



GE and PG&E to Unlock Distributed Energy Resource Potential in California

- *A pilot project to demonstrate Distributed Energy Resource Management*
- *To help maintain reliable operation of the distribution network*
- *GE to provide distributed energy resource management software to optimize grid operations*

PARIS – August 12, 2016 – GE (NYSE: [GE](#)) and Pacific Gas and Electric Company (PG&E) are collaborating on a pilot project to demonstrate effective Distributed Energy Resource Management (DERM) in California. The project focuses on maintaining reliable operation of the distribution network with the increase in distributed energy resources (DER) such as solar photovoltaic (PV) and battery storage, and will leverage GE's Grid IQ Insight framework for visualization and situational intelligence.

Increasing DER penetration levels in California are expected to create operational challenges for utilities. However, through effective management of DERs, these challenges can be overcome and opportunities to utilize the flexibility of DERs for operational benefit realized.

With more than 2,700 MW of installed distributed generation (DG) capacity and a growth rate of approximately one new solar customer every seven minutes, PG&E is at the forefront of DER adoption in North America. This pilot project will explore the use of DER flexibility to mitigate operational impacts on the distribution network, through a combination of solar PV and battery storage devices, in conjunction with smart inverter technologies. By optimally matching energy produced locally from DERs with consumption, utilities are able to ensure grid reliability and power quality while reducing the need for additional grid reinforcement and capital expenditure and lowering energy costs for end users.

GE's Grid Solutions business will provide its DERMS software platform that will enable PG&E with look-ahead capabilities and optimization of a portfolio of DERs. This is achieved through real-time monitoring and coordinated operation of DER assets such as storage and distributed solar PV generation. The platform will utilize communications based on IEEE 2030.5 standards, also known as the Smart Energy Profile 2.0, to enable coordination with 3rd party DER aggregators.

"This digital solution will help PG&E optimize the grid for better management and increased efficiency. PG&E and GE are focused on bringing new levels of awareness, visualization and optimization to the management of the electric grid of the future," said Karim El-Naggar, Chief Digital Officer at GE Energy Connections.

This pilot project builds on GE's prior DER management achievements including the NiceGrid smart solar district demonstration project headed by Enedis in France, as well as Integrated Smart Distribution and Smart Inverter projects in conjunction with the Department of Energy, National Renewable Energy Labs and Duke Energy in the USA.

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