New York ISO
Independent System Operator

NYISO's Compliance Submittal for NYSRC Rule A.2 (R1)

Establishing Load Serving Entity Installed Capacity Requirements

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

Table of Contents

TABLE OF CONTENTS 2
STATEMENT OF NYSRC RULE A.2 3
ESTABLISHMENT OF THE INSTALLED RESERVE MARGIN (IRM) 3
ESTABLISHMENT OF LOCATIONAL MINIMUM INSTALLED CAPACITY REQUIREMENTS (LCRS) 4
LOCATIONAL CAPACITY AND LSE REFERENCES AND PROCEDURES 4
REQUIREMENTS FOR LSES 5
Appendix A : 2025-2026 Capability Year LCR Report A-1
Appendix B : LCR Determination Process B-1

Statement of NYSRC Rule A.2

The NYSRC Reliability Rule A.2 has the following requirements:

"**R1.** The *NYISO* shall annually establish *Load Serving Entity* (LSE) *installed capacity* (ICAP) requirements, including *Locational Capacity Requirements* (LCRs), in accordance with *NYSRC* rules and *NYISO* tariffs. *NYISO* analyses for setting LCRs shall include the following requirements:

R1.1 The *NYISO* LCR analysis shall use the IRM established by the *NYSRC* as determined in accordance with Reliability Rule A.1.

R1.2 The *NYISO* LCR analysis shall maintain a LOLE of 0.1 days/year, as specified by the Requirement A.1: R1.1.

R1.3 The *NYISO* LCR analysis shall use the software, load and capacity data, and models consistent with that utilized by the NYSRC for its determination of the IRM, as described in Sections 3.2 and 3.5 of NYSRC Policy 5, 'Procedure for Establishing NYCA Installed Capacity Requirements.'

R1.4 The *NYISO* shall document the procedures used to calculate the LCRs.

R1.5 The *NYISO* shall prepare a report for the next *Capability Year* describing the analyses for establishing (1) *LSE ICAP* requirements, and (2) LCRs for applicable *NYCA zones*, prepared in accordance with R1.1 through R1.3. The report shall include the procedures, factors, and assumptions utilized by the *NYISO* to determine these *LSE ICAP* requirements and LCRs."

The following compliance measure serves to fulfill the NYSRC Reliability Rule A.2 requirement R1. This measure states that:

"**M1.** The *NYISO* conducted an annual analysis to establish *LSE* and Locational Capacity Requirements for the next *Capability Year* in accordance with R1.1, R1.2, and R1.3 requirements. The procedures used to calculate LCRs were documented in accordance with R1.4 and a report prepared in accordance with R1.5."

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], which met the required Loss of Load Expectation (LOLE) criterion of 0.1 days per year as specified in NYSRC Rule A.1, Requirement R1.1.

[1] 2025-26 IRM Resolution

Establishment of Locational Minimum Installed Capacity Requirements (LCRs)

Using the approved IRM, the NYISO then determined the LCRs for the 2025-2026 Capability Year. The NYISO's Operating Committee approved the LCRs on January 16, 2025[2]. The LOLE resource adequacy criterion was maintained throughout this process. The NYISO's calculations resulted in a 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.

Locational Capacity and Load Serving Entity Procedures

The NYISO Market Administration and Control Area Services Tariff (Services Tariff)[3] provides rules governing the NYISO-administered capacity market. Capacity obligations for Load Serving Entities (LSEs) are contained in Section 5.11 and procedures for establishing LCRs are set forth in Section 5.11.4. The LCR methodology utilizes an economic optimization algorithm to minimize the total cost of capacity for the New York Control Area (NYCA).

The NYISO Installed Capacity (ICAP) Manual[4] contains the procedures governing the Installed Capacity markets and auctions administered by the NYISO. Section 3 of the ICAP Manual addresses LSE requirements in procuring capacity to meet the IRM. Section 3.6.2, titled "Minimum Unforced Capacity Requirements for LSEs Serving Loads in a Locality," outlines the derivation of LSE locational capacity requirements.

