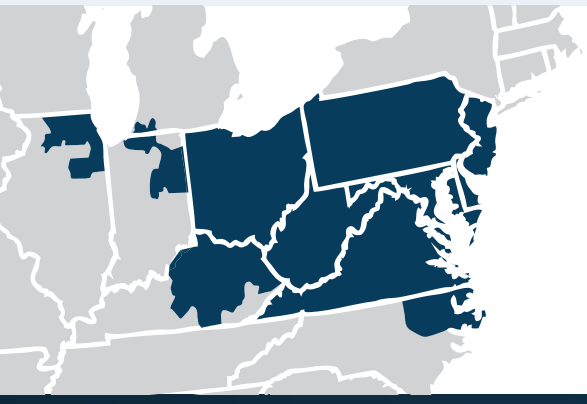
PJM REPORT FACT SHEET

Energy Storage is Critical to Maintaining Power Grid Reliability in the Midwest and Mid-Atlantic Regions of the United States.

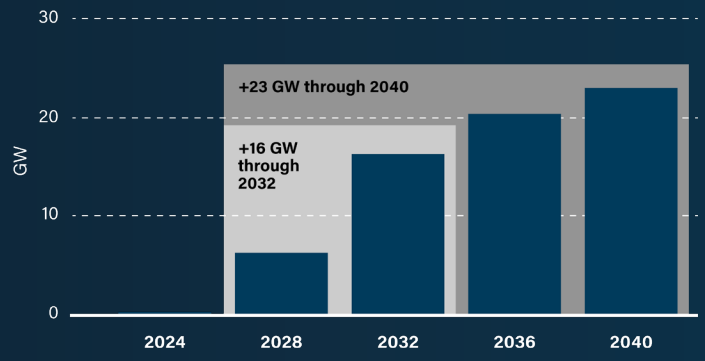
A new report by The Brattle Group, commissioned by the U.S. Energy Storage Coalition, demonstrates the need to deploy energy storage at scale to make sure the grid has enough power to reliably meet demand in the Pennsylvania-New Jersey-Maryland (PJM) Interconnection territory, which spans large swaths of the Midwest and the Mid-Atlantic.



PJM needs to deploy 16 GW of energy storage to maintain grid reliability through 2032

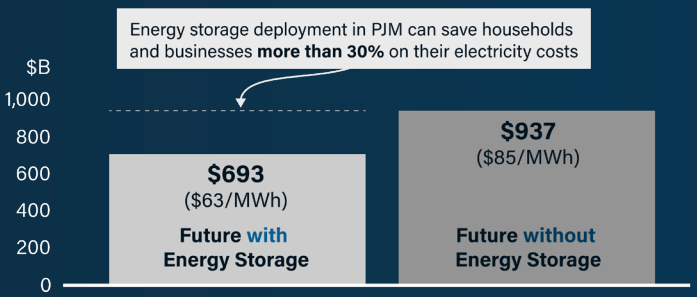
PJM will need to build at least 16 GW of energy storage by 2032 and 23 GW by 2040 to meet rising energy demand in the region. Falling short could result in up to 15 GW of load shed during extreme weather events within the next seven years. That's the equivalent of telling all 9+ million homes in New Jersey and Pennsylvania they won't have power. The rationale for storage deployment in PJM is driven primarily by resource adequacy concerns, not solely by state procurement goals or climate targets.

Total Energy Storage Deployment Needed for Reliability



PJM Customer Electricity Cost

Near-Term Horizon 2028–2036



Without energy storage, PJM will face severe reliability challenges and more than 30% higher costs in the next decade

16 GW of energy storage will help PJM meet reliability requirements and mitigate electricity price increases in the near term. Without energy storage, electricity costs could rise by 34% by 2028. With peak demand projected to grow 3% per year over the next decade, PJM will need to deploy all available forms of generation.

Complements & Enhances Natural Gas Power Plants

Energy storage and gas generation complement each other to maximize baseload power and meet rising peak demand.

- Maximizes energy production during demand swings
- Provides ancillary reliability services
- Frees up natural gas generation for baseload use


Photo credit: Tesla

ENERGY STORAGE COALITION

Learn more at EnergyStorage.org

Policy Changes to Unlock Energy Storage in PJM and Deliver a Reliable & Low-Cost Power Grid

To realize the full benefits of storage, both PJM and state policymakers can streamline approval processes and advance policy solutions such as:

1. **Accelerating interconnection approvals** to eliminate unnecessary delays in connecting new energy storage resources to the grid.

2. **Reforming market rules to harness the full potential of energy storage** ensuring that it can provide the full range of services it is designed to deliver. These reforms include
   - **Enabling energy storage to respond to grid needs in real-time** by adopting opportunity cost bidding reforms that free up the resource to provide maximum value to the grid.
   - **Utilizing the instantaneous response & flexibility of energy storage** resources through revised effective day ahead and real-time uncertainty products.
   - **Clarifying transmission charges** by removing ambiguity around when storage must register as a transmission customer and how associated charges are applied.
   - **Adequately value energy storage resource adequacy contributions** in PJM's capacity accreditation should also value energy storage's reliability contribution comparably to other resources, avoiding structural disadvantages.

3. **Streamlining and clarifying permitting at the state and local level** to ensure new energy infrastructure can be built quickly, safely, and responsibly. Consistent standards for permitting energy storage projects can help lower costs and reduce project development timelines.

Photo credit: Evio