

Synchronized Reserve Performance Inquiry Results

Operating Committee
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Reserve Performance Inquiry on Shortfall – Oct. 17, 2025

- The IMM contacted resources regarding their underperformance during the October 17, 2025, synchronized reserve event.
- The October 17, 2025, event had an 81% response (1,893 MW responded of 2,336 MW deployed, 443 MW did not perform).
- Performance including full response from assigned resources was 102% (2,383 MW).
- Results:
 - 47 resources of interest contacted (90% of total shortfall).
 - So far, 25 resources categorized by primary cause of shortfall, representing approximately 257 MW (58% of the total 443 MW of shortfall initially of interest).

Note: Values can change as communications continue. Numbers may differ from PJM presentations.

Reserve Performance Inquiry on Shortfall – Oct. 28, 2025

- The IMM contacted resources regarding their underperformance during the October 28, 2025, synchronized reserve event.
- The October 28, 2025, event had an 69% response (1,389 MW responded of 2,015 MW deployed, 626 MW did not perform).
- Performance including full response from assigned resources was 89% (1,784 MW).
- Results:
 - 51 resources of interest contacted (87% of total shortfall).
 - So far, 37 resources categorized by primary cause of shortfall, representing approximately 468 MW (75% of the total 626 MW of shortfall initially of interest).

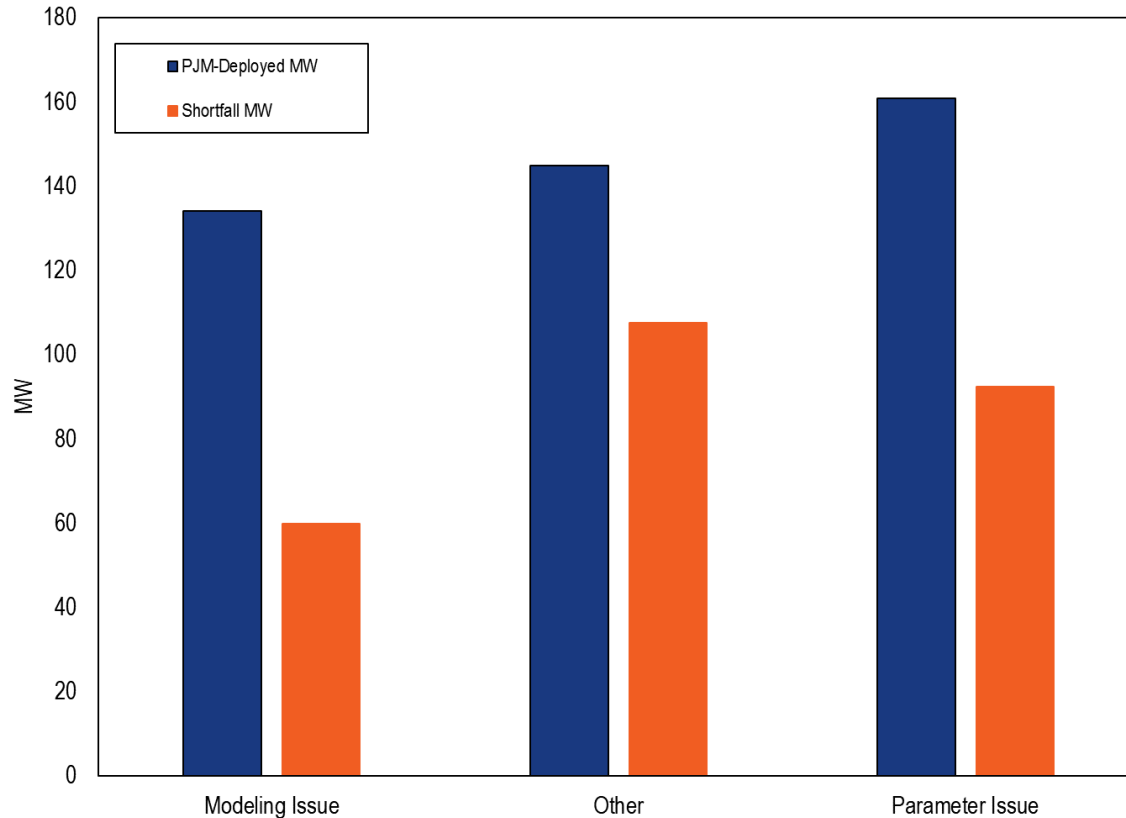
Note: Values can change as communications continue. Numbers may differ from PJM presentations.

