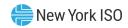# NYISO's Compliance Submittal for NYSRC Rule A.3 (R1)

Next Capability Year Resource Adequacy Assessment

A Report by the
New York Independent System Operator

Presented to the Reliability Compliance Monitoring Subcommittee
of the New York State Reliability Council

June 5, 2025

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Statement of NYSRC Rule A.3 R1

The NYSRC Reliability Rule A.3 R1 has the following requirements:

"**R1.** The NYISO shall conduct a NYCA resource adequacy assessment for the next Capability Period for demonstrating that proposed NYCA resources meet statewide IRM and locational capacity requirements in accordance with Reliability Rules A.1: R1.1 and A.2: R1. The assessment shall be documented in a report, covering at a minimum, the evaluations and information below:

R1.1 The Resource Adequacy assessment shall evaluate a base case assuming proposed resources and the most likely load forecast, as well as alternate scenarios approved by RCMS.

R1.2 The Resource Adequacy assessment shall address any potential base case resource adequacy needs and possible corrective actions.

R1.3 The Resource Adequacy assessment report shall include key findings, assumptions, and other factors considered in the assessment."

The following compliance measure serves to fulfill the NYSRC Reliability Rule A.3 requirement R1. This measure states that:

"**M1.** The NYISO submitted a NYCA Next Capability Period Year Resource Adequacy Assessment Report covering the next Capability Period to the NYSRC in accordance with R1 requirements."

Establishment of the Installed Reserve Margin (IRM)

The Installed Capacity Subcommittee (ICS) of the New York State Reliability Council conducted a technical resource reliability study in 2024 to determine the IRM for the 2025-2026 Capability Year. The Executive Committee of the NYSRC approved the Capability Year 2025–2026 IRM at 24.4% on December 6, 2024[1] that met the required Loss of Load Expectation (LOLE) criteria of 0.1 days per year as specified in NYSRC Rule A.1, Requirement R1.1.

Establishment of Locational Minimum Installed Capacity Requirements (LCRs)

Using the approved IRM, the NYISO then determined the LCRs for the 2025-2026 Capability Year.

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[1] 2025-26 IRM Resolution

The NYISO's Operating Committee approved the LCRs on January 16, 2025.[2] The LOLE resource adequacy criterion was maintained throughout the process. The NYISO's calculations resulted in a final value of New York City LCR of 78.5%, a Long Island LCR of 106.5%, and a G-J Locality LCR of 78.8% for the 2025-2026 Capability Year.

Capability Year 2025-2026 Assessment

This assessment builds upon the data models for the IRM and LCR studies associated with the 2025-2026 Capability Year with a deterministic approach to verify that resource adequacy is maintained for the 2025-2026 Capability Year.

Load Forecast Model

The NYISO employs a multi-stage process to develop load forecasts for each of the eleven Load Zones within the New York Control Area (NYCA). Baseline energy and peak models are developed based on projections of end-use intensities and economic variables. End-use intensities modeled include, for example, those for lighting, refrigeration, cooking, heating, cooling, and miscellaneous plug loads. Appliance end-use intensities are generally defined as the product of saturation levels (average number of units per household or commercial square foot) and efficiency levels (energy usage per unit or a similar measure). End-use intensities specific to New York are estimated from appliance saturation and efficiency levels in both the residential and commercial sectors. These intensities include the projected impacts of energy efficiency programs, as well as improved building codes and appliance standards. Economic variables considered include Gross Domestic Product (GDP), number of households, population, and commercial and industrial employment. Projected long-term weather trends from the NYISO *Climate Change Impact Study Phase I* [3] are included in the end-use models. After development of the baseline models, the incremental impacts of additional policy-driven energy efficiency, behind-the-meter (BTM) solar generation, and distributed generation are deducted from the forecast, and the incremental impacts of electric vehicle usage, building electrification, and discrete large loads are added to the forecast. The impacts of net electricity consumption from energy storage resources due to charging

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[2] [2025-2026 NYISO LCR Report](#)

[3] NYISO *Climate Change Impact Study Phase I:* *https://www.nyiso.com/documents/20142/10773574/NYISO-Climate-Impact-Study-Phase1-Report.pdf/01fc1353-38cb-b95d-60c2-af42a78bff50*

and discharging are also added to the energy forecasts, while the peak-reducing impacts of BTM energy storage resources are deducted from the peak forecasts. Following these updates, the NYISO aggregates load forecasts by zone.

The 2025-2026 Capability Year peak load baseline forecast and the 90th percentile forecast from the NYISO's 2024 Load & Capacity Data report (commonly referred to as the "Gold Book") are listed in the table below. In the IRM probabilistic study, a Load Forecast Uncertainty (LFU) model is applied to the baseline peak forecast. The 90th percentile forecast of peak load provided in the 2024 Gold Book is consistent with the load distribution defined by the LFU model.

