

Press release

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Siemens Energy wins its first black-start battery storage project for power generation in the U.S.

- Contract for engineering, procurement and construction work at Marsh Landing facility (Antioch, CA) will allow the plant to quickly restart and facilitate grid re-energization in the event of an outage
- Project will provide critical reliability service to the Bay Area and improve grid stability

Siemens Energy announced today that it will design, build and commission a black-start system at Clearway's Marsh Landing Generating Station near Antioch, California ("Marsh Landing"). Black-start capabilities will allow the station to restart the flow of electricity to the facility's auxiliary systems without the support of an external power supply in the case of an outage or blackout situation. Siemens Energy will engineer and build a customized battery energy storage system ("BESS") that can support up to three attempts to restart a unit at Marsh Landing within one hour.

Traditional emergency back-up systems run on diesel generators or small, fossil fuel industrial turbines. By contrast, the BESS-based black-start system operates in a carbon-neutral way to start one of the plant's four combustion turbine generator units. In addition to the BESS, the project will involve transformers to increase voltage, switch gear to integrate the BESS into the broader Marsh Landing system, electrical, civil and structural engineering and control system modifications.

"Battery storage systems like this one are capable of fully restarting power on a highly expedited basis," said Laura Anderson, senior vice president, Controls and Digitalization for Siemens Energy. "We are excited to lead this project at Marsh Landing because it will not only help to restore power quickly in the event of an outage, but it will reduce emissions over traditional back-up systems. It will also improve grid reliability in the Bay Area."

The Marsh Landing Generating Station is a four-unit simple-cycle plant and was one of Siemens Energy's first "Flex-Power" plants, which are capable of fast starts that minimize emissions while

ramping up to full power in only 12 minutes. It entered commercial operation in 2013 and can provide 720 megawatts of electricity to the California grid, enough to serve up to 650,000 homes. Siemens Energy supplied the four gas turbines, four generators, the SPPA-T3000 distributed control system and auxiliary and secondary systems for the plant.

“Battery storage will play an increasingly important role in both securing the power grid and enabling renewable energy generation,” said Chad Plotkin, chief financial officer at Clearway Energy. “We are excited to work with Siemens Energy on this strategically important project at Marsh Landing to deliver long-term grid resilience and continue to act as a source of reliable power supply to the Bay Area.”

Work on the project has already begun, with the project scheduled to commence in early-summer 2021.

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Siemens Energy is one of the world's leading energy technology companies. The company works with its customers and partners on energy systems for the future, thus supporting the transition to a more sustainable world. With its portfolio of products, solutions and services, Siemens Energy covers almost the entire energy value chain – from power generation and transmission to storage. The portfolio includes conventional and renewable energy technology, such as gas and steam turbines, hybrid power plants operated with hydrogen, and power generators and transformers. More than 50 percent of the portfolio has already been decarbonized. A majority stake in the listed company Siemens Gamesa Renewable Energy (SGRE) makes Siemens Energy a global market leader for renewable energies. An estimated one-sixth of the electricity generated worldwide is based on technologies from Siemens Energy. Siemens Energy employs more than 90,000 people worldwide in more than 90 countries and generated revenue of around €27.5 billion in fiscal year 2020. www.siemens-energy.com.