

Operating Reserves Withholding Assumptions: 2027-2028 IRM Preliminary Base Case

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Agenda

- Background
- Methodology
- Results
- Next Steps

Background

- **During the 2024-2025 installed reserve margin (IRM) study, ICS approved an update to the assumption of 10-minute Operating Reserves withheld during load shedding events**
 - The approved value of 400 MW was based on the 10-minute net load variability during the summer peak load window (PLW) using NYISO's regulation requirements dataset
 - ICS Meeting #276 May 3, 2023 (revised: May 5, 2023)*
- **NYISO's regulation requirement is not expected to be changed for 2026 or 2027 and hence the underlying dataset is not expected to be updated**
- **For the 2027-2028 IRM study, NYISO has evaluated whether an update to the 10-minute and 30-minute Operating Reserve withholding assumptions is warranted**

* https://www.nysrc.org/wp-content/uploads/2024/10/6.1_WithholdingOperatingReserveAssumptionReview_2023.05.03_Revised-1.pdf

Methodology

- **Consistent with the methodology previously reviewed and approved by ICS, the 10-minute net load variability was calculated to 3σ (99.7% confidence level).**
 - $\text{Net Load} = (\text{Total Load}) - (\text{Solar Production}) - (\text{Wind Production})$
- **Two summer time durations (or “windows”) were analyzed for the calculation to review the withholding assumption**
 - 10 Hour Summer PLW
 - Hour Beginning (HB) 12 – HB 21 from June – August
 - This is consistent with the PLW that was used to calculate the current withholding assumption during load shedding events
 - [2026-2027 Final Capacity Accreditation Factors and Peak Load Window](#)
 - LOLE Window
 - HB 09 – HB 22 from June – August
 - Informational 2025 Hourly LOLE distribution posted on NYISO’s Capacity Accreditation page
 - [Peak Load Window for the 2026-2027 Capability Year](#)
- **The underlying dataset remains unchanged from the 2024-2025 analysis.**

Results: 10-Minute Net Load Variability

- The analysis indicates higher 10-minute net load variability for the 2027-2028 study period relative to the values underlying the currently-approved withholding assumption.

- The 10 Minute Net Load Variabilities for July and August using the LOLE Window exceed 400 MW

- Based on these results, NYISO proposes an update to the Emergency Operating Procedures (EOPs) to increase the assumed 10-minute Operating Reserve withholding in EOP Step 8 to 450 MW (+50 MW)

10 Minute Net Load Variability - 10 Hour PLW			
Month	June	July	August
2027-2028 Analysis	325	391	380
2024-2025 Analysis	254	328	298
<i>Delta</i>	71	63	82

10 Minute Net Load Variability - LOLE Window			
Month	June	July	August
2027-2028 Analysis	371	461	442
2024-2025 Analysis	316	396	382
<i>Delta</i>	55	65	60

Next Steps

- **Subject to ICS approval, the NYISO proposes updating the assumed 10-minute Operating Reserve withholding during load shedding to 450 MW for the 2027-2028 IRM study.**
 - The NYISO recommends that the allocation of the 450 MW follow the TSL/LCR Working Group recommendation presented at today’s ICS meeting
 - The TSL/LCR Working Group recommendation is not reflective of what is currently in the IRM model
- **NYISO will continue to review the Operating Reserve withholding assumption as part of future IRM study cycles**

Zone		Total 10-Minute Operating Reserves Distribution			Withholding			10-min Operating Reserves minus Withholding		
		Current Model (2026-2027 IRM FBC)	Recommended 2027-2028 IRM Model Update (working group recommendation)	Delta	Current Model (2026-2027 IRM FBC)	Recommended 2027-2028 IRM Model Update	Delta	Current Model (2026-2027 IRM FBC)	Recommended 2027-2028 IRM Model Update	Delta
Upstate	F	190	156	-34	58	53	-5	132	102	-30
	G	500	409	-91	153	141	-12	347	269	-78
Downstate	J	500	625	125	153	215	62	347	410	63
	K	120	120	0	37	41	4	83	79	-4
Total		1310	1310	0	400	450	50	910	860	-50

Next Steps

- **Subject to ICS approval, the NYISO proposes updating the assumed 10-minute Operating Reserve withholding during load shedding to 450 MW for the 2027-2028 IRM study.**
 - The allocation of the 450 MW of Withholding Operating Reserve will follow the TSL/IRM Working Group recommendation presented at the 4/28 ICS meeting
 - The TSL/IRM Working Group recommendation is not reflective of what is currently in the IRM model
- **NYISO will continue to review the Operating Reserve withholding assumption as part of future IRM study cycles**

Questions?

Our Mission and Vision



Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

