about TIC, please visit www.toshiba.com/tic.

## **About Duke Energy**

Duke Energy is the largest electric power holding company in the United States with more than \$110 billion in total assets. Its regulated utility operations serve approximately 7.2 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, N.C., 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: <u>www.duke-energy.com</u>.