Attachment #4.1.4

New York ISO
Independent System Operator

2025-2026 Installed Reserve Margin (IRM) Preliminary Base Case (PBC)
- Tan45 Results

NYISO

Resource Adequacy

ICS Meeting #292

July 30, 2024

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2025-2026 IRM: PBC Tan45 Results

Results	2024-2025 IRM Final Base Case (FBC)	2025-2026 IRM PBC	Delta
IRM	23.1	23.6	0.5%
Load Zone J	72.7	76.0	3.3%
Load Zone K	103.2	102.5	-0.7%
G-J Locality	84.6	87.5	2.9%
NYCA EOP (Days/Yr.)	8.1	7.4	-0.7

Case	Loss of Load Expectation (LOLE)	Hourly Loss of Load Expectation (LOLH)	Normalized Loss of Energy Expectation or LOEE (Expected Unserved Energy or EUE) "Simple Method" ppm	Normalized LOEE (EUE) "Bin Method" ppm
2024-2025 IRM FBC	0.100	0.377	1.478	1.331
2025-2026 IRM PBC	0.100	0.386	1.554	1.386

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Observations

- **The NYISO identified two contributing factors to the increase in the IRM and Load Zone J locational capacity requirement (LCR).**
- **New solar generation added upstate[1]**
  - Additional 346.8 MW resulted in a 0.86% parametric increase to the IRM
- **Certain Assumption Updates[2]**
  - Additional limits on Emergency Assistance (EA) applied to PJM high voltage direct current (HVDC) lines
  - Updated downstate cable forced outage rate calculation (10-year vs. 5-year)
  - Changes to Emergency Operating Procedures (EOP)
    - Limiting Voluntary Load Curtailment and Public Appeals to three calls per year.
      - MW are significantly concentrated downstate for these two steps.
      - Limiting the three-calls per year with no load relief after the third call.

1. https://www.nysrc.org/wp-content/uploads/2024/06/New-Generator-Screening-06052024-ICS33408.pdf
2. https://www.nysrc.org/wp-content/uploads/2024/06/NYSRC-Recommendations-for-Adoption_v233558.pdf

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Impact of EOP Changes

- **Public Appeals and Voluntary Load Curtailments are sourced primarily downstate.**
  - Voluntary Curtailments: 267.17 MW
  - Public Appeals: 74 MW
- **The limitation of Voluntary Curtailment and Public Appeals relief causes the GE Multi-Area Reliability Simulation (MARS) program to rely further on subsequent EOP steps which do not provide as much relief to the system.**
- **A Tan45 test case was conducted to reverse the three-calls per year limitation for these steps, the following MW impact is based on peak zonal demand:**
  - IRM: +322 MW
  - Load Zone J LCR: +95 MW
  - Load Zone K LCR: +93 MW
  - G-J Locality: +95 MW
- **Overall, the observed increase in MW requirements across locations are consistent with the reduction in load relief.**

Margin	2025-2026 IRM PBC *(Tan45)* *Voluntary Curtailment and Public Appeals Limited to 3 calls per year*	2025-2026 IRM PBC *(Tan45)* *Voluntary Curtailment and Public Appeals Unlimited*	Delta
IRM	23.6	22.6	1.0%
J LCR	76.0	75.1	0.9%
K LCR	102.5	100.7	1.8%
G-J	87.5	86.9	0.6%

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