Attachment #4.1.2
Return to Agenda

New York ISO
Independent System Operator

Impact Analysis on Updated Emergency Assistance Limit and Operating Reserve Allocation

- Recommendations from TSL/LCR Working Group

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EC Meeting #325

May 8, 2026

Background

- **The TSL/LCR Working Group has identified two recommended modeling changes for the 2027-2028 installed reserve margin (IRM) study.**
  - Reduction in modeled Emergency Assistance (EA) from PJM across downstate interfaces, reflecting updated assumptions regarding the anticipated availability of emergency energy transfers into the New York Control Area.
  - Adjustment to the operating reserve requirement to reflect a higher reserve requirement in Load Zone J, in consideration of operating requirements with the addition of the Champlain Hudson Power Express (CHPE) transmission project.
- **The NYISO performed an impact assessment of these recommendations using Tan45 cases, including individual cases for each recommendation and a combined case reflecting both recommended changes. The results of this assessment are presented in this material for ICS review and discussion.**

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Recommended PJM EA Limits

- **Modeled EA limits on downstate PJM interfaces were reduced by 40 percent in load forecast uncertainty (LFU) Bins 1 and 2.**
  - EA limits in lower load bins remained unchanged.
  - The reduction applies to the Neptune, HTP, VFT, and A Line interfaces.
- **Modeled EA limits on upstate PJM interfaces (A, C, and G ties) remained unchanged.**

		Base Case*	Reduced PJM EA Limit
PJM Western Ties	Bin 1	580	580
	Bin 2	1110	1110
	Bin3+	1415	1415
PJM Neptune	Bin 1	90	54
	Bin 2	173	104
	Bin3+	660	660
PJM HTP	Bin 1	90	54
	Bin 2	173	104
	Bin3+	660	660
PJM VFT	Bin 1	43	26
	Bin 2	83	50
	Bin3+	315	315
PJM A Line	Bin 1	14	8
	Bin 2	28	17
	Bin3+	105	105

*Base Case represents the assumptions from the 2026-2027 IRM study.

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Recommended Operating Reserve Allocation

- **The 10-min operating reserves in Load Zone J was increased to 625 MW in line with the NYISO's revised operating reserve requirements post operation of CHPE. Total operating reserve requirements for the NYCA system remains unchanged.**
  - With the recommendation, the 10-min operating reserves would be increased to 625 MW in Load Zone J and unchanged in Load Zone K. The allocation in Load Zones F and G would be proportionally decreased.
  - The 400 MW withholding (i.e., retention during load shedding) would then be modeled proportional to the updated allocation of 10-min operating reserves in each location. As a result, Load Zone J has the highest withholding value after the proposed increase to its modeled 10-min operating reserves .

	Zone	Base Case*	Updated OR Assumptions	*Delta*
10-min OR	F	190	156	*-34*
	G	500	409	*-91*
	J	500	625	*125*
	K	120	120	-
	Total	1310	1310	-
400 MW Withholding	F	58	48	*-10*
	G	153	125	*-28*
	J	153	191	*38*
	K	37	37	-
	Total	400	400	-
10-min OR minus 400 MW	F	132	108	*-24*
	G	347	284	*-63*
	J	347	434	*87*
	K	83	83	-
	Total	910	910	-

*Base Case represents the assumptions from the 2026-2027 IRM study.

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Impact Assessment Results

- The recommended assumptions were evaluated using the 2026–2027 IRM Final Base Case (FBC) Special Sensitivity Case for comparison. Each assumption is assessed through a corresponding Tan45 simulation.
- The proposed update to the modeled EA limits of downstate PJM lines reduces the ability to rely on external assistance and increases system risk. This leads to a 0.59% increase in the Load Zone J Tan45-determined location requirement (LCR).
  - No impact to the IRM was observed, but a 0.15% increase in the Load Zone K LCR was identified.
- Updating the 10-min operating reserve allocation reduces the amount of this Emergency Operating Procedure (EOP) step available in Load Zone J and leads to a 0.3% increase in the Load Zone J LCR.
  - There is no impact on IRM as total 10-min operating reserve amount remains unchanged. A 0.15% increase in the Load Zone K LCR also occurred.
- Assessing the combined impact of updating the modeling assumptions for EA limits of downstate PJM lines and 10-minute operating reserves produced a 0.9% increase in the Load Zone J LCR.
  - There is also a 0.17% increase in the Load Zone K LCR. No material impact on the IRM was observed.

Case	IRM	IRM Delta	J LCR	J Delta	K LCR	K Delta	G-J LCR	G-J Delta
Base Case	25.6	-	79.85	-	107.50	-	89.22	-
Reduced PJM EA Limit	25.6	0.0	80.44	+0.59	107.65	+0.15	89.66	+0.44
Updated OR Assumptions	25.6	0.0	80.15	+0.30	107.57	+0.07	89.44	+0.22
Reduced EA & Updated OR	25.6	0.0	80.75	+0.90	107.67	+0.17	89.87	+0.65

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Questions?

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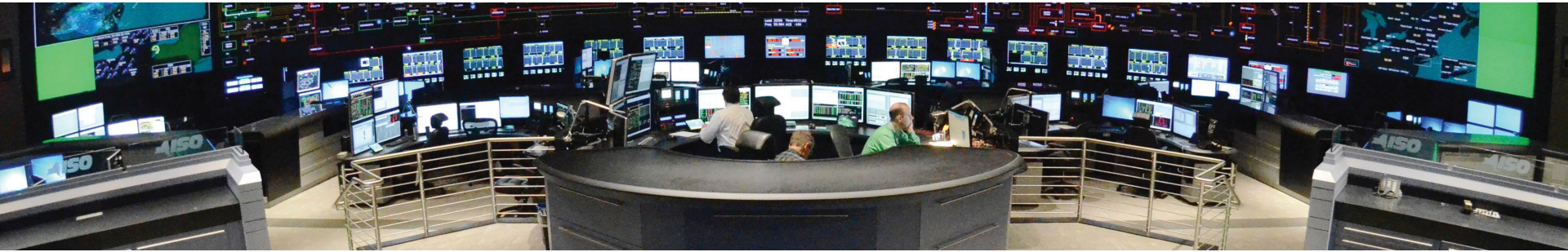
Our Mission and Vision

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



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