

# THE GEYSERS: CALPINE'S BATTERY ENERGY STORAGE ENHANCING GRID RELIABILITY ACROSS CALIFORNIA



Calpine is at the forefront of California's clean-energy revolution, investing in battery energy storage projects statewide to bolster grid reliability and support the transition to renewable energy sources. With a total of 2,000 megawatts of battery energy storage systems (BESS) operating or in advanced development, Calpine is playing a pivotal role in securing California's energy future.

## What is Battery Energy Storage?

Battery energy storage is a reliable, cost-effective method of storing excess energy during periods of high supply and low demand, releasing it during peak demand times to maintain grid stability and prevent service disruptions like power outages.

### STEP 1: PRODUCE ENERGY



Energy is produced from power plants and, at times, supply is higher than demand.

### STEP 2: CHARGE BATTERIES



Excess energy is delivered to a battery energy storage system.

### STEP 3: DELIVER ENERGY



When demand for energy rises, batteries release stored energy to deliver reliable service to homes and businesses.

## Storing Renewable Energy

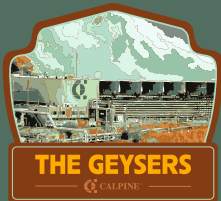
Renewable energy from sources like solar and wind is intermittent, often unable to meet peak demand. BESS address this challenge by storing excess energy from renewables and releasing it when demand is highest.



## About Calpine

Calpine Corporation is America's largest generator of electricity from natural gas and geothermal resources with operations in competitive power markets. Our fleet of 79 energy facilities in operation represents over 27,000 megawatts of generation capacity. Through wholesale power operations and our retail businesses, we serve customers in 22 states and Canada. Our clean, efficient, modern and flexible fleet uses advanced technologies to generate power in a low-carbon and environmentally responsible manner. We are uniquely positioned to benefit from the secular trends affecting our industry, including the abundant and affordable supply of clean natural gas, environmental regulation, aging power generation infrastructure and the increasing need for dispatchable power plants to successfully integrate intermittent renewables into the grid.





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## Battery Energy Storage System (BESS) at The Geysers

In 2024, Calpine added two projects at The Geysers totaling 38-megawatts. Bear Canyon Energy Storage is a 13-megawatt BESS and the West Ford Flat Energy Storage is a 25-megawatt BESS project, both located on repurposed geothermal power plant sites.

Both are a typical BESS design, with equipment "containerized" in various units, and use direct current (DC) Lithium-ion batteries. These projects will utilize the existing 230kV interconnection equipment and transmission lines that had been previously used by the geothermal facilities.

Installation for both projects was performed under a Project Labor Agreement with the appropriate building trades providing additional civil, electrical and mechanical construction jobs. The projects are front-of-the-meter and charge from the grid, and are not connected or impactful to The Geysers geothermal energy output. They provide critical Northern California grid reliability.

## SAFETY IS A CORE VALUE AT CALPINE

We put safety first in everything we do. Together, these projects comprise 42 Tesla Megapacks, battery energy storage systems designed with integrated software controls and safety systems—operating safely, as certified and tested—to support grid reliability.



[www.calpine.com](http://www.calpine.com)  
[www.geysers.com](http://www.geysers.com)

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