The NYISO LCR study utilizes the NYSRC-approved IRM, and associated database as the starting point for annually determining the LCRs.

The LCR methodology of economic optimization[5] meets the NYSRC's 0.1 days/year LOLE reliability standard while respecting the NYSRC-approved IRM as well as the Locality transmission security limits. The optimizer is a linear program that minimizes capacity costs based on the cost curves established offset by net Energy and Ancillary Services revenues of the representative unit used to establish each ICAP

[2] NYISO 2025 - 2026 LCR Report (included as Appendix A)

[3] NYISO Market Services Tariff

[4] NYISO Installed Capacity Manual

[5] NYISO LCR Determination Process

[6] The term "net Energy and Ancillary Services revenue offset" is defined in Section 5.14.1.2.2 of the Services Tariff.

Demand Curve.[6] These curves show the relationship between the magnitude of the requirement versus the cost in each of the Localities. Once a potential total cost solution is achieved in the program, it is tested by running the GE Multi-Area Reliability Simulation (MARS) software program at the approved statewide IRM to determine the resulting LOLE. The least cost solution that satisfies all constraints is selected. Transmission security limit (TSL) floor values are designed to ensure that the program selects LCRs that are feasible from an operations perspective. These TSL floor values are based on the bulk power system transmission capability into each Locality as determined by power flow and contingency analysis. Each Locality LCR satisfies its respective TSL floor value.

Requirements for LSEs

The NYISO has forecast a NYCA peak load of 31,649.7 MW for the 2025–2026 Capability Year. The 24.4% statewide IRM adopted by the NYSRC and the peak load forecast produced an Installed Capacity requirement for the NYCA of 39,372.2 MW. The load forecast used is the peak value associated with the "October Forecast" developed for the 2025-2026 IRM study. The ICAP market will employ a load forecast that has been updated further.

The forecast peak load, available capacity (based on Capacity Resource Interconnection Service (CRIS) adjusted summer Dependable Maximum Net Capability (DMNC) testing for existing units and currently available Unforced Capacity Deliverability Rights (UDRs), Special Case Resources (SCRs), and net imports), proposed resources, as well as the 2025-2026 Capability Year statewide Installed Capacity requirement and LCRs, as well as other values are shown in Table 1.

Table 1 indicates that the statewide Installed Capacity requirement for the NYCA and the locational Capacity requirements for New York City, Long Island, and the G-J Locality can be met with expected ICAP resources for the 2025–2026 Capability Year.

[6] The term "net Energy and Ancillary Services revenue offset" is defined in Section 5.14.1.2.2 of the Services Tariff.

Table 1 Capability Year 2025 – 2026 Peak Load and LCR Requirements

Locality	Forecast Peak Load (MW) (1)	LCR (%) (2)	ICAP LCR (MW) (3)	Available ICAP (MW) (4)	Expected ICAP (MW) (5)
New York City	11,043.9	78.5%	8,669.5	9,496.7	9,480.8
Long Island	5,092.1	106.5%	5,423.1	6,025.1	6,049.7
G-J Locality	15,205.1	78.8%	11,981.6	14,379.3	14,348.8
NYCA	31,649.7	124.4%	39,372.2	40,906.9	41,422.7

1. This is the forecasted peak load associated with the "October Forecast" for the 2025-2026 IRM study.
2. This is the IRM and LCRs, expressed in terms of percentage of forecast peak load.
3. This is the IRMs and LCRs, expressed in terms of MW of ICAP based on the "Forecast Peak Load" values specified in Table 1.
4. This is the sum of CRIS adjusted DMNC summer values for each existing unit based on 2023 testing for 2024 summer capacity plus UDRs, SCRs and net imports that are currently available.
5. This is the "Available ICAP" values specified in Table 1, plus expected additions, deactivations and removals, and re-rating of units, UDRs, SCRs and net imports using the best available information as of January 16, 2025.

