

BATTERY STORAGE 101



Renewable power generation is most commonly associated with wind and solar power.

Although these are clean and renewable sources of electricity, they can also be unreliable since they don't produce any power when it gets dark or the wind stops blowing. As these power sources become more important to our energy economy, so does investment in technologies that allow energy producers to store energy that is generated during these times.

Let's imagine that the wind suddenly drops, or a large cloud passes over a solar generation facility. During such an event, the amount of energy generated will instantly decrease. If this happens too quickly, the balancing systems in traditional grids are often unable to compensate, and a blackout can occur. EnerSmart's projects lower this risk by being able to provide continuous voltage support to the transmission grid, by putting power on the line when supply suddenly drops, or by taking power off the line when there is oversupply by charging the battery. There are already several examples of batteries that are used to store renewable energy, and they are growing across California and the rest of the U.S. markets.

EnerSmart's battery systems are highly versatile, and they have an important role to play in the future of energy storage and distribution. Our battery storage projects consist of approximately 25 battery power packs stored inside two containers, and require approximately 2,500 square feet of land. Each system stores approximately three megawatt hours of power, and is used to:

- Allow more renewable energy to be placed on the electrical grid by helping stabilize the transmission system, playing a crucial role in California's goal to achieve 100% renewable power by 2045. EnerSmart's projects have no emissions, and no negative environmental or air quality impacts.
- Help levelize and lower the overall cost of power. Our projects provide more electricity to the grid during expensive periods of high demand, by charging during periods of lower cost electricity when there is lower demand.
- Help stabilize the local grid. Planning for emergency backup power is an essential part of a resilience plan. EnerSmart's projects are highly reliable and decrease the likelihood of a local power outage by providing frequency stability to the transmission system, and being able to deliver power if there is a blackout.