Capability Year 2025-2026 baseline and 90th percentile peak load forecast

	Baseline Peak Load (MW)*	90th Percentile Peak Load (MW)**	Delta (MW)
NYCA	31,650	33,416	1,766
NYC	11,210	11,324	114
LI	5,036	5,351	315
G-J***	15,281	15,655	374

* With impacts for Energy Savings Programs and Behind-the-Meter Generation

** Only coincident peak data is available in the 2024 Gold Book

*** The G-J forecast is the summation of all the coincident peaks in Zone G through J

Capacity Projections and Margin Levels

The NYCA 2025-2026 Capability Year capacity projections are based upon the 2024 Gold Book and updated information from the 2025-2026 IRM study as shown below.[4] This projection incorporates capacity additions, re-ratings, and deactivations that are identified in the 2024 Gold Book, and uses the lesser of the summer Capacity Resource Interconnection Service (CRIS) or

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[4] The capability ratings in Gold Book Table III-2 are based upon the best information available at the time of publication. The Gold Book inclusion/exclusion rules for Table III-2 may result in a different resource mix than used in this assessment. The capability ratings for both wind and solar resources are shown at their full nameplate rating.

summer Dependable Maximum Net Capability (DMNC) values for each unit. The statewide net purchases[5] and Special Case Resources (SCRs) are also included based on the information in Tables V-1 and I-7 of the 2024 Gold Book and updated information from the 2025-2026 IRM study, respectively.

Capability Year 2025-2026 Capacity Model based on 2024 Gold Book

	NYCA (MW)	NYC (MW)	LI (MW)	G-J (MW)
2024 Gold Book Summer Capability Ratings	31,374.9	8,718.9	5,072.5	13,530.4
Lesser of Capability Rating or CRIS from Gold Book	37,195.3	8,703.0	5,045.9	13,495.0
Special Case Resources[6]	1,486.7	478.7	30.6	569.3
Re-Ratings and Additions[7]	314			
Deactivations and Removals[8]	(165.4)	(43.3)	(122.1)	(43.3)
Net Purchases[9]	2,225.0	315.0	948.6	315.0
Total Capability for Summer 2025	41,055.6	9,453.4	5,903.0	14,336.0

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[5] Net purchases are long-term firm purchases less long-term firm sales. Firm purchases include grandfathered imports, external CRIS Rights, and Unforced Capacity Deliverability Rights (UDRs) with firm contracts.

[6] SCRs are based on the July 2024 enrollment as presented to ICS (https://www.nysrc.org/wp-content/uploads/2024/10/IRM-2025-2026-FBC-Assumptions-Matrix-v1.0-10042024-ICS.pdf).

[7] New resources and unit re-ratings can be found in the Final Assumptions Matrix for the 2025-2026 IRM study (https://www.nysrc.org/wp-content/uploads/2024/10/IRM-2025-2026-FBC-Assumptions-Matrix-v1.0-10042024-ICS.pdf).

[8] Deactivations and removals that are modeled in the IRM study can be found in the Final Assumptions Matrix for the 2025-2026 IRM study (https://www.nysrc.org/wp-content/uploads/2024/10/IRM-2025-2026-FBC-Assumptions-Matrix-v1.0-10042024-ICS.pdf)

[9] The values listed here have been updated to reflect the UDR elections for the 2025-2026 Capability Year and net purchases as used in the 2025-2026 IRM study. Purchases listed in the 2024 Gold Book do not include updated UDR election values for the 2025-2026 Capability Year.

Capability Year 2025-2026 Capacity Margin Values

	Capacity (MW)	Baseline Peak Load (MW)	Margin (%)	90th Percentile Peak Load (MW)[10]	Margin (%)
NYCA	41,055.6	31,650.0	129.7%	33,416.0	122.9%
NYC	9,453.4	11,210.0	84.3%	11,324.0	83.5%
LI	5,903.0	5,036.0	117.2%	5,351.0	110.3%
G-J	14,336.0	15,281.0	93.8%	15,655.0	91.6%

The analysis shows that with the baseline forecast of peak load, sufficient capacity is available to meet the 24.4% statewide IRM established by the NYSRC in December 2024 for the 2025-2026 Capability Year. In addition, sufficient capacity is available to meet the New York City LCR of 78.5%, Long Island LCR of 106.5%, and G-J Locality LCR of 78.8% under the baseline forecast of peak load. Sufficient capacity is also available to meet the New York City LCR of 78.5% and the G-J locality LCR of 78.8% at the 90th percentile forecast, however there is insufficient capacity to meet the statewide IRM of 24.4% and the Long Island LCR of 106.5% at the 90th percentile load forecast. In this case, emergency operating procedures, such as calling for additional import from neighboring systems, as well as activating voltage reductions and public appeals, will be implemented to ensure the reliability of the NYCA system.

Conclusion

With the capacity and load projections (as updated by the 2024 Gold Book and, as applicable, 2025-2026 IRM study assumptions), a deterministic assessment demonstrates that the New York Control Area meets the resource adequacy requirements established by the NYSRC and the LCR requirements as set the by the NYISO for the 2025-2026 Capability Year. Sufficient capacity is available to meet the IRM established by the NYSRC in December 2024 and to meet the final LCRs established by the NYISO in April 2025, under the baseline forecast of peak load.[11]   At the 90th

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[10] The 90th percentile forecast is based on the coincident peak values due to a 90th percentile non-coincident peak not being calculated for NYC, LI, and the G-J Locality.

[11] It is important to note that deterministic assessments only provide "what if" information and do not test resource adequacy. Had there been significant changes to the capacity and/or load models where the required IRM or LCRs were not met under the baseline forecast of peak load, the NYISO would implement appropriate corrective actions.

percentile load forecast level, additional emergency operating procedures will be implemented to maintain the statewide IRM and Long Island LCR, as well as to ensure the reliability of the NYCA system.