# 1 Terawatt-Hour of Flexibility & Efficiency

ENERGY STORAGE COALITION

## ENERGY STORAGE ON AMERICA'S POWER GRID IN 2032

**1 Terawatt-Hour**
Energy Capacity

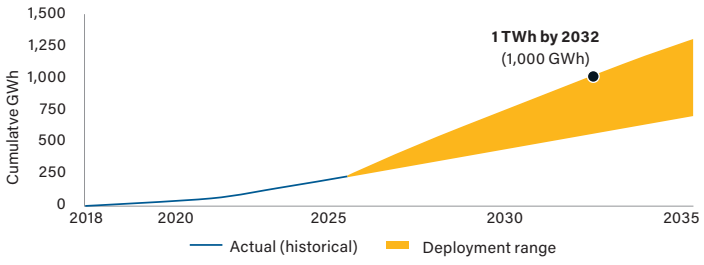
**225 GW**
Power Capacity

## The 2032 Outlook: Building Toward 225 GWs and 1,000 GWh of Energy Storage Capacity

Energy storage is increasingly being built because the American power system needs what it can provide: fast, flexible capacity that can be deployed quickly, strengthen reliability, reduce costs, and make better use of the generation and grid infrastructure already in place. As electricity demand accelerates and the value of flexibility increases, storage is moving from a complementary grid resource to a fundamental component of how America builds and operates its power system.

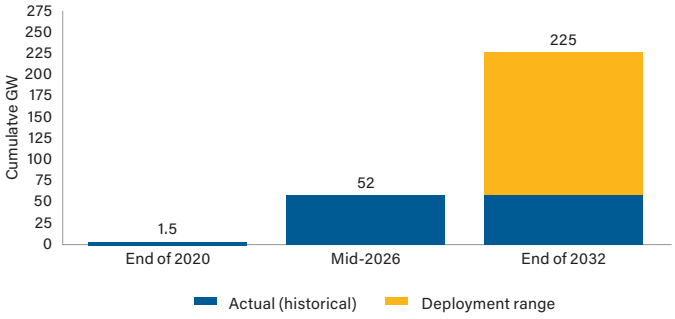
The U.S. energy storage industry has undergone one of the fastest expansions of any part of the American power sector. In just a few years, energy storage has moved from an emerging technology to a foundational backbone and Swiss Army knife of the American power grid. The question for the industry is no longer whether energy storage will play a significant role in the American power system, but how quickly it can scale to meet the country's growing need for affordable, reliable power.

### Cumulative Installed Storage Capacity (GWh)




Historical actuals (2018-2025) plus a range of deployment range scenarios through 2035, assessed based on cumulative estimates from Wood Mackenzie, ACP, BNEF, McKinsey & Company, Baringa Partners, Aurora, and E3. Cumulative GWh, U.S. total.

### Cumulative Installed Storage Capacity (GW)




## Why the U.S. grid-scale energy storage market is poised to accelerate:

### The grid needs more flexibility

The power system is more dynamic: electricity supply and demand change more rapidly, renewable generation has expanded, and grid operators increasingly need resources that can respond instantly, shift power across hours, and provide capacity when it is most valuable. Storage is uniquely capable of doing all three.

### America needs more power and needs it faster

After decades of relatively flat electricity consumption, load growth from manufacturing, electrification, AI, and other large power users is creating an urgent need for new capacity. Storage can be deployed quickly, help unlock constrained grid capacity, and make existing generation and transmission infrastructure work harder while longer-lead infrastructure catches up.

### Storage makes the power system more affordable

Storage is increasingly valuable because it can replace expensive peak power, reduce price spikes, defer costly grid investments, and get more capacity from infrastructure already paid for by consumers. Rather than solving each grid need with a separate investment, storage can provide capacity, energy, congestion relief, and essential grid services from the same asset.

# Delivering Affordable Electricity for America

## Energy Storage Will Drive Significant Cost Savings

Energy storage has proven to deliver more affordable electricity by making the entire power system more efficient and productive. **By soaking up excess electricity that would otherwise be wasted, energy storage can essentially supply the most expensive periods of power generation with low-cost energy reserves.** The result is a power system that can serve more demand with the infrastructure already in place, reducing total system costs and protecting consumers.

