

Energy Storage is Key to Grid Reliability and Energy Cost Savings in the Midwest and Central United States

A [new report](#) by Aurora Research, commissioned by the American Clean Power Association, demonstrates a significant opportunity to strengthen grid reliability and lower energy system costs by deploying energy storage at scale across the Midcontinent Independent System Operator (MISO) region which spans the Midwest and Central United States.

Batteries provide instant dispatchable energy and complement renewable and thermal generation, balancing the grid and enhancing flexibility. Analysis of other electric markets shows that battery energy storage systems (BESS) benefit reliability by dispatching at times of highest system stress while freeing up thermal generation to more efficiently operate as base power. As renewable generation grows, batteries charge when there is excess, low-cost energy and discharge during peak demand, effectively shifting generation to times when it is needed most.

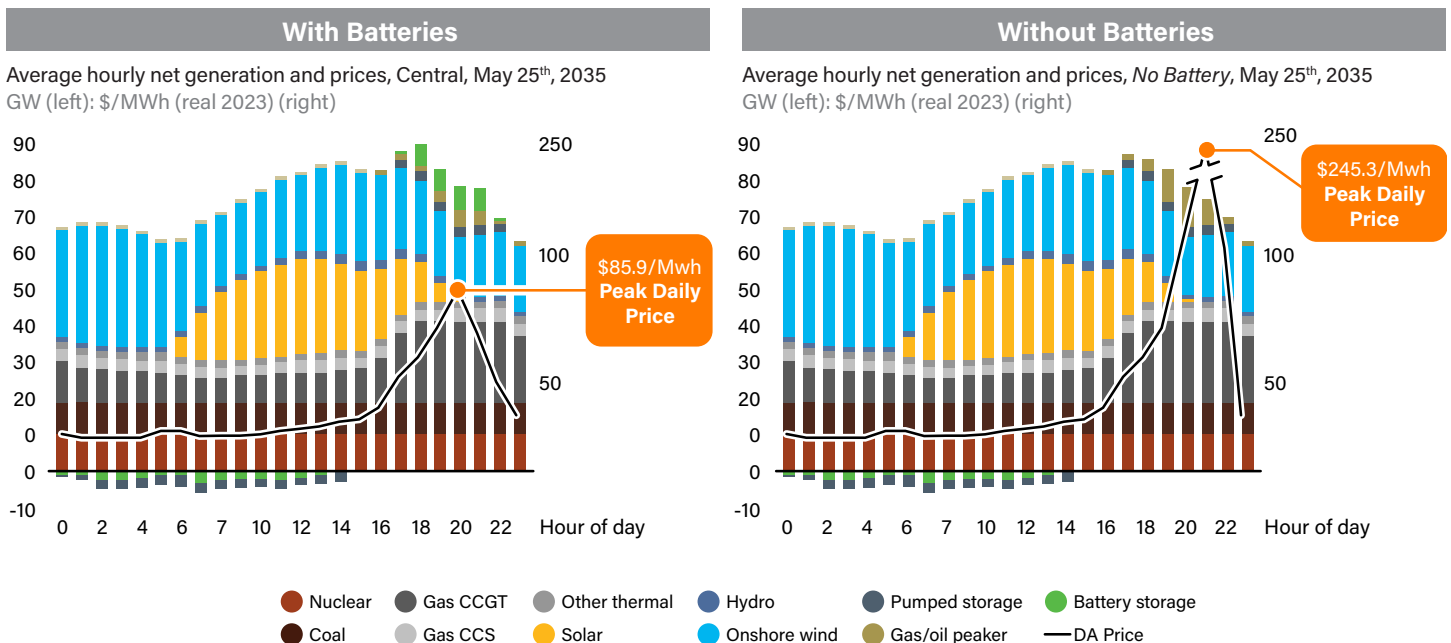
10 GW of batteries in MISO could deliver billions of savings in energy costs

Deploying more than 10,000 megawatts of energy storage between 2025 and 2035 will ensure that Midwestern and Central U.S. states have reliable power, particularly as the economy grows and demand for power rises. Normally, investments in reliability result in higher energy costs – but deploying energy storage could help the region save more than \$4.5 billion by 2035. **Over the next two decades, energy storage resources could generate more than \$25 billion in energy cost savings.**

By 2035 energy storage could cut evening energy price spikes by more than 60%

Without battery storage, modeling shows that peak electricity prices during high-demand hours would be up to \$159 per megawatt-hour (MWh) higher by 2035. The analysis also estimates that greater reliance on one type of legacy energy infrastructure could add \$493 million in electricity costs. In a future without energy storage, the daily electricity price could spike almost 3 times higher than if the region builds out energy storage capacity.

