

PROJECT PROFILE

Beacon Solar Plant - 20MW/10MWh BESS



Los Angeles
Department of
Water & Power

Outcomes:

1. Maintain grid reliability and lowering use of LADWP's natural gas generators.
2. Establish key foundational elements that enable a scalable, utility-integrated energy storage program that creates value over the long-term for LADWP and its customers.

Challenge

With a target of 178 MW of new energy storage to meet by 2021 and a need to address grid reliability issues created by the interruption in natural gas supply from SoCal Gas' Aliso Canyon storage facility, the Los Angeles Department of Water and Power (LADWP) is fielding a 20 MW / 10 MWh battery energy storage system (BESS) adjacent to its Beacon Solar Plant in the Mojave Desert.

Doosan GridTech Solution

Doosan's modular turnkey design includes thirteen transformer/PCS/lithium-ion battery strings, redundant auxiliary power systems, and 100% redundant HVAC systems. The design also enables preventative maintenance, which is necessary in the harsh Mojave Desert environment, to occur without sacrificing availability.

The BESS is controlled by the Doosan GridTech Intelligent Controller® (DG-IC®) - one of the first software control systems built on open standard interfaces. The DG-IC is the "brains" within each BESS, with intelligence to coordinate schedules and operating modes with SCADA and respond to local signals from power meters and other sources. The software is highly scalable enabling LADWP to potentially expand the Beacon site up to 50 MW of capacity without the need for additional control software.