

# Synchronized Reserve Requirement for Reliability – Update

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PJM Operating Committee March 6, 2025 UPDATE – May 8, 2025



#### OATT Attachement K – Appendix, Section 1.7.19A(b), Page 4,210:

"The Office of the Interconnection shall obtain and maintain for each Reserve Zone and Reserve Sub-zone an amount of Primary and Synchronized Reserve equal to the respective Primary Reserve Requirement and Synchronized Reserve Requirement objectives for such Reserve Zone and Reserve Sub-zone, as specified in the PJM Manuals."

**Synchronized Reserve Requirement:** "Synchronized Reserve Requirement" shall mean the megawatts required to be maintained in a Reserve Zone or Reserve Sub-zone as Synchronized Reserve, absent any increase to account for additional reserves scheduled to address operational uncertainty. **The Synchronized Reserve Requirement is** calculated in accordance with the PJM Manuals.



PJM M13, Section 2.2 "Reserve Requirements," Page 19:

"PJM schedules sufficient Contingency Reserves to satisfy the Reliability First (RF) Regional Criteria. Contingency Reserves shall not be less than the largest contingency. Contingency Reserves must be made up of at least 50% Spinning Reserves. No more than 33% of Contingency Reserves should be interruptible load. (NERC Standard BAL-002-3)"



### Timeline and Updates



#### **May 2023**

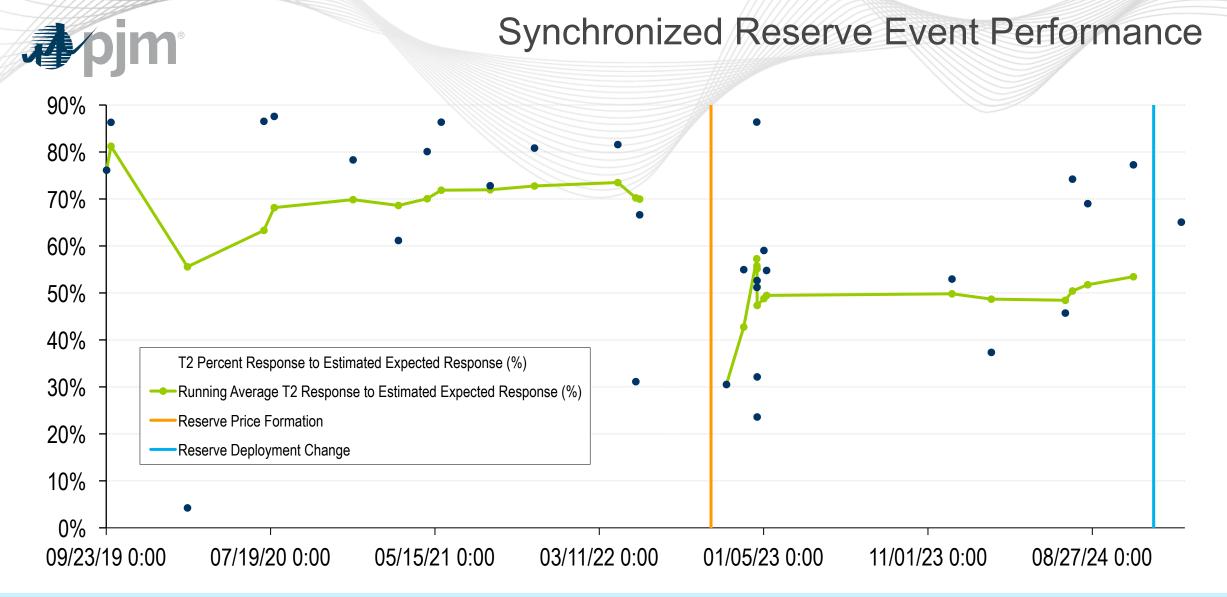
Synchronized & Primary Reserves updated to 130% of the largest unit.



#### December 2024

Synchronized Reserve AGC code deployed.

2025



Note: Average Synchronized Reserve performance has reduced from 70% pre-price formation to 54% post-price formation implementation.



- 1 Starting Jan. 1, 2025, PJM Performance Compliance will evaluate and average performance after 3 qualifying Synchronized Reserve events
- **2** Qualifying Events will be:
  - Any Synchronized Reserve event lasting 10 minutes or more
  - Any Synchronized Reserve event (regardless of length) where the assigned reserve resources response performance is at least 75% of total assignment
- Goal is to reliably reduce the 30% adder while maintaining pre-Reserve Price Formation performance of 70% (October 1, 2022) or greater.



### **Good Performance**

Three averaged qualifying events with greater than 75% performance

Reduce additional reserve adder for Synchronized Reserves by 10% of the largest contingency.

Three averaged qualifying events with greater than 85% performance

Reduce additional reserve adder for Synchronized Reserves by 20% of the largest contingency.

Three averaged qualifying events with greater than 95% performance

Reduce additional reserve adder for Synchronized Reserves by 30% of the largest contingency.

<sup>\*</sup>Synchronized Reserves shall not be less than 100% of largest contingency.

<sup>\*</sup>Primary Reserves will be adjusted as the Synchronized Reserve requirement is changed and will be set at 150% of the Synchronized Reserve Requirement



### Three averaged consecutive qualifying events with lower than 70% performance

- Increase additional reserve adder for Synchronized Reserves by 10%.
- Not to go above 130% of largest unit



### PJM Performance Compliance will continue to provide monthly updates to the OC of Synchronized Reserve performance.

Performance percent can be adjusted monthly; however, PJM Operations can adjust sooner if performance is poor.

Market Monitor will continue to follow up with poor performers.

PJM will notify members of any adjustment to the reserve requirements

RCSTF will evaluate design considerations for future enhancements.



### Appendix



### Reserve Certainty Implementation

 https://www.pjm.com/-/media/DotCom/committeesgroups/committees/oc/2024/20241108/20241108-item-10---reserve-deployment-updates.pdf



## Synchronized Reserve Requirement for Reliability May 2023

 https://www.pjm.com/-/media/DotCom/committeesgroups/committees/oc/2023/20230511/20230511-item-y----synchronized-reserve-requirement-for-reliability.pdf



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