

2027-2028 IRM Final Base Case Proposed Topology Updates

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Resource Adequacy

ICS Meeting #322

September 29, 2026

Agenda

- **Proposed internal New York Control Area (NYCA) topology updates for the 2027-2028 Installed Reserve Margin (IRM) study Final Base Case (FBC)**
 - UPNY-ConEd forward limit
 - UPNY-SENY forward interface group limit
 - Load Zone K seasonal interface limits
- **Preliminary Impact Analysis**
 - Impact of proposed topology updates on various Tan45 points
- **Next steps**

Background

- **During the development of the 2027-2028 IRM Preliminary Base Case (PBC), topology updates were incorporated in the IRM study model.**
 - New interface transfer limits were applied to Dysinger-East, West-Central Reverse (summer and winter), and Moses-South ^[1]
 - These recommendations were based on the most up-to-date NYISO seasonal operating and reliability studies at that time
- **The NYISO has identified additional recommended transfer limit updates for the FBC**
 - The NYISO has also received updated transfer limits from transmission owners for the Y49/Y50 (I-K), Jamaica Ties (J-K), ConEd-LIPA group, and Long Island (LI) West group interfaces

[1] [2027-2028 IRM PBC Proposed Topology Updates](#) presented at the 06/03/2026 ICS meeting

UPNY-SENY Interface Group

- The 2026 Reliability Needs Assessment (RNA) [2] study assumptions show a decrease to the UPNY-SENY interface limit applicable to the 2027-2028 Capability Year compared to the historical limit modeled in the IRM study.
 - In the MARS model, the UPNY-SENY Group includes the Marcy-South (E-G), Capital-Hudson Valley (F-G), and the ISO-NE to Load Zone G interface limit
- The NYISO recommends decreasing the annual interface transfer limit for the UPNY-SENY Interface Group to 6,400 MW to align with the summer transfer limit reported in the 2026 RNA
 - The NYISO recommends maintaining the annual limit for UPNY-SENY at the summer limit for the 2027-2028 IRM study
 - Maximum MW flow on the interface group was not observed beyond the original annual limit during winter months, nor the proposed updated forward limit. As a result, the UPNY-SENY group would not be considered for a seasonal topology update in the 2027-2028 IRM study.

UPNY-SENY Interface Group	Forward Limit (MW)
2027-2028 IRM PBC	7,150
Proposed Update for 2027-2028 IRM FBC	6,400
Delta	-750

Case	IRM	J LCR	K LCR
27-28 IRM PBC	30.80%	85.87%	109.87%
UPNY-SENY Limit Update	30.85%	85.90%	109.91%
Delta	0.05%	0.04%	0.04%

[2] 2026 RNA: Preliminary Base Case Draft Results

UPNY-ConEd Limit Methodology

- **The transfer limit for the UPNY-ConEd interface is based on voltage collapse limits. These limits are dynamic and contingent on operating assumptions and equipment availability.**
 - While GE MARS allows dynamic transfer limit modeling, the condition sets established for the UPNY-ConEd transfer limit require additional equipment considerations that would significantly complicate modeling for the IRM study.
 - The existing annual transfer limit in the IRM study model of 7,050 MW considers NYISO operating studies and operational experience to approximate the dynamic interface limit as a static value
 - The interface limit in the IRM study model aligns with operational expectations including a single generator outage scenario.
- **To improve transparency on the methodology for establishing the UPNY-ConEd interface MARS topology limit, the NYISO proposes the following procedure using the most recent UPNY-ConEd Voltage Collapse Transfer Limit study ^[3] starting with the 2027-2028 IRM study.**
 1. The modeled limit considers the most conservative of the single generator outage scenario limits including all series reactor configurations found in the UPNY-ConEd voltage collapse study.
 2. For scenarios provided in the UPNY-ConEd voltage collapse study, additional derates from assuming units out of service can be applied to the modeled limit to account for relevant, upcoming generation deactivations modeled in the IRM study
 3. The NYISO recommends maintaining an annual interface transfer limit in the 2027-2028 IRM study.

[3] [UPNY-ConEd Voltage Collapse Transfer Limits \(August 2025\)](#)

UPNY-ConEd Forward Limit

- **Following the proposed procedure, the NYISO recommends revising the UPNY-ConEd Interface transfer limit from 7,050 MW to 7,100 MW.**
 - The recommended transfer limit is based on the 2025 UPNY-ConEd Voltage Collapse Transfer Limit Study,^[3] in which the most limiting single generator contingency transfer limit was identified as 7,285 MW.*
 - A derate of 185 MW was applied to account for the removal of Danskammer in the 2027-2028 IRM study.
 - Application of the 185 MW derate results in a recommended annual UPNY-ConEd Interface transfer limit of 7,100 MW.
- **An impact analysis was performed to evaluate the proposed transfer limit update.**
 - No material impact on the IRM was observed relative to the PBC.

