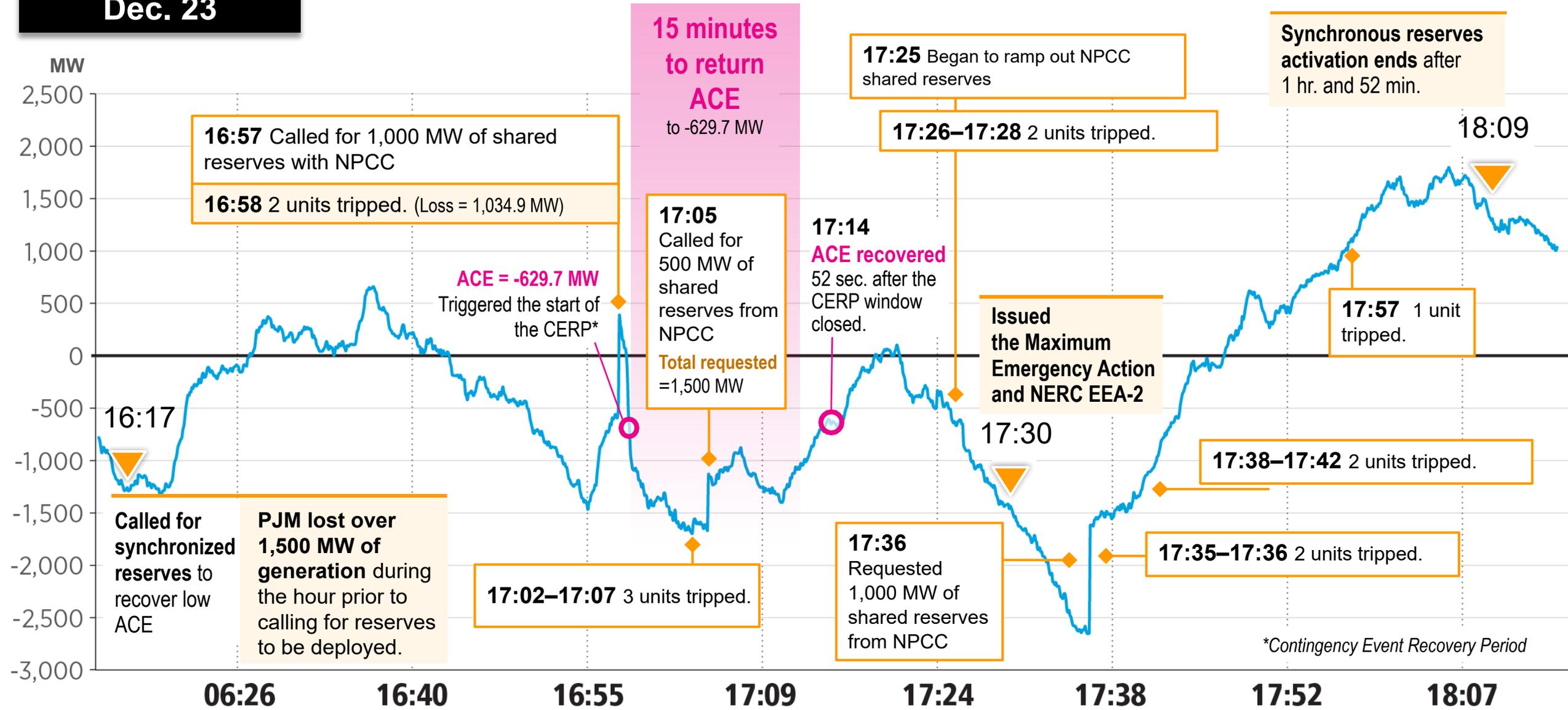




Synchronized Reserve Requirement for Reliability

Donnie Bielak
Sr. Manager, Dispatch
Operating Committee
May 11, 2023

- PJM has concerns with performance of assigned resources during synchronized reserve events after October 1, 2022^[1]
- PJM is required to meet the Disturbance Control Standard (DCS) as outlined in BAL-002-3^[2]
- Generator performance led to a possible DCS violation during the December 23, 2022 operating day



- OATT Attachment K – Appendix, Section 1.7.19A(b) page 4210:
 - “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 M-13 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)”

- The synchronized reserve requirement provision will come into effect immediately
 - Day-ahead 5/11/23 for 5/12/23 operating day
 - Real-time operating day of 5/12/23
- Based on performance rate^[1], PJM will start with an initial assignment of 200% of the single largest contingency for synchronized reserves (double spin)
 - Will adjust as necessary based on generator performance and system conditions
- PJM will continue to follow-up with non-performing generators

- [1] Synchronized Reserve Performance
 - <https://www.pjm.com/-/media/committees-groups/committees/oc/2023/20230209/20230209-item-14---synchronized-reserve-performance.ashx>
- [2] NERC BAL-002-3, Disturbance Control Standard
 - <https://www.nerc.com/pa/Stand/Reliability%20Standards/BAL-002-3.pdf>

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Synchronized Reserve Requirement for
Reliability – **May, 2023**



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