# PPL Electric Utilities, GE Power Collaborating on Distributed Energy Technology

Joint initiative aims to facilitate the increasing adoption of renewable generation while maintaining focus on grid safety and reliability

ALLENTOWN, Pa., Nov. 13, 2018 /PRNewswire/ -- PPL Electric Utilities and GE Power Digital announced a joint initiative to develop and test software to manage and control electricity from renewable and stored energy sources.

The initiative will enable both companies to learn more about the impact of this type of power — called Distributed Energy Resources (DER) — on grid management and accelerate the advancement of technology to support it.

DERs are local electricity generation, storage and other energy resources typically connected to the grid at the distribution level. With the growth of renewable resources, such as wind and solar, DERs play a growing role in the grid and make network operations more dynamic and complex for utilities like PPL.

Challenges exist because energy resources like wind and solar are not constantly available. At the same time, the grid must be able to assimilate the power while still providing safe and reliable service for all customers.

Planning for, monitoring and controlling DERs while maintaining reliability requires in-depth system knowledge combined with advanced technologies. GE's DER Orchestration software uses automated and adaptive technologies to manage the impact of distributed generation. GE was recently recognized by IDC MarketScape as a leader in DER management systems.<sup>1</sup>

PPL will adopt GE's DER Orchestration and integrate it with the utility's Advanced Distribution Management Solutions (ADMS). This combination will enable the utility to model and improve grid operations, maintain grid reliability, enhance load forecasting and improve bi-directional communication with DERs. PPL and GE will test the software within the utility's service territory for assistance with future product development and verification for others within the industry considering DERMs solutions.

Matt Green, chief information officer at PPL, commented, "There will be more change in the electric utility industry over the next 10 years than we have experienced in the prior 100 years. Distributed energy will be everywhere, but we'll still need the grid. With the proper investments to successfully orchestrate DERs, the grid will become more valuable. Utilities are best positioned to provide the platform of the future and enable emerging technologies to thrive. To accomplish this, we need long-term strategic relationships such as the one we have established with GE."

Responding to changes in the grid while maintaining reliability is a key focus for PPL. Their investments to date include installing smart grid technology, designing data analytics models to improve equipment maintenance and replacement and installing better protection against damage from lightning strikes. PPL is ranked in the top 10 percent nationally and first in the Mid-Atlantic region in keeping the lights on for its customers, according to system average outage frequency figures from the Institute of Electrical and Electronics Engineers (IEEE).

Reliability is directly related to customer satisfaction. PPL routinely ranks among national leaders in customer satisfaction, according to a noted national study. The study measures utility customer satisfaction by examining key factors, with power quality and reliability having the highest weight.

"Distributed energy brings with it variability that places new stresses on the grid. To address this challenge, new approaches to business and operating models along with advanced software solutions are critical," said Jeff Wright, vice president of product management for GE Power. "We're glad to be working directly alongside a forward-thinking utility like PPL. Not only are they focused on innovating for the future, they're focused on doing it the right way for their customers – safely and reliably."

# **About PPL Electric Utilities**

PPL Electric Utilities provides electric delivery service to more than 1.4 million homes and businesses in Pennsylvania and ranks among the best utility companies in the country for customer service and reliability. PPL Electric Utilities is a major employer in the communities it serves. It is a subsidiary of PPL Corporation (NYSE: PPL). For more information visit www.pplelectric.com.

#### About GE

GE (NYSE: GE) is the world's Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive and predictive. GE is organized around a global exchange of knowledge, the "GE Store," through which each business shares and accesses the same technology, markets, structure and intellect. Each invention further fuels innovation and application across our industrial sectors. With people, services, technology and scale, GE delivers better outcomes for customers by speaking the language of industry. www.ge.com

## **About GE Power**

GE Power is a world energy leader providing equipment, solutions and services across the energy value chain from generation to consumption. Operating in more than 180 countries, our technology produces a third of the world's electricity, equips 90 percent of power transmission utilities worldwide, and our software manages more than forty percent of the world's energy. Through relentless innovation and continuous partnership with our customers, we are developing the energy technologies of the future and improving the power networks we depend on today. For more information please visit www.ge.com/power, and follow GE Power on Twitter and on LinkedIn.

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<sup>1</sup> IDC MarketScape: North America Distributed Energy Resource Management Systems 2018 Vendor Assessment (Doc #US41793416), August 2018.

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