[3] UPNY-ConEd Voltage Collapse Transfer Limits (August 2025)

*This configuration assumes: One Bowline unit out of service, Sprain Brook/Dunwoodie series reactors in service, and Sprain Brook-Uniondale Hub and Gowanus series reactors bypassed.

UPNY-ConEd Voltage Collapse Limits	Equipment Status* (MW)
All Equipment I/S	7,630
1 Bowline I/S	-345
0 Danskammer I/S	-185

UPNY-ConEd Interface Group	Forward Limit (MW)
2027-2028 IRM PBC	7,050
Proposed Update for 2027-2028 IRM FBC	7,100
Delta	+50

Case	IRM	J LCR	K LCR
27-28 IRM PBC	30.80%	85.87%	109.87%
UPNY-ConEd Limit Update	30.80%	85.87%	109.87%
Delta	0.00%	0.00%	0.00%

Load Zone K Seasonal Limits

- The NYISO received winter transfer limits from the applicable transmission owners for certain downstate internal NYCA interfaces as part of the seasonal topology update process for the FBC. The NYISO proposes to include seasonal limit updates (identified below) based on the information provided
- An impact analysis indicates that incorporating the seasonal limits results in a 0.1% reduction in IRM compared to the PBC.

Interface	27-28 IRM PBC Annual Limit (MW)	Winter Limit Update (MW)	Delta (MW)
Y49/Y50 Forward	1,293	1,434	+141
Y49/Y50 Reverse	385	1,060	+675
Jamaica Ties Reverse	485	584	+99
I+J to K Forward	1,598	1,736	+138
I+J to K Reverse	120	790	+670
LI West Reverse	34	704	+670

Case	IRM	J LCR	K LCR
27-28 IRM PBC	30.80%	85.87%	109.87%
Load Zone K Limit Updates	30.70%	85.79%	109.78%
Delta	-0.10%	-0.08%	-0.09%

Impact Assessment of Proposed Interface Limit Updates

- The NYISO performed additional assessments to estimate the impact of all the proposed transfer limit updates for the FBC on points on the PBC Tan45 curve
 - While transfer limit updates may have a limited impact on the parametric results, evaluation of additional Tan45 curve points can provide insight into impacts under varying upstate and downstate capacity distributions.
- The results indicate that the proposed transfer limit updates for the FBC have a limited impact on all the evaluated PBC Tan45 curve points.

IRM Impact of FBC Interface Limit Changes on Tan45 Points				
Case	Low Point	PBC Tan45 Point	Intermediate Point	High Point
27-28 IRM PBC	29.00%	30.80%	32.50%	34.50%
Proposed FBC Topology Updates	28.81%	30.70%	32.47%	34.53%
<i>Delta</i>	-0.19%	-0.10%	-0.03%	+0.03%

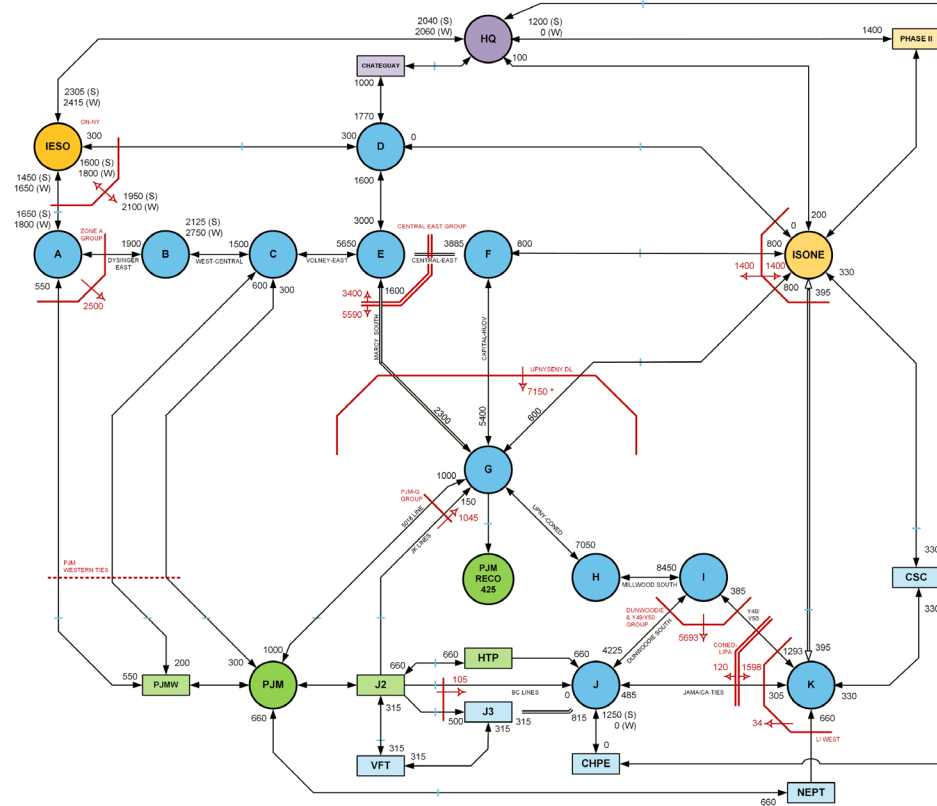
Next Steps

- **The NYISO will implement the recommendations approved by the ICS for the 2027-2028 IRM FBC.**

