

# Energy Storage Lowers Electricity Costs & Reduces Ratepayer Bills

Energy storage technologies are uniquely positioned to reduce energy system costs and, over the long-term, lower rates for consumers by:

- **Optimizing the grid;**
- **Bolstering reliability; and**
- **Enabling a clean grid.**



## How does storage reduce energy costs?

- 1 Supports the integration of more wind and solar generation:** Wind and solar are the cheapest sources of electricity. Energy storage supports the integration of higher and higher shares of renewables, enabling the expansion and incorporation of the most cost-effective sources of electricity generation.
- 2 Reduces energy waste:** Energy storage can help eliminate energy waste and maximize the benefits of renewable energy. Energy storage is the only grid technology that can both store and discharge energy. By storing energy when there is excess supply of renewable energy compared to demand, energy storage can reduce the need to curtail generation facilities and use that energy later when it is needed.
- 3 Improves grid efficiency:** Energy storage is instantly dispatchable to function both as generation and load, so it can help the grid adjust to fluctuations in demand and supply, which optimizes grid efficiency, alleviates transmission congestion, and increases grid flexibility. This reduces overall system costs.
- 4 Limits costly energy imports and increases energy security:** Energy storage improves energy security and maximizes the use of affordable electricity produced in the United States.
- 5 Prevents and minimizes power outages:** Energy storage can help prevent or reduce the risk of blackouts or brownouts by increasing peak power supply and by serving as backup power for homes, businesses, and communities. Disruptions to power supply can be extremely costly and hazardous to health and safety. Energy storage makes the grid more resilient and reliable.