### RAPIDLY SCALING ENERGY STORAGE DELIVERS SIGNIFICANT COST SAVING

**$250 Billion**

Estimated Cumulative Energy System Cost Savings for the U.S. Power Grid

**$1,550**

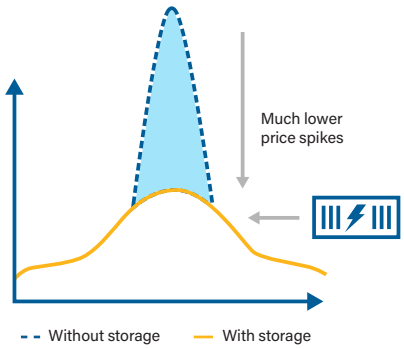
Estimated Cumulative Energy System Cost Savings Averaged Across America's 160+ Million Ratepayers

## How Energy Storage Delivers Cost Savings and Electricity Affordability

Power grid scenario modeling finds that broadly scaling energy storage deployment over the next decade could reduce the cost of building and operating a reliable U.S. power system by more than $250 billion over the next decade, compared to alternative scenarios where energy storage deployment is constrained. That estimate may prove conservative: storage can also suppress wholesale price spikes, reduce congestion and peak demand, defer transmission and distribution upgrades, and lower other grid operating costs — benefits that can extend beyond those fully captured in long-term capacity-expansion modeling.

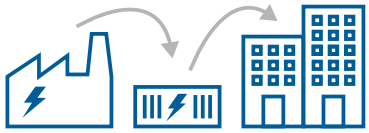
See pages 7, 8, and 17 for more information about power grid scenario and cost modeling.

### 1 LOWER THE COST OF PEAK DEMAND




### 2 AVOID OR DEFER EXPENSIVE INFRASTRUCTURE

### 3 GET MORE FROM THE EXISTING GRID



### Flexible, Dispatchable Capacity

Storage charges when electricity is abundant and inexpensive and discharges when demand and prices are highest. That reduces reliance on the most expensive generation and lowers peak-driven capacity and energy costs.

### Faster, Cheaper, and Smarter

Storage can relieve congestion and serve growing demand without immediately building new transmission, distribution, or generation infrastructure. This reduces capital costs that ultimately flow through to customer bills.

### More Value from the Grid

Storage shifts electricity across time and provides flexibility, allowing existing power plants and transmission lines to operate more efficiently and at higher utilization. In effect, storage increases the usable capacity of the grid without requiring an equivalent increase in physical infrastructure.

# The Market Outlook U.S. — Energy Storage Deployment

Utility-scale battery storage capacity has increased from 1.5 GW at the end of 2020 to nearly 52 GW by mid-2026. This represents a 35-fold increase in roughly five and a half years, or 3,400% growth. The industry installed a record 18.9 GW across all market segments in 2025 alone, 52% more than the previous year. And the market continues to expand. Another 3.3 GW was installed in the first quarter of 2026, the strongest first quarter on record.

As the global supply chain for battery storage has matured, including the rapid rise of battery factories in the U.S., the technology has become increasingly the most cost-effective megawatt of capacity you can add to the power grid. Yet, many applications and power grid services that energy storage can provide are not fully integrated into utility planning and regional electric grid market operations. As energy storage sees increased deployment, broader applications, and growing value, market outlooks indicate the technology is on track for sustained growth.

## U.S. Energy Storage Market Expected to Grow Over Next Decade

Energy storage deployment growth across the United States relies on many factors that contribute to the pace and scale of deployment, including regional demand for power, supply chain constraints for energy technologies and other energy infrastructure, market design and state policy, and technology costs.

This market outlook is based on an assessment of numerous independent market reports that provide a range of anticipated energy storage deployment in the United States.

**Aiming for 1 TWh and 225 GW of energy storage capacity by 2032** would represent a more than **300% increase in power capacity and a 500% increase in energy capacity** for energy storage resources over the next five years.

**Energy storage capacity will reach more than 20% of current U.S. peak electricity demand.**

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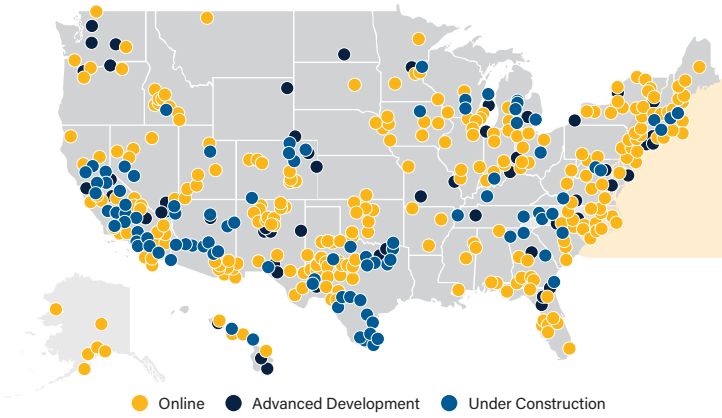
This represents a **35-fold increase** in roughly five and a half years, or **3,400% growth**.




**Reaching 1 TWh by 2032 of installed energy storage capacity** requires a more than **25% annual growth rate** from mid-2026 deployment levels.

**Energy storage resources are currently operating or planned in all 50 American states.** Over the next decade the outlook anticipates significant geographic diversification.

**225 GW of energy storage capacity** could provide peak power supply to the entirety of **Texas, California, Florida, and Michigan combined**.