

Synchronized Reserve Requirement for Reliability – Update

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PJM Operating Committee
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OATT Attachment 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)”



May 2023

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

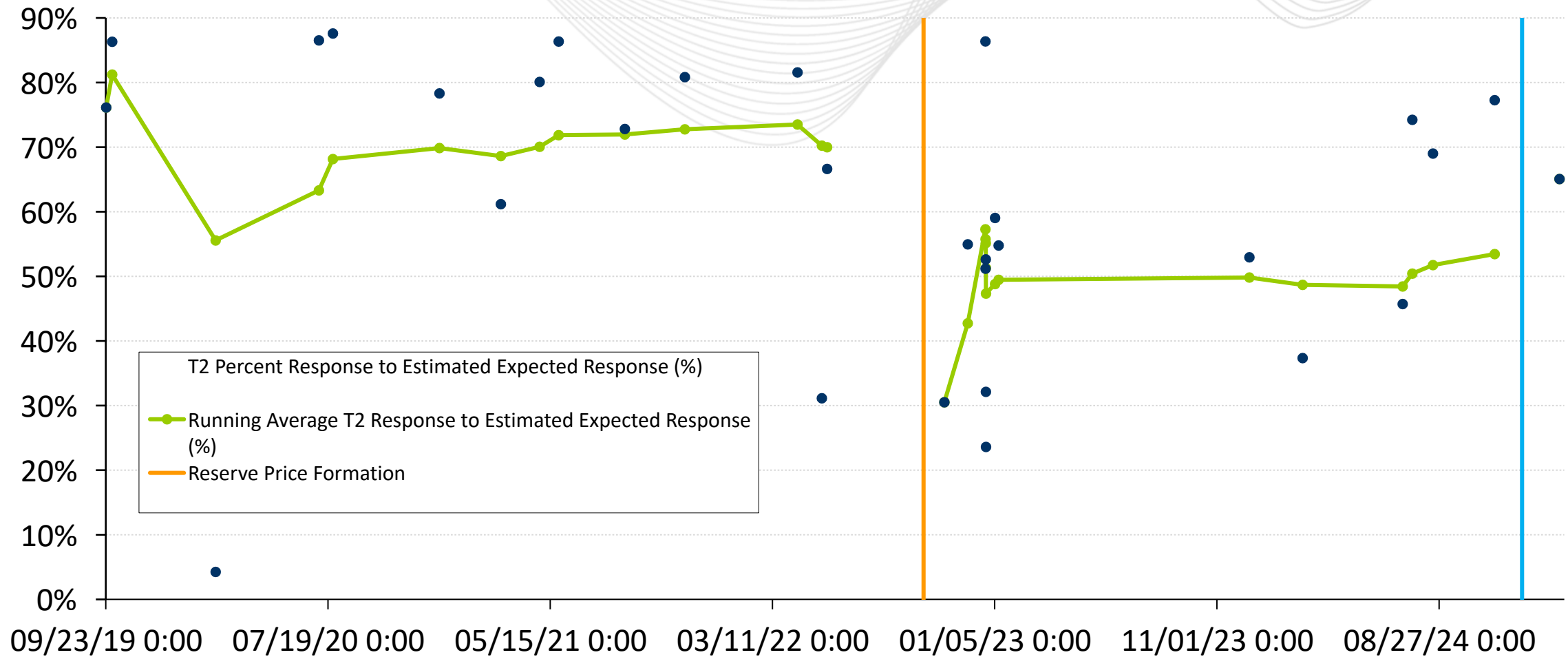


December 2024

Synchronized Reserve AGC code deployed.

2025

Synchronized Reserve Event Performance



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

- 1 PJM Performance Compliance will evaluate performance after every 10-minute or greater Synchronized Reserve events starting from Jan. 1, 2025.
- 2 Evaluation and reserve adjustment will occur after every three 10-minute Synchronized Reserve events. Performance will be averaged.
- 3 Goal is to reliably reduce the 30% adder while maintaining pre-Reserve Price Formation performance of 70% (October 1, 2022) or greater.
 - **Prior to Oct. 1, 2022, Tier 1 resources were compensated for response.**

Three averaged consecutive events – 10 minutes or greater with **greater than 75% performance**

Reduce additional reserve adder for both Synchronized and Primary Reserves by 10%.

Three averaged consecutive events – 10 minutes or greater with **greater than 85% performance**

Reduce additional reserve adder for both Synchronized and Primary Reserves by 20%.

Three averaged consecutive events – 10 minutes or greater with **greater than 95% performance**

Reduce additional reserve adder for both Synchronized and Primary Reserves by 30%.

**Contingency Reserves shall not be less than 100% of largest contingency.*

Three averaged consecutive events – 10 minutes or greater with
lower than 70% performance

- Increase additional reserve adder for both Synchronized and Primary 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.

Manual language will be added to document process.

RCSTF will evaluate design considerations for future enhancements.

Appendix

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

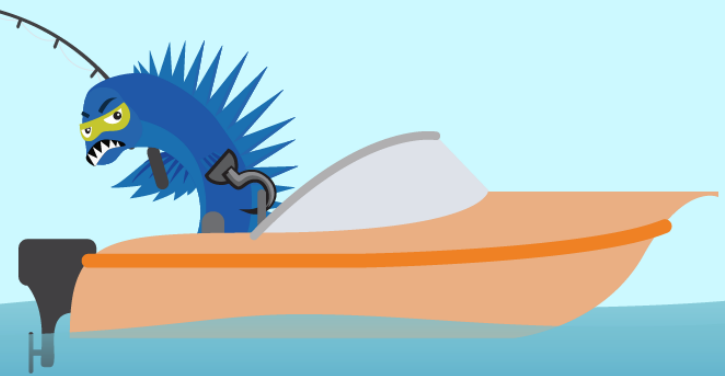
- <https://www.pjm.com/-/media/DotCom/committees-groups/committees/oc/2023/20230511/20230511-item-y---synchronized-reserve-requirement-for-reliability.pdf>

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