



# Battery Energy Storage Systems Fact Sheet (BESS)

## Major Benefits of Battery Storage

**Keeping the power on.** Battery storage systems improve the reliability of the local and regional electrical grid. Placed near substations that receive power from a local or regional energy source and funnel it out to our homes and schools, battery systems can respond to changes in demand or supply within milliseconds, ensuring that the lights stay on if another power source fails.

**Lower electric bills.** Energy bills are only continuing to rise over time. Luckily, battery storage systems get charged up when energy is cheap, and then are used during peak hours when it's more expensive, reducing peak usage charges and lowering electricity bills overall.

**Revenue for town services.** Battery storage projects boost local economies by creating jobs and demand for local goods during construction. Once operational, they provide stable, long-term property tax revenue for local governments, funding improvements for roads, fire departments, and schools.

**Supercharging renewable energy.** By taking in electricity when it's generated and holding it until it's needed, battery storage systems are a critical component of a 100% renewable energy grid and getting our country off the fossil fuels that are the primary source of climate pollution.

**Cleaner air.** Many electrical grids across America rely overwhelmingly on outdated gas and coal-fired power plants that pollute our air, water, and climate. Battery storage projects will bring immediate reductions in our reliance on these polluting plants and help our communities breathe easier.



## WHAT ARE BATTERY ENERGY STORAGE SYSTEMS?

Battery energy storage systems (BESS) are advanced technologies that store electrical energy in batteries for later use, capturing energy from sources like solar panels or wind turbines. These systems are crucial for a cleaner, smarter, and more reliable power grid, replacing the need for expensive gas- and coal-powered “peaker” plants that struggle during extreme weather. BESS act as backup generators, ensuring power stability during disruptions caused by severe storms or heat waves.

## Battery Storage FAQs

### Is battery storage safe?

Yes, battery storage systems are very safe. These systems must adhere to strict federal, state, and local safety requirements for power plants. BESS uses the same technology found in many widely used consumer products, tools and electric vehicles. Each system is equipped with automatic fire suppression equipment, and its own air conditioning or cooling system to ensure it operates within the ideal temperature range. Fires involving BESS can occur, but only in extreme conditions. Developers work with local fire departments and emergency responders to ensure they have adequate training and equipment to respond to any safety issues that may arise.

### Why locate a battery storage facility near homes, hospitals, and schools?

The reality of battery storage is that it is most useful to what it is closest to. To get the full benefit of battery storage—a cleaner, cheaper, more reliable power grid—the storage facilities need to be located near power substations, the local nodes of the grid, and that means putting them near where people live and work. Many critical infrastructure sites around the country like hospitals are themselves installing their own microgrids, including battery storage, for just this reason. Simply put, the benefits of having battery storage near homes and civic infrastructure outweigh the risks.

## Battery Storage Is Growing Quickly In America

### DOUBLING BATTERY STORAGE

Research shows that the total U.S. battery storage capacity is expected to double in 2024 alone.

### 5 YEARS OF EXPONENTIAL GROWTH

By 2030, the U.S. is projected to have 98GW of storage capacity—almost 10,000% growth from 2019.

### SOURCES

[“Clean energy storage facts,”](#) cleanpower.org

[“U.S. battery storage capacity expected to nearly double in 2024,”](#) eia.gov

