

AC Transmission and Peaker Retirements in IRM Study

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Overview

- Review assumptions and cases
- Results
- Next Steps

Background

- **ICS request to run Tan 45 cases with AC Transmission in service and DEC NOx Rule Peakers retired**
- **To be completed prior to the Preliminary Base Case**
- **High level summary of changes**
 - 2023 – Topology changes for ConEd series reactors, Generator (Peaker) retirements based on DEC compliance plans
 - 2024 – AC Transmission topology updates
 - 2025 – Generator (Peaker) retirements
- **These assumptions are a projection of future conditions which may and likely will change between now and the time when actual IRM and LCR values are calculated for future market years.**

Assumptions

- **Start with 2022 IRM Study Final Base Case**
- **Return Neptune line rating to fully available for LCR runs**
 - Tan 45 cases were not run with this assumption
- **Transmission Security Limits (TSL) are the same as 2022 LCR Report**
 - Zones G-J: 80.7%
 - Zone J: 77.2%
 - Zone K: 94.4%
 - TSLs are likely to change in the years studied
- **Final IRM and LCRs from 2022**
 - IRM: 19.6%
 - J LCR: 81.2%
 - K LCR: 99.5%
 - G-J LCR: 89.2%

Disclaimer

- **The IRM and LCR values that result from this analysis are based on a set of assumptions that may and likely will not represent future conditions when actual IRM and LCRs are calculated for future market years.**
- **These results are provided for study purposes only, and the NYISO disclaims their use for purposes of making any financial or procurement decisions associated with the NYISO's installed capacity markets.**

Case 1 – Y2023

- **Start with 2022 FBC**
 - Neptune remained derated for Tan 45 values
 - Neptune reinstated to full value for LCR results
 - EFORd
 - NYCA: 12.1%
 - Zones G-J: 9.6%
- **Retire 2023 Peakers**
 - 37.7 MW in G
 - 745.9 MW in J
 - 24.6 MW in K
- **Updated Topology due to change in series reactors**
 - G to H 325 MW decrease (6,675 MW)
 - I to J 50 MW increase (4,400 MW)
 - I to J and K grouping 50 MW increase (5,693 MW)
- **Tan 45 Results**
 - IRM: 19.0%
 - Zone J: 79.7%
 - Zone K: 102.2%
 - Zones G-J: 89.8%
- **EFORd Values**
 - NYCA: 11.8%
 - Zones G-J: 8.6%
- **Optimized LCRs**
 - Zone J: 80.2% (-1.0% from 2022 LCRs)
 - Zone K: 96.2% (-3.3% from 2022 LCRs)
 - Zones G-J: 87.4% (-2.2% from 2022 LCRs)

Case 2 – Y2024

- **Start with Case 1**
 - Neptune remained derated for Tan 45 values
 - Neptune reinstated to full value for LCR results
- **Updated Topology due to AC Upgrade**
 - E to F increase of 1,125 MW (3,925 MW)
 - E to F and G (grouping) increase of 1,134 MW (5,650 MW)
 - E to G increase of 550 MW (2,300 MW)
 - F to G increase of 1,925 MW (5,400 MW)
 - G to H increase of 375 MW from previous case (7,050 MW)
 - UPNYSNY increase of 1,900 MW (7,150 MW)
- **EFORd values remained the same**
- **Tan 45 Results**
 - IRM: 19.3%
 - Zone J: 78.6%
 - Zone K: 100.3%
 - Zones G-J: 89.0%
- **Optimized LCRs**
 - Zone J: 78.9% (-1.3% from Y2023)
 - Zone K: 94.8% (-1.4% from Y2023)
 - Zones G-J: 80.7%* (-6.7% from Y2023)
 - G-J Optimized LCR is at its TSL

Case 3 – Y2025

- **Start with Case 2**
 - Neptune remained derated for Tan 45 values
 - Neptune reinstated to full value for LCR results
- **Retire 2025 Peakers**
 - 626 MWs in Zone J
 - 111.5 MWs in Zone K
- **EFORd Values**
 - NYCA: 11.7%
 - Zones G-J: 8.4%
- **Tan 45 Results**
 - IRM: 19.3%
 - Zone J: 76.7%
 - Zone K: 100.8%
 - Zones G-J: 87.6%
- **LCR Results**
 - Zone J: 77.6% (-1.3% from Y2024)
 - Zone K: 94.4%* (-0.4% from Y2024)
 - Zones G-J: 80.7%* (No change from Y2024)
 - Zones G-J and Zone J Optimized LCRs are at TSL floor levels

Summary of Results

		Final LCR Case	Y2023	Y2024	Y2025		2022 Final TSL
Tan 45 Analysis	IRM	19.6%	19.0%	19.3%	19.3%		-
	Zone J	80.7%	79.7%	78.6%	76.7%		-
	Zone K	99.8%	102.2%	100.3%	100.8%		-
	Zones G-J	90.7%	89.8%	89.0%	87.6%		-
Optimized LCRs	Zone J	81.2%	80.2%	78.9%	77.6%		77.2%
	Zone K	99.5%	96.2%	94.8%	94.4%*		94.4%
	Zones G-J	89.2%	87.4%	80.7%*	80.7%*		80.7%
* Value at TSL Floor							

Next Steps

- **Begin the Parametric Study for 2023 IRM**
 - The 2023 case assumptions to be wrapped into this study
- **Run Tan 45 analysis and develop Preliminary Base Case**

Questions?

Email IRM@nyiso.com with further questions