



PRESS RELEASE

MTS Partners with California ISO, PG&E, SCE, and SDG&E on New Framework for Improved Coordination between Transmission and Distribution Electricity Grid Operations in a High Distributed Energy Resource Future

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Oakland, CA—June 12, 2017 – California is rapidly decarbonizing its electricity grid through increased reliance on decentralized production, storage and management of electricity use. To maintain reliable customer service in a more decentralized power grid, California’s grid operators are finding new ways to coordinate operations.

The new practices are highlighted in a report released today titled *“Coordination of Transmission and Distribution Operations in a High Distributed Energy Resource Electric Grid,”* prepared by the California Independent System Operator (CAISO), Pacific Gas & Electric (PG&E), Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E), in partnership with More Than Smart. The report describes the challenges of operating a high distributed energy resource grid, and recommends a number of new, proactive exchanges of information between CAISO, utilities, and DER service providers.

“CAISO recognizes that DERs will grow in volume and diversity in the coming years to become a key contributor to meeting California’s greenhouse gas reduction goals. This report summarizes the initial work by the CAISO and the investor-owned distribution utilities to coordinate operations to ensure the future high-DER grid is reliable and enables DERs to maximize their value,” said Lorenzo Kristov from CAISO. “For example, we have discussed how the CAISO could initiate processes that provide day-ahead DER schedules and dispatch instructions to the distribution utility to identify any potential reliability concerns in advance of real time. We’ve also discussed how the distribution utility could inform the DER provider of current grid conditions that may constrain the resource’s operations. The idea is to share information and address operational issues ahead of time rather than during real-time operation.”

Today, distribution and transmission grid operators don’t have full transparency on each others systems. For example, a downed distribution line can negatively impact energy delivery agreements made between a transmission system operator (TO) and a DER provider due to only the distribution operator (DO) being able to see the downed line. By providing information more quickly to DER providers (in day ahead formats, for example), the TO and DER provider can ensure the DER services are used effectively.

“In the past grid operators organized their communications to enable reliable service in a grid with one-way power flow from big central generators to customers. Today power has begun to flow two-ways, from customers back into the system. This paper represents a big step forward in developing the communication flows needed to enable two-way power flows,” said Matthew Tisdale, the Executive Director for More Than Smart.

“PG&E believes that utilities are best positioned to continue operating this changing electric distribution grid, investing appropriately in the type of system integration needed to keep providing safe, reliable, affordable and clean power as the complexity of the grid continues to grow,” said Mark Esguerra, Director, Integrated Grid Planning, PG&E. “PG&E continues to look toward innovation, integration of new technologies and processes, and collaboration to drive a clean energy future.”



“DER’s will play an important and growing role in helping California achieve its ambitious GHG reduction goals and providing customers with more energy choices,” said Erik Takayesu, SCE Managing Director for Grid Modernization, Planning and Technology. “It is crucial we continue working on building needed capabilities, such as those noted in this joint paper, and implement changes to ensure safe and reliable operations as our electrical grid evolves to integrate these new resources.”

“Collaboration at this level is so important as we lay the framework for what we hope the future of DER will look like and, with the right tools in place, the outcome will be a successful one,” said Will Speer, SDG&E’s Director of Electric Transmission & Distribution Engineering. “With a common goal to reduce greenhouse gas emissions and enhancing safety and reliability, this partnership brings the right people to the table to help us plan for a cleaner energy future.”

This report was developed as part of a MTS working group to bring together diverse industry participants and stakeholders to identify needs and craft recommendations toward building a new transmission and distribution grid coordination framework. The recommendations are necessarily interim because the growth of DER on the electric system is a dynamic process that will evolve over the coming years, revealing new use cases, business models, and technologies that may create new challenges and coordination needs and offer new solutions. The working group will continue to meet throughout 2017 to track DER growth and further advance the T-D coordination framework through use case analysis. This work has been supported through generous support from The Energy Foundation.

The full paper and information on the “T-D Interface Coordination” Working Group can be found at www.morethansmart.org.

About More Than Smart: MTS develops solutions for building an electricity grid that provides more opportunities for more parties to produce and use clean energy. A key focus is providing assistance to states to follow the MTS Walk-Jog-Run® Framework for modernizing distribution grids through an engineering-based framework that acknowledges the unique energy policies of each state. More information can be found at www.morethansmart.org.