Questions?

Appendix

2027-2028 IRM PBC Topology for NYCA



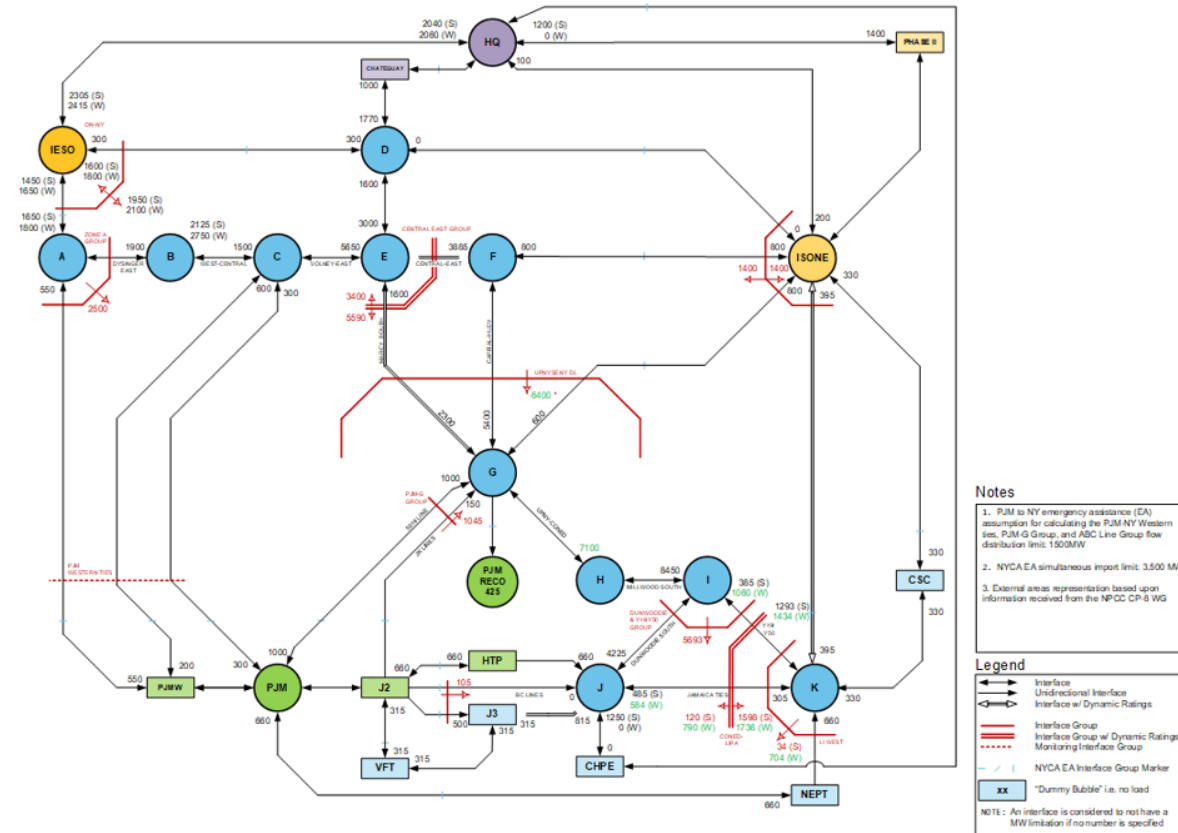
Notes

1. PJM to NY emergency assistance (EA) assumption for calculating the PJM-NY Western ties, PJM-G Group, and ABC Line Group flow distribution limit: 1500MW
2. NYCA EA simultaneous import limit: 3,500 MW
3. External areas representation based upon information received from the NPCC CP-8 WG

Legend

- Interface
 - Unidirectional Interface
 - Interface w/ Dynamic Ratings
 - Interface Group
 - Interface Group w/ Dynamic Ratings
 - Monitoring Interface Group
 - NYCA EA Interface Group Marker
 - xx "Dummy Bubble" i.e. no load
- NOTE: An interface is considered to not have a MW limitation if no number is specified

Proposed 2027-2028 IRM FBC Topology for NYCA



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

