



POWERPACK
 ENHANCES SOUTHERN CALIFORNIA
 ELECTRIC GRID RELIABILITY

"This project is part of our vision at Southern California Edison to take advantage of the wind and sun, and operate a flexible grid that delivers clean energy to power our homes, our businesses, and our vehicles."

Kevin Payne, CEO, Southern California Edison

OPPORTUNITY

In response to the Aliso Canyon gas storage leak, the California Public Utilities Commission mandated an accelerated procurement for utility-scale storage solution that could be operational by December 31st, 2016. Through a competitive bidding process, Tesla was selected to provide a 20 MW/80 MWh Powerpack system at the Southern California Edison (SCE) Mira Loma substation. Tesla successfully installed the system in 3 months.

SOLUTION

Powerpack 2 is Tesla's next generation storage solution, which includes an integrated Tesla inverter. The system has been designed and engineered by Tesla to maximize safety, efficiency and energy density and has been rigorously tested to ensure it will perform reliably and provide critical energy to Southern California residents. In addition, Tesla provides a performance guarantee or a Capacity Maintenance Agreement (CMA) that ensures SCE will be able to utilize a certain amount of system energy each year.

RESULTS

SCE owns and operates Powerpack, which acts as a peaker plant when needed by providing multiple grid services. The primary application is to provide capacity and fast ramping capability when the natural gas system is contained, which results in greater grid reliability and smoother integration of renewable resources. SCE will also be able to bid Powerpack into the CA energy markets, which include ancillary services such as frequency regulation and spinning reserves. SCE's SCADA system sends commands to the Powerpack Controller via the Modbus/DNP3 communication protocol. By stacking multiple applications, a multi-hour system becomes cost-competitive with a peaker plant.

Customer

Southern California Edison (SCE)

Location

Ontario, CA



System Size

20MW / 80MWh

Applications

Grid Reliability Enhancement

Commissioned

2016
 3 months from deployment to operation

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