

# Impact Assessment of TSL Floor Implementation

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# Background

- The IRM study is conducted using the Tan45 process, as outlined in the Policy 5 Appendix B. During the Tan45 process, Transmission Security Limits (“TSLs”) are not considered
- After the IRM is finalized using the Tan45 process, the NYISO conducts the LCR Study for Zone J, K and G-J Locality, using the finalized IRM and the Final Base Case (FBC), according to the NYISO Tariff, NYISO LCR Study Procedure and Policy 5 Appendix C
- During the LCR study, TSLs are respected and the finalized IRM is maintained
  - TSLs establish floor values for LCRs

# 2024-2025 IRM Tan45 Results

- The Tan45 results for the 2024-2025 IRM study FBC are as follows:

Case	IRM	Preliminary LCRs		
		Zone J	Zone K	G-J Locality
2024-2025 IRM FBC Tan45	23.100%	73.730%	103.207%	84.577%

- As noted during the preliminary base case (PBC) analysis, the 2024-2025 IRM study captured significant improvements in the topology model that facilitate increased transfers from upstate to Zone J, which lowers the Zone J Preliminary LCR and increases the IRM
- During the 10/4/2023 meeting, the ICS discussed the observation of the Preliminary LCR and IRM, as well as its potential impact on the NYISO's LCR study where TSLs would be respected
- As requested in response to this discussion, the NYISO conducted additional analysis of the 2024-2025 IRM FBC

# Final TSL Floor for 2024-2025 LCR

- The NYISO presented the following finalized TSL floor values (TSL Floors) for the 2024-2025 LCR study at the 10/26/2023 ICAP Working Group meeting\*

Transmission Security Limit Floor Calculation	Formula	G-J	NYC	LI	Notes
Load Forecast (MW)	[A] = Given	15,274	11,171	5,080	[1]
Bulk Power Transmission Limit (MW)	[B] = Studied	4,350	2,875	275	[2]
Net Flow Adjustment to Transmission Limit (MW)*	[N] = Study Assumption	275			[3]
Offshore Wind (MW)	[O] = Given			37.5	[4]
UCAP Requirement (MW)	[C] = [A]-[B]+[N]+[O]	11,199	8,296	4,843	
UCAP Requirement Floor	[D] = [C]/[A]	73.3%	74.3%	95.3%	
5-Year Derating Factor	[E] = Given	5.4%	4.5%	8.9%	[5]
Special Case Resources (MW)	[F] = Given	526.7	442.4	35.3	[6]
ICAP Requirement (MW)	[G] = ([C]/(1-[E]))+[F]	12,364	9,129	5,348	
ICAP Requirement Floor (%)	[H] = [G]/[A]	81.0%	81.7%	105.3%	

\*See Bulk Power Transmission Capability Report for study assumptions and adjustment details

- The NYISO used these TSL Floors in conducting the analysis described on the following slides

\*: <https://www.nyiso.com/documents/20142/40834869/Final%20TSL%20Floors%20-%20Capability%20Year%202024-2025.pdf>

# Respecting TSL Floors and Tan45 IRM

- Based on the ICS’s direction, the NYISO first manually adjusted the 2024-2025 IRM FBC to respect both TSL Floors and the IRM from the Tan45 results
  - The adjustments of capacity in each zone are based on the zonal ratio of available surplus UCAP, according to the Unified Methodology outlined in Policy 5 Appendix A
    - Capacity in Zones J and K is increased to satisfy the corresponding TSL Floors
    - Capacity in Zone G through Zone I is removed to satisfy the TSL Floor for the G-J locality
    - Capacity is removed from Zone A, C and D to satisfy the IRM of 23.1%

2024-2025 FBC	IRM	J LCR	K LCR	G-J
Tan45 IRM + TSL Floor (Manual)	23.10%	81.70%	105.30%	81.00%

- By adjusting the LCRs to respect the TSL Floors while maintaining the IRM from Tan45 results, the LOLE of this adjusted FBC decreases from 0.100 to 0.069

# Respecting TSL Floors and LOLE Criterion

- Based on the ICS's direction, the NYISO then made further adjustments on the IRM to satisfy the LOLE criterion, while maintaining the LCRs that respect the TSL floors (see prior slide for LCR results)
  - The adjustments of capacity in each zones are also based on the zonal ratio of available surplus UCAP, according to the Unified Methodology outlined in Policy 5 Appendix A
  - Capacity is removed from Zone A, C, and D to satisfy the LOLE criterion

2024-2025 FBC	IRM	J LCR	K LCR	G-J
IRM + TSL Floor (At-Criteria)	21.50%	81.70%	105.30%	81.00%

- With this adjustment, the LOLE of this adjusted FBC is at criteria, with the IRM of 21.5%

# Next Steps

- **Preliminary LCR results based on the 2024-2025 IRM FBC and the Tan45 results will be presented to the 11/17/2023 ICAP Working Group**
  - The finalized TSL Floors, the Tan45 IRM results, and updated net cost of new entry (Net CONE) curves will be used to produce the preliminary results using the NYISO's LCR methodology
- **The 2024-2025 IRM will be finalized by the NYSRC at the 12/8/2023 EC Meeting**
- **Final LCR study will be conducted subsequently, using the finalized IRM established by NYSRC**

# Questions?



# Our Mission & 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