New York ISO

Appendix A: 2025-2026 Capability Year LCR Report

New York ISO
Independent System Operator

LOCATIONAL MINIMUM INSTALLED CAPACITY REQUIREMENTS STUDY

For the 2025-2026 Capability Year

New York ISO

I. Recommendation

This report documents a study conducted by the New York Independent System Operator, Inc. (NYISO) to determine 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 2025-2026 Capability Year beginning May 1, 2025.

On December 6, 2024, the New York State Reliability Council, L.L.C. (NYSRC) approved a New York Control Area (NYCA) Installed Reserve Margin (IRM) value of 24.4%for the 2025-2026 Capability Year. The NYISO then determined the LCRs for the 2025-2026 Capability Year using the 2025-2026 IRM study database and the NYSRC approved IRM.

Based on the NYSRC IRM study final base case for the 2025-2026 Capability Year, and the NYSRC approved IRM value of 24.4%, the NYISO's calculations result in a 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.

IRM	J LCR	K LCR	G-J LCR
24.4%	78.5%	106.5%	78.8%

II. Starting Point Database

As its starting point, the 2025-2026 LCR study utilized the NYSRC's 2025-2026 IRM study database. The IRM study information is available on the NYSRC website.[1] The 2025-2026 IRM study final base case results maintain the loss of load expectation (LOLE) criterion at no more than 0.100 event-days/year with a statewide reserve margin of 24.4% and corresponding preliminary locational requirements of 75.6% and 107.3% for New York City and Long Island, respectively.

The NYISO follows the "Locational Minimum Installed Capacity Requirements Determination Process" to develop the LCRs for Load Zone J, Load Zone K, and the G-J Locality.[2] Since the IRM determined by the 2025-2026 IRM study final base case matches the NYSRC-approved IRM of 24.4%, no adjustment to the IRM study database was needed. The target LOLE for the study, based on the NYSRC-approved 24.4% IRM value, was 0.100 event-days/year (i.e., the LOLE determined for the final base case results of the 2025-2026 IRM study).

[1] NYSRC New York Control Area Installed Capacity Requirement Reports:
https://www.nysrc.org/documents/reports/nysrc-new-york-control-area-installed-capacity-requirement-reports

[2] Locational Minimum Installed Capacity Requirements Determination Process:
https://www.nyiso.com/documents/20142/21537892/LCR-determination-process-2021.pdf

New York ISO

III. Changes from the April 19, 2024 LCR Report for the 2024-2025 Capability Year

The 2025-2026 IRM study included several impactful modeling changes compared to the 2024-2025 IRM study. For example, the 2025-2026 IRM study implemented the enhanced Special Case Resource (SCR) modeling construct.[3] The 2025-2026 IRM study also included several assumptions changes recommended by the NYSRC, including: (1) the limitation to three calls per year for voluntary curtailment and public appeals in the modeling of the emergency operating procedure steps; (2) dynamically applying emergency assistance limits across all PJM interfaces; and (3) updating from 5 year to 10 year cable outage rates.[4] The 2025-2026 IRM study also reflected the addition of 267 MW of new in-front-of-the-meter solar resources and the deactivation of 165.4 MW of thermal resources.[5]

In addition to the changes in the IRM study final base case for the 2025-2026 Capability Year, there were two changes implemented in this year's methodology for calculating the TSL floor values used in the 2025-2026 LCR study. The calculation was updated to utilize the coincident peak load for the applicable UCAP requirement calculation to improve consistency with the transmission security assessment conducted in NYISO planning studies. The NYISO also used the methodology described in Attachment N of the Installed Capacity Manual for determining derating factor calculation for intermittent resources to provide consistency with the generator UCAP to ICAP conversions used in the ICAP market as a result of implementing the capacity accreditation framework.[6]

