

BATTERY ENERGY STORAGE AT CALPINE: ENHANCING GRID RELIABILITY ACROSS CALIFORNIA



Calpine is at the forefront of California's clean energy revolution, investing in battery storage projects statewide to bolster grid reliability and support the transition to renewable energy sources. With a total of 2,000 MW of battery storage in 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: ENERGY PRODUCED



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 power is intermittent, often unable to meet peak demand. Battery energy storage systems address this challenge by storing excess energy from renewables and releasing it when demand is highest.



NOVA POWER BANK

Location: Menifee, California

Capacity: 680 MW upon completion, powering 680,000 homes for up to 4 hours

Communities Served: Statewide

Timeline:

- Phase I-IV: 620 MW in 2024
- Phase V: 60 MW in 2025

Nova Power Bank, Calpine's flagship battery storage facility, is set to become one of the largest in the world upon completion. Using lithium-ion chemistry technology, Nova will provide critical grid reliability and support statewide demand periods. The storage capacity at Nova will be utilized by Southern California Edison, Peninsula Clean Energy, and San Diego Gas & Electric, benefitting residents across the state.

Construction

Constructed under a project labor agreement, Nova Power Bank is being constructed by Mortenson and includes 1,200 battery containers supplied by BYD.