By 2035, the additional battery capacity significantly lowers evening price spikes on peak demand days

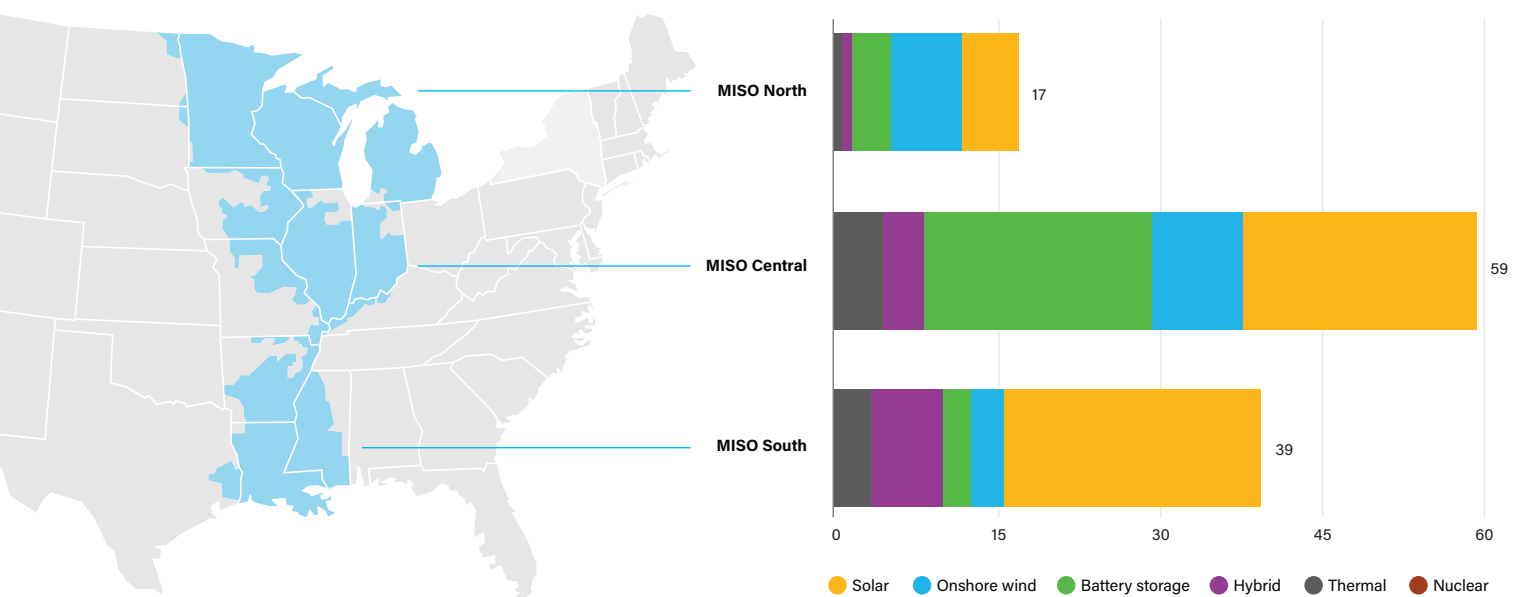


Deploying 10+ GW of energy storage over the next decade is critical to reliability

As demand in Midwestern and Central U.S. states grows at a historic pace, energy storage will need to be deployed to both meet new demand for power and keep the lights, AC, and other essential services on for households, hospitals, schools, and businesses. Modeling demonstrates that rapidly scaling the deployment of energy storage resources can make the regional power grid more flexible and efficient. Storage enables the grid to function effectively during periods of high stress and still deliver low-cost power — like during summer heat waves or winter blizzards. Energy storage is unique in its ability to both firm and balance renewable generation like wind and solar, while also optimizing and boosting the efficiency of thermal power plants and legacy grid infrastructure. Failure to deploy energy storage could risk regional grid reliability, including dangerous blackouts and brownouts, and could significantly hamper economic growth.

More than 25 GW of batteries entered the MISO interconnection queue in 2024

There are hundreds of energy storage projects in the MISO project queue, working through the interconnection and permitting process. These projects represent billions of dollars in economic investment and energy infrastructure upgrades, thousands of jobs, and billions of dollars in energy cost savings for everyday families. These grid batteries can be quickly built to meet reliability needs and start producing energy savings — but several barriers continue to delay projects. To realize the benefits of energy storage, the regional grid operator MISO and state policymakers need to make policy changes.



Policy & regulatory changes to deliver a reliable & low-cost power grid

Update electricity market rules to fairly value flexible energy storage resources. Batteries are agile resources that provide power to the grid when it's needed most. Energy storage provides unique value and the market should recognize and enable their benefits with accurate capacity accreditation (ELCCs).

Accelerate interconnection to eliminate unnecessary delays in connecting new energy storage resources to the grid. Batteries are available now and can be built and brought online quickly, but lengthy bureaucratic process can force shovel-ready projects to wait years just to connect to the grid.

Streamline and clarify permitting at the state and local level to ensure that new energy infrastructure can be built safely, responsibly, and quickly. Consistent rules for permitting energy storage projects can help lower project costs, enforce uniform standards, and create more certainty for all stakeholders.

Advance state targets and procurements that demonstrate commitment to building new energy infrastructure like energy storage. These programs are essential for driving investments and ensuring states have the resources they need to keep the lights on and keep energy costs low.