The 2025-2026 LCR study also incorporated the proposed net cost of new entry (CONE) for the 2025-2026 Capability Year based on the ICAP Demand Curve reset (DCR) proposal the NYISO filed with the Federal Energy Regulatory Commission (FERC) on November 29, 2024.[7] Section 5.11.4 of

[3] IRM Impact Assessment of Enhanced SCR Modeling:
https://www.nysrc.org/wp-content/uploads/2024/01/SCR-Modeling-ICS-01302024-Market-Sensitive27154.pdf

[4] NYSRC Recommendations for Adoption for 2025-2026 IRM Study:
https://www.nysrc.org/wp-content/uploads/2024/06/NYSRC-Recommendations-for-Adoption_v233558.pdf

[5] 2025-2026 IRM Study Final Base Case Model Assumptions Matrix:
https://www.nysrc.org/wp-content/uploads/2024/10/IRM-2025-2026-FBC-Assumptions-Matrix-v1.0-10042024-ICS.pdf

[6] 2025-2026 Transmission Security Limit Floor Values Calculation:
https://www.nyiso.com/documents/20142/47886327/Final%20TSL%20Floor%20Values_110424%20icap.pdf

[7] *New York Independent System Operator, Inc.*, 2025-2029 ICAP Demand Curve Reset Proposal, FERC Docket No. ER25-596-000 (November 29, 2024):
https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20241129-5009&optimized=false

New York ISO

the Market Administration and Control Area Services Tariff requires the NYISO to use the filed net CONE values applicable for the first Capability Year covered by a quadrennial DCR. Therefore, the 2025-2026 final net CONE curves are based on a 200 MW, 2-hour battery energy storage in each capacity region as proposed by the NYISO in its filed proposal for the 2025-2029 DCR.

IV. LCR Determination Process

The LCR calculation methodology utilizes an economic optimization algorithm to minimize the total cost of capacity for the NYCA, taking into account net CONE curves as shown in the table below. Such net CONE curves account for the applicable net Energy and Ancillary Services revenue offset[8] of the applicable peaking plant used to establish each ICAP Demand Curve.

Location (Peaking Plant Size)	LCR (%)	2025 - 2026 Final Net CONE Curves ($/kw-yr)
NYCA (200 MW)	110.0	49.52
	113.0	49.90
	116.0	49.71
	119.0	50.12
	125.0	51.15
	128.0	51.74
G - J (200 MW)	69.0	37.22
	72.0	41.55
	75.0	45.73
	78.0	48.68
	84.0	52.27
	87.0	54.02
Zone J (200 MW)	68.4	122.25
	71.4	127.37
	74.4	132.32
	77.4	136.45
	83.4	141.48
	86.4	143.26
Zone K (200 MW)	93.3	28.91
	96.3	34.58
	99.3	39.88
	102.3	44.22
	108.3	49.83
	111.3	51.83

[8] See Section 5.14.1.2.2 of the NYISO Market Administration and Control Area Services Tariff.

New York ISO

Using this methodology, the NYSRC's LOLE resource adequacy standard will be met while utilizing the NYSRC-approved IRM and maintaining capacity requirements greater than or equal to the applicable TSL floor values, as shown in the table below.[9]

Transmission Security Limit	Formula	G-J	NYC	LI	Notes
Non-Coincident Load Forecast (MW)	[A] = IRM Study Assumption	15,205	11,044	5,092	[1]
Coincident Load Forecast	[P] = IRM Study Assumption	14,962	10,802	5,016	[1]
Bulk Power Transmission Limit (MW)	[B] = Studied	4,500	2,875	275	[2]
Net Flow Adjustment (MW)	[N] = Study Assumption	275			[3]
Offshore Wind (MW)	[O] = Calculated	0	0	38.4	[4]
UCAP Requirement (MW)	[C] = [P]-[B]+[N]+[O]	10,737	7,927	4,779	
UCAP Requirement Floor	[D] = [C]/[A]	70.6%	71.8%	93.9%	
5-Year Derating Factor	[E] = Calculated	5.90%	3.26%	8.37%	[5]
Special Case Resources (MW)	[F] = IRM Study Assumption	569.3	478.7	30.6	[6]
ICAP Requirement (MW)	[G] = ([C]/(1-[E]))+[F]	11,980	8,673	5,247	
TSL Floor (%)	[H] = [G]/[A]	78.8%	78.5%	103.0%	