Category Definitions

Issue Category	Definition
Communication	Delayed action, mistimed action, failure to act, delayed communication, or failure to communicate by MOC operator or plant personnel after contact/notification
Hardware/Software	Mechanical problems that occur during response; misconfiguration or logic errors in software that deploys the response or manages/monitors the unit; or problems with fuel that limit response
Modeling	Transition time to put equipment into or out of service or time needed to change direction of unit
Parameter	Ramp rates, economic maximums, offer amounts, and other parameters overstated resource ability
Personnel	Incorrect action or lack of action taken by MOC operator or plant personnel after contact/notification. Contact/notification was made, but operator did not know what to do when spin event was called

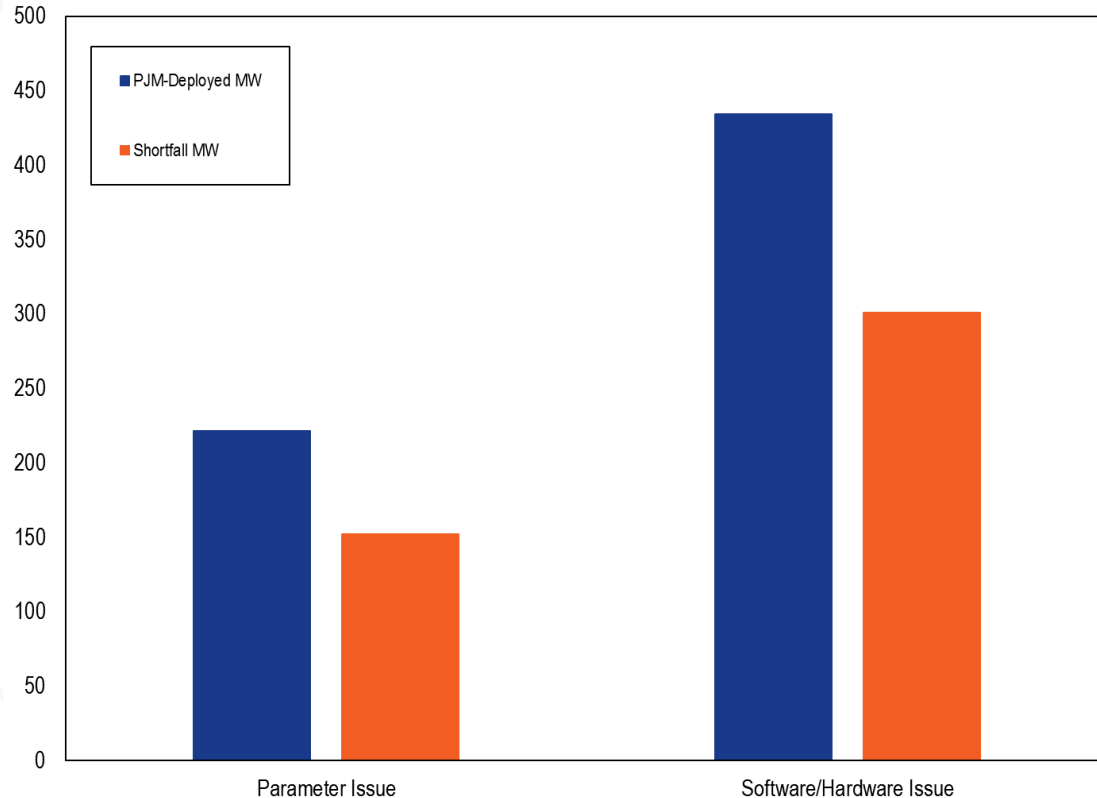


October 17 MW Shortfall by Primary Cause



October 28 MW Shortfall by Primary Cause

(Other causes excluded to comply with confidentiality rules)



Historical Underperformance Causes

Event Date	Communication	Hardware/Software	Modeling	Personnel	Parameter	Total
08/Jul/2024	860.6	85.9	78.1	355.9	271.9	1,652.4
18/Aug/2024	56.3	271.5	49.7	183.2	36.2	596.8
10/Nov/2024	28.2	1.6	107.2	207.1	79.4	423.5
05/Feb/2025	0.0	113.6	54.9	83.1	240.5	492.1
01/Jul/2025	0.0	17.2	211.6	82.0	8.0	318.7
22/Jul/2025	35.5	142.1	178.8	136.8	29.8	523.0
25/Sep/2025	0.1	135.8	34.8	102.2	139.2	412.0



Historical Results

- **Observations:**
 - **Communication issues have been reduced.**
 - **Personnel issues continue to persist. Generation owners / MOC should increase focus on operator training.**
 - Progress reports should be required for poor performers
 - **Parameter issues should be dealt with existing tools (e.g. spin max exceptions, updating ramp rates, ensuring eco max are updated).**
 - Progress reports should be required for poor performers

Event Response Including Full Response from Assigned Resources

Day	Assigned MW	Capped Response MW	Reported Performance	Full Response MW	Full Performance
08-Jul-2024	3,234	1,479	46%	1,621	50%
21-Jul-2024	2,379	1,766	74%	2,079	87%
18-Aug-2024	1,945	1,342	69%	1,672	86%
10-Nov-2024	1,919	1,483	77%	2,330	121%
05-Feb-2025	1,924	1,252	65%	1,623	84%
01-Jul-2025	2,942	2,337	79%	2,933	100%
22-Jul-2025	3,312	2,610	79%	3,304	100%
25-Sep-2025	3,343	2,566	77%	3,297	99%
17-Oct-2025	2,387	1,893	79%	2,397	100%
28-Oct-2025	2,282	1,389	61%	1,847	81%

IMM Recommendation

- **PJM's calculation metric for synchronized reserve performance artificially understates performance.**
- **The IMM recommends that PJM calculate the synchronized reserve performance metrics including the performance of all units assigned reserves.**
- **The IMM recommends that PJM calculate the synchronized reserve performance metrics without capping the performance of over performing units at the assigned reserve amount.**

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