Press Release

S&C, Schneider Electric and Oncor Complete Innovative Microgrid

Unique microgrid system demonstrates distributed energy resources and improves reliability for Oncor

CHICAGO and DALLAS, April 7, 2015 – S&C Electric Company, a smart grid leader shaping the future of power delivery, and Schneider Electric, a global specialist in energy management, have announced the unveiling of one of the most advanced microgrids in North America for Oncor, an electric transmission and distribution company serving 10 million customers across Texas. The microgrid is engineered to maximize newly installed energy storage, renewable generation and improve reliability. S&C teamed with Schneider Electric to combine new hardware and software technologies for the state-of-the-art facility, which includes an integrated demonstration center for Oncor to showcase the microgrid’s advanced capabilities and customer benefits.

To watch a video and learn more about Oncor’s microgrid, please click here.

S&C and Schneider Electric built the microgrid at Oncor’s System Operating Services Facility (SOSF) near Lancaster, Texas. The innovative system consists of four interconnected microgrids and utilizes nine different distributed generation sources, including two solar photovoltaic arrays, a microturbine, two energy storage units and four generators. To turn these diverse generation assets into a microgrid, S&C and Schneider Electric developed a distribution automation scheme that leverages multiple intelligent grid solutions from both companies—enabling the four microgrids to effectively operate independently or as one larger microgrid.

“Improving power reliability and optimizing generation assets requires disruptive technologies that allow customers to work on and off the grid,” says David Chiesa, director, Microgrid Business Development, S&C. “Oncor’s microgrid is showing the world how utilities can help their communities in the future.”

During a loss-of-power event, a combination of S&C’s advanced distribution automation equipment and Schneider Electric’s Microgrid Controller (MGC) use high-speed communications and distributed grid intelligence to automatically detect a problem on the grid. It starts with S&C’s IntelliRupter® PulseCloser™ fault interrupter which detects an interruption in power, tests to see if the issue is temporary or permanent, and if it is permanent dynamically isolates the facility. The system then uses...
Press Release

S&C’s Scada-Mate™ CX Switches and Vista® Underground Distribution Switchgear to automatically re-configure the distribution system while the MGC autonomously switches to alternative distributed power sources. “It does all of this in a matter of seconds, or faster than a customer could find their flashlight in the dark,” says Chiesa.

The energy storage systems are the backbone of the microgrid, which include S&C’s PureWave® Community Energy Storage System. The onsite energy storage – which stores energy from either the utility feed or any of the facility’s generation sources – provides the voltage signal for the site, enables renewable integration, controls the microgrid frequency and is the first generating source to respond during an unexpected loss of power.

The microgrid system also benefits from advanced grid technologies developed by Schneider Electric, including the PowerLogic® load preservation system, the microgrid controller and a new technology called StruxureWare™ Demand Side Operations (DSO). Schneider Electric’s DSO model delivers economic optimization and dispatch of the microgrid distributed energy resources (DER), allowing the system to maximize renewable energy usage and storage while minimizing energy costs. DSO’s innovative platform makes this possible by leveraging market pricing signals, weather and forecasting information, historical energy usage data and real-time building information.

“Working with Oncor and S&C to demonstrate how DSO cost effectively brings grid scale dispatch and optimization technology to the microgrid is exciting,” says Philip Barton, Microgrid Program Director of Schneider Electric. “By combining S&C’s solutions with Schneider Electric’s PowerLogic load preservation system, microgrid controller and DSO, I am confident that Oncor’s system is one of the most advanced and comprehensive microgrids in the market today.”

To help educate and demonstrate the benefits of microgrids to residents, students, policymakers and businesses, S&C and Schneider Electric were asked to develop a microgrid demonstration facility on the SOSF campus. That facility will be known as Oncor’s Technology Demonstration and Education Center (TDEC) and consists of two exhibits – an immersion room and a demonstration center. In the immersion room, the Oncor microgrid story is brought to life on seven screens for a full cinematic experience. The microgrid story highlights the history of the electric grid and the changes Oncor has made over time.
Press Release

“Oncor has a rich history of working collaboratively with its vendor partners and this is a great opportunity to showcase those relationships in a state-of-the-art microgrid facility,” says Michael Quinn, Oncor Chief Technology Officer.

The Center, which also serves as the SOSF microgrid control center, displays the new technology that Oncor is using on their system. The demonstration room features a fully functioning SCADA representation of the microgrid to show how the system reacts to a loss of power event such as extreme weather. Once an event is created, the switching devices respond accordingly, clearing the fault, isolating the faulted section and restoring service from an alternate source. The switching devices, controls, communications and software shown are all real and completely functional.

S&C and Schneider Electric will be demonstrating the system for the first time to attendees of the Third National Microgrids Conference, being held in Dallas April 14-16, 2015. Subsequent tours of Oncor’s microgrid can be arranged by e-mailing microgrids@sandc.com.

About Schneider Electric
As a global specialist in energy management and automation with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in Non-residential & Residential Buildings, Industries & Machines Manufacturers, Utilities & Infrastructure and Data Centers & Networks. Focused on making energy safe, reliable, efficient, productive and green, the company's 170,000 employees achieved revenues of 30 billion US dollars in 2014, through an active commitment to help individuals and organizations make the most of their energy.

www.schneider-electric.com/us

About S&C Electric Company: S&C Electric Company is a global provider of equipment and services for electric power systems. Founded in 1911, with global headquarters in Chicago, USA, S&C applies its heritage of innovation to address challenges facing the world's power grids and is thus shaping the future of reliable electricity delivery. The mission of employee-owned S&C is to continually develop new solutions for electricity delivery, fostering the improved efficiency and reliability required for the intelligent grid. Learn more at www.sandc.com.

About Oncor: Oncor Electric Delivery Company LLC (“Oncor”) is a regulated electricity distribution and transmission business that uses superior asset management skills to provide reliable electricity delivery to consumers. Oncor operates the largest distribution and transmission system in Texas, delivering power to more than 3.3 million homes and businesses and operating more than 121,000 miles of transmission and distribution lines in Texas. While Oncor is owned by a limited number of investors (including majority owner, Energy Future Holdings Corp.), Oncor is managed by its Board of Directors, which is comprised of a majority of independent directors. Learn more at www.oncor.com.

###

Press Contact:
Text 100 for Schneider Electric
Caroline Pennartz
Phone: 617-399-4920
caroline.pennartz@text100.com

)1 41 29 70 76 tél. +33 (0)1 41 29 70 76