[1] 2025 Fall Load Forecast[10]
[2] 2025-2026 Locality Bulk Power Transmission Capability Report[11]
[3] Long Island Bulk Power Transmission Limit Adjustment
[4] Difference in Resource Adequacy and Transmission Security UCAP Valuation
[5] 5-Year Derating Factor reflecting generation mix in the 2025-2026 IRM Final Base Case
[6] The SCR MW value reflects the assumptions used for the 2025–2026 IRM Final Base Case[12]

V. Summary of Study

The calculations and analysis in this study use the NYISO process for setting the LCRs, with the NYSRC-approved statewide IRM of 24.4% for the 2025-2026 Capability Year.

Based on the 2025-2026 IRM final base case, the applicable LOLE criterion is met with an LCR of 78.5% for the New York City Locality, an LCR of 106.5% for the Long Island Locality, and an LCR of 78.8% for the G-J Locality. The TSL floor values for Load Zone J and the G-J Locality were binding in the results of the 2025-2026 LCR study.

[9] 2025-2026 Transmission Security Limit Floor values:
https://www.nyiso.com/documents/20142/47886327/Final%20TSL%20Floor%20Values_110424%20icap.pdf

[10] NYSRC 2025-2026 Fall Forecast Update:
https://www.nyiso.com/documents/20142/47217178/01%20NYSRC%20Fall%20Forecast%20Update%20Proposed%202025%20IRM%20Forecast.pdf

[11] 2025-2026 Locality Bulk Power Transmission Report:
https://www.nyiso.com/documents/20142/47642242/2025-26%20Locality%20Bulk%20Power%20Transmission%20Capability%20Report_Final.pdf

[12] Demand Response Final Model Values for 2025-2026 IRM Study:
https://www.nysrc.org/wp-content/uploads/2024/07/2024-ICS_Final-SCR-Model-Values_ICS0730202433999.pdf

New York ISO

New York ISO

Transmission Security Limit Floor Calculation	Formula	G-J	NYC	LI	Notes
Load Forecast (MW)	[A] = Given	15,274	11,171	5,080	[1]
Bulk Power Transmission Limit (MW)	[B] = Studied	4,350	2,875	275	[2]
Net Flow Adjustment to Transmission Limit (MW)*	[N] = Study Assumption	275			[3]
Offshore Wind (MW)	[O] = Given			37.5	[4]
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%	**2.89%**	8.85%	[5]
Special Case Resources (MW)	[F] = Given	526.7	442.4	35.3	[6]
ICAP Requirement (MW)	[G] = ([C]/(1-[E]))+[F]	12,364	8,985	5,348	
ICAP Requirement Floor (%)	[H] = [G]/[A]	81.0%	**80.4%**	105.3%	

[1] 2024 Fall Load Forecast [12]
[2] Based on 2024 Locality Bulk Power Transmission Capability Report [13]
[3] LI Bulk Power Transmission Limit Adjustment
[5] 5-year Market EFORd based on the generation mix in the 2024-2025 IRM FBC
[4] Difference in Resource Adequacy and Transmission Security UCAP Valuation
[6] Modeled SCRs for 2024-2025 [14]

The NYISO conducted subsequent analysis to determine the LCR for Zone J for the 2024-2025 Capability Year accounting for the revised TSL floor value of 80.4%. Consistent with the previous results, such analysis identified the updated TSL floor value for Zone J was binding for the 2024-2025 Capability Year. The binding TSL floor values for all Localities, including the corrected 80.4% for Zone J, combined with the NYSRC approved IRM at 22.0% results in a LOLE of 0.090 event-days/year, meeting the reliability criterion of not greater than 0.100 event-days/year.

