

# Final LCR Results: Capability Year 2024-2025

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**Operating Committee**

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# Agenda

- Background
- LCR Study Inputs
- Final LCR Results
- Next Steps

# Background

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- As part of the normal process, the NYISO performed a study to determine the final Locational Minimum Installed Capacity Requirements (LCRs) for the Localities of New York City (Load Zone J), Long Island (Load Zone K) and the G-J Locality (Load Zones G, H, I, and J) for the 2024-2025 Capability Year
- The study utilized the final NYCA Installed Reserve Margin (IRM) study database, New York State Reliability Council (NYSRC) approved IRM, final transmission security limit (TSL) floor values, and final net cost of new entry (CONE) curves
- The final LCRs are presented to the NYISO Operating Committee (OC) for review and approval and subsequently posted to the NYISO website

# LCR Study Inputs

# Final IRM Database

- The NYISO utilized the final IRM database for the LCR study
- There were several modeling and assumption changes adopted in this year's IRM study:
  - Reduced emergency assistance (EA) from neighboring areas
    - EOP Review Whitepaper Report:  
[https://www.nysrc.org/wp-content/uploads/2023/10/EOP-Review-Whitepaper-Report\\_FINAL\\_For\\_Posting.pdf](https://www.nysrc.org/wp-content/uploads/2023/10/EOP-Review-Whitepaper-Report_FINAL_For_Posting.pdf)
  - Topology updates due to the “AC Transmission” project
    - 2024 – 2025 IRM Proposed MARS Topology Update:  
[https://www.nysrc.org/wp-content/uploads/2023/07/6.2\\_Topology-Update-ICS-0530202315816.pdf](https://www.nysrc.org/wp-content/uploads/2023/07/6.2_Topology-Update-ICS-0530202315816.pdf)
  - 226 MW of new renewable resources (136 MW offshore wind, 90 MW utility-scale solar)
    - NYCA IRM Requirement Study 2024-2025 Final Base Case (FBC) Model Assumptions Matrix:  
[https://www.nysrc.org/wp-content/uploads/2023/10/IRM\\_FBCAssumptionsMatrix\\_V1.222498.pdf](https://www.nysrc.org/wp-content/uploads/2023/10/IRM_FBCAssumptionsMatrix_V1.222498.pdf)

# Approved IRM

- **On December 8, 2023, the NYSRC Executive Committee (EC) approved a final IRM of 22.0% for the 2024-2025 Capability Year**
  - The EC approved IRM reflected consideration of various factors, including the impact of the TSL floors in the LCR study
  - 2024-25 IRM Resolution:  
<https://www.nysrc.org/wp-content/uploads/2023/12/2024-25-IRM-Resolution-12-8-2023-final.pdf>
- **The LCR study was subsequently performed respecting the EC approved IRM of 22.0%**
  - The IRM database was adjusted to the EC approved IRM and the TSL floors to produce the target LOLE for this LCR study of 0.089 event-days/year

# Final TSL Floors

- The final TSL floors were presented at the October 26, 2023 ICAPWG meeting
  - Transmission Security Limit Floor: Capability Year 2024-2025:  
<https://www.nyiso.com/documents/20142/40834869/Final%20TSL%20Floors%20-%20Capability%20Year%202024-2025.pdf>
- There were two changes implemented into this year’s methodology for calculating the TSL floors
  - Adjustment to account for the difference in forced outage rate utilized in the IRM study and reliability planning procedures for the new offshore wind resources modeled in this year’s IRM study
  - Adjustment to account for net flow from Load Zone K to Load Zone J assumed in the 2024-25 Locality Bulk Power Transmission Capability Report (Available at: <https://www.nyiso.com/documents/20142/40834869/2024-25%20Locality%20Bulk%20Power%20Transmission%20Capability%20Report.pdf>)

Transmission Security Limit Floor Calculation	Formula	G-J	NYC	LI
Load Forecast (MW)	[A] = Given	15,274	11,171	5,080
Bulk Power Transmission Limit (MW)	[B] = Studied	4,350	2,875	275
Net Flow Adjustment to Transmission Limit (MW)*	[N] = Study Assumption	275		
Offshore Wind (MW)	[O] = Given			37.5
UCAP Requirement (MW)	$[C] = [A] - [B] + [N] + [O]$	11,199	8,296	4,843
UCAP Requirement Floor	$[D] = [C] / [A]$	73.32%	74.26%	95.33%
5-Year Derating Factor	[E] = Given	5.40%	4.50%	8.85%
Special Case Resources (MW)	[F] = Given	526.7	442.4	35.3
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%



# Final Net CONE Curves

- The net CONE curves were updated based on the 2024-2025 ICAP Demand Curves
  - Annual Update for 2024-2025 ICAP Demand Curves:  
<https://www.nyiso.com/documents/20142/41273741/Annual%20Update%20for%202024-2025%20ICAP%20Demand%20Curves.pdf>
- The Net CONE (\$/kW-yr) value is updated based on the 2024-2025 Annual ICAP Reference Values
- The hypothetical peaking plant sizes and net CONE curve slopes (LCR (%)) remain unchanged from the 2023-2024 study

Location (Peaking Plant Size)	LCR (%)	2024 - 2025 Net CONE Curves (\$/kw-yr)
NYCA (326.7 MW)	112.9	69.34
	115.9	70.97
	118.9	72.35
	121.9	73.66
	124.9	74.21
G - J (347.0 MW)	84.0	75.09
	87.0	77.25
	90.0	78.82
	93.0	80.26
	96.0	80.95
Zone J (348.8 MW)	80.6	144.12
	83.6	149.00
	86.6	150.98
	89.6	152.54
	92.6	153.65
Zone K (348.8 MW)	97.4	45.93
	100.4	55.40
	103.4	61.24
	106.4	64.19
	109.4	66.74

# Final LCR Results

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Results Comparison	IRM	J LCR	K LCR	G - J	LOLE (Event-days/yr)
2024 - 2025 Final LCRs	22.0%	81.7%*	105.3%*	81.0%*	0.089
2024 - 2025 FBC (Tan45)	23.1%	72.7%	103.2%	84.6%	0.100
2023 - 2024 Final LCRs	20.0%	81.7%*	105.2%	85.4%*	0.098

\* TSL floor is binding

# Next Steps

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- **Seek OC approval of the 2024-2025 Capability Year LCRs**
- **Post the 2024-2025 LCR Report and 2024-2025 Locality Bulk Power Transmission Capability Report to the NYISO website following OC approval**

# 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

# Questions?