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Project

Moss Landing Battery Storage Project

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Project Type :	Location :	Capacity :	Developer :
Battery energy storage system (BESS)	Moss Landing power plant, Monterey County, California,	Phase one: 300MW, Phase two: 100MW	Vistra Energy Corporation

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Moss Landing battery storage project is a massive battery energy storage facility being constructed at the retired Moss Landing power plant site in California, US. It is expected to become the biggest

RECOMENDED COMPANIES

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battery storage project in the world upon completion.

Vistra Energy is developing the project in two phases under separate resource adequacy agreements with Pacific Gas and Electric Company (PG&E).

Construction is currently underway on phase one of the project, which is scheduled for commercial operation in December 2020. It includes the development of a 300MW battery energy storage system (BESS) at the existing Moss Landing power plant site, which was originally built by PG&E in Monterey County.

Vistra Energy plans to begin construction on the 100MW phase two of the project by the end of 2020, upon receiving necessary approval from the California Public Utilities Commission (CPUC). Expected to be operational by the end of 2021, phase two will increase the total battery storage capacity at the site to 400MW.

PROJECT GALLERY

The Moss Landing battery energy storage project is expected to begin c December 2020. Image courtesy of David Monniaux.

Moss Landing BESS project background

The initial development of the project was undertaken by Dynegy Marketing and Trade (Dynegy) which was merged with Vistra Energy in April 2018.

Vistra Energy announced its plans to develop a battery storage project at the retired Moss Landing gas-fired power plant site with utility-grade lithium-ion batteries in the South Bay Moss Landing Pease sub-area.

The BESS project is a part of the four different battery energy storage projects proposed by PG&E at the Moss Landing site.

PG&E, under resolution E-4909, organised a competitive solicitation ordered by the CPUC in January 2018. The company issued local sub-area energy storage request for offers as part of CPUC's resolution.

In June 2018, PG&E submitted a proposal to the CPUC for a 20-year energy storage (https://www.nsenergybusiness.com/projects/minety-battery-storage-project/) resource adequacy agreement (ESRAA) with Vistra Energy for Moss Landing BESS. The CPUC granted approval for the contract in November 2018.

Vistra Energy proposed to expand the existing Moss Landing energy storage facility by an additional 100MW capacity in May 2020. The company entered a ten-year resource adequacy agreement pertaining to the Moss Landing BESS capacity expansion with PG&E in the same month. The contract is due to receive approval from the CPUC.

Moss Landing battery storage project make up

The phase one of the Moss Landing BESS consists of a modular, fully integrated, pad-mounted lithium-ion 300MW battery energy storage system which will be capable of holding 1,200MWh of electricity. The batteries will have a discharge duration of four hours.

Being constructed in the existing premises of gas power plant, the Moss Landing BESS will utilise the existing turbine building for the placement of batteries. It will also use the existing interconnection from the mothballed Moss Landing units 6 and 7.

The other components of the battery storage project include medium voltage switchgears, power transformers, and underground cable systems, high voltage circuit breakers, along with dead-end structures.

The phase two of the project, called the Vistra Energy Moss100 Energy

project, will also employ utility-grade lithium-ion batteries for additional power storage.

Moss Landing battery storage power evacuation

The power generated from the battery energy storage project will be connected to the California Independent System Operator (CAISO) grid via the existing 500kV substation at the Moss Landing power plant.

Contractors involved

PG&E entered into a contract with Vistra Energy for the development of Moss Landing BESS in 2018.

Luminant, a subsidiary of Vistra Energy has been engaged for the construction of Moss Landing battery storage system project.

Merrymack Energy Group was engaged by PG&E as an independent evaluator for evaluation of local sub-area energy storage request for offers in 2018.