



Battery Energy Storage System

IID is on the cutting edge of new and innovative technologies in the energy industry as it works to develop a 30 megawatt, 20 megawatt hour battery energy storage system that will provide operational support across the balancing authority. The system will provide grid flexibility and increase reliability on the IID network by facilitating solar integration, frequency regulation and power balancing. It will consist of associated controllers, a substation and a 92kV interconnection.



Integration of renewables

Located in California, which has some of the most aggressive renewable portfolio requirements in the nation, IID will use a battery system to complement the integration of renewable resources, such as solar and wind, by adding stability and improving power quality.

Technology

GE will provide an integrated energy storage solution, using environmentally-safe lithium ion batteries, manufactured by Samsung. The project is configured using GE's Mark* VI plant controls, GE Brilliance* MW inverters, GE Prolec transformers, medium voltage switchgear and housed in a GE purpose-built enclosure next to the El Centro generating station.

Benefits

Reliability - This project adds reliability of the IID grid, the district can use the battery system to "black start" units at the El Centro Generation Station, one of IID's main internal sources of generation.

Environmental - Less fossil fuel - The battery storage system will smooth power supplies and act as a spinning reserve, assignments that typically require expensive fossil fuel generation.

Economic - Reduction in IID operating costs in the first year and throughout the lifetime of the project which provides significant cost savings to rate payers.

Project Partners

Coachella Energy Storage Partners-

Led by Imperial Valley local Mike Abatti, CESP was formed to strengthen local interest in developing new and innovative ways of maintaining cost effective solutions for utilities.

ZGlobal Inc. A local engineering firm with deep roots in California and vast knowledge of the Western electric system. CESP hired ZGlobal as the owner's engineer and to project manage.

Chula Vista Electric Co. -A full-service integrated electrical and network systems provider covering electrical design, construction, and testing and maintenance services. CESP hired Chula Vista Electric to construct the Substation.

General Electric - With more than 7 00 years of experience powering the world, GE's energy storage solutions are present in 25 countries with over 50 megawatt hours of grid storage installed in a variety of applications. CESP hired GE to provide an integrated storage solution.

Timeline

Planning / design process	Fall 2013
Construction start	Oct. 2015
Anticipated completion	Sept. 2016



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