V. Summary of Study

The calculations and analysis in this study utilize the NYISO process for setting the LCRs, as well as supplemental analysis to account for a subsequently identified correction to the TSL floor value for Zone J, with the NYSRC-approved statewide IRM of 22.0% for the 2024-2025 Capability Year.

Based on the NYSRC's final IRM base case for the 2024–2025 Capability Year, the applicable LOLE criterion is met with an LCR of 80.4% for the New York City Locality, an LCR of 105.3% for the Long Island Locality, and an LCR of 81.0% for the G-J Locality.

[12] NYSRC Fall Forecast Update:
https://www.nyiso.com/documents/20142/40206684/NYSRC%20Fall%20Forecast%20Update%20Updated%202023%20Weather%20Normalization%20&%20Proposed%202024%20IRM%20Forecast.pdf

[13] 2024-25 Locality Bulk Power Transmission Capability Report:
https://www.nyiso.com/documents/20142/40834869/2024-25%20Locality%20Bulk%20Power%20Transmission%20Capability%20Report.pdf

[14] Demand Response: Final Model Values for 2024 IRM Studies:
https://www.nysrc.org/wp-content/uploads/2023/07/2023-ICS_Final-SCR-Model-Values20598.pdf

Appendix B: LCR Determination Process

Locational Minimum Installed Capacity Requirements Determination Process

1. Introduction

1.1. This document describes the process[1] that NYISO follows to determine the Locational Minimum Installed Capacity Requirements[2] (LCRs) for the Localities, presently Zone J – New York City, Zone K – Long Island, and the G-J Locality (Zones G, H, I, and J).

2. Initial Conditions

2.1. The database available from the Installed Reserve Margin (IRM) study is used, adjusted to the IRM value approved by the NYSRC for the upcoming Capability Year.

2.1.1. The NYISO will use a Loss of Load Expectation (LOLE) that is the lesser of (a) 0.100 days/year and (b) the LOLE that results from the NYSRC Installed Capacity Subcommittee's adjustment to the IRM database (specified with three decimal point precision). This LOLE is referred to as the "target LOLE".

2.2. All NYISO runs under this process occur with the NYCA Minimum Installed Capacity Requirement set using the approved IRM.

2.3. The NYISO will utilize LCR economic optimization software ("LCR software"), constructed as follows:

[1] On October 5, 2018, FERC accepted proposed revisions to Section 5.11.4 of the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff") that provides the methodology that the NYISO uses for determining LCRs. This new methodology utilizes an economic optimization algorithm to minimize the total cost of capacity for the NYCA. This new methodology will result in continuing to meet the NYSRC's 0.1 days/year LOLE reliability standard while respecting the NYSRC-approved IRM.

[2] Capitalized terms not defined herein have the meaning set forth in the Services Tariff.

$$Minimize:$$

$$Cost\ of\ Capacity\ Procurement = [Q_J + LOE_J] \times P_J(Q_J + LOE_J) + [Q_K + LOE_K] \times P_K(Q_K + LOE_K)$$

$$+[Q_{(G-J)} + LOE_{(G-J)} - Q_J - LOE_J] \times P_{(G-J)}(Q_{(G-J)} + LOE_{(G-J)})$$

$$+[Q_{NYCA} + LOE_{NYCA} - Q_{(G-J)} - LOE_{(G-J)} - Q_K - LOE_K] \times P_{NYCA}(Q_{NYCA} + LOE_{NYCA})$$

$$Subject\ to:$$

$$NYCA\ system\ LOLE \leq target\ LOLE$$

$$Q_{NYCA} = NYCA\ system\ peak\ load\ forecast \times (1 + NYSRC\ approved\ IRM)$$

$$Q_J \geq Q_{TSL(J)}$$

$$Q_K \geq Q_{TSL(K)}$$

$$Q_{(G-J)} \geq Q_{TSL(G-J)}$$

Wherein

$Q_J, Q_K, Q_{(G-J)}$ are the quantity of capacity, expressed in megawatts, required in J Locality, K Locality, and G-J Locality, respectively, which is the product of the Locality's non-coincident peak load forecast and the corresponding LCR values.

$Q_{TSL(J)}, Q_{TSL(K)}, Q_{TSL(G-J)}$ are the quantity of LCR floor restriction, expressed in megawatts, due to the transmission security limit for J Locality, K Locality, and G-J Locality, respectively.

Q_{NYCA} is the quantity of capacity, expressed in megawatts, required for NYCA, which is the product of NYCA system peak load forecast and the value of (1 + NYSRC approved IRM).

$LOE_J, LOE_K, LOE_{(G-J)}, LOE_{NYCA}$ are the quantity of level of excess condition, expressed in megawatts, for J Locality, K Locality, G-J Locality, and NYCA, respectively.

$P_J(Q_J + LOE_J), P_K(Q_K + LOE_K), P_{G-J}(Q_{(G-J)} + LOE_{(G-J)}), P_{NYCA}(Q_{NYCA} + LOE_{NYCA})$ are the price of capacity for the given quantity of capacity in J Locality, K Locality, G-J Locality, and NYCA, respectively (noting that the ICAP Demand Curve reset process calculates Net CONE at the level of excess condition).

2.3.1.1. These equations are used to determine LCRs such that the cost of capacity is minimized, while at the same time holding unchanged the NYSRC approved IRM, maintaining an LOLE of less than or equal to 0.100 days/year, and maintaining capacity requirements greater than or equal to the applicable Transmission Security Limit, the foregoing described herein.

2.3.2. The additional tables used to run the optimizer are appended to the IRM database referenced in step 2.1. The data and zonal capacity shifting specified in these tables will be consistent with those present in the final IRM database.

2.3.3. When identifying the price of capacity at the level of excess prescribed in Section 5.11.4(a) of the Services Tariff, cost curves established (a) in a Demand Curve Reset Filing Year will use the results of net Energy and Ancillary Services revenues determined in the quadrennial ICAP Demand Curve tariff processes and (b) in Demand Curve annual update years, all points on each cost curve will be determined by changing each point on the current Capability Year's cost curve to reflect the difference between the upcoming Capability Year's Net CONE value and the current Capability Year's Net CONE value.

2.3.4. Transmission Security Limits are determined using the equations and inputs specified in the table below

Transmission Security Limit Calculation	Units	Formula	G-J Locality	NYC	LI
Load forecast for the LCR Study	MW	[A] = User Input			
Bulk Power Transmission Capability	MW	[B] = User Input			
UCAP Requirement (MW)	MW	[C] = [A]-[B]			
UCAP Requirement Percent	(%)	[D] = [C]/[A]			
Locality derating factor	(%)	[E] = User Input			
ICAP Requirement (MW)	MW	[F] = [C]/(1-[E])			
Transmission Security Limit	**%**	**[G] = ROUND([F]/[A], to 0.1% increments)**			

2.4. The NYISO will present to stakeholders informational draft LCRs and accompanying preliminary input information, as available (such as the IRM Load forecast, bulk power transmission capability, derating factors, Transmission Security Limits, and Net CONE Curves), in the 4th quarter of the calendar year. This presentation will include discussion of the factors causing year-over-year changes in LCRs.

3. LCR Case Adjustments

3.1. The NYISO will solve for the target LOLE. That is, the NYISO will use a Loss of Load Expectation (LOLE) that is the lesser of (a) 0.100 days/year and (b) the LOLE that results from the NYSRC Installed Capacity Subcommittee's adjustment to the IRM database (specified with three decimal point precision).

3.2. The NYISO will identify any material capability changes.

3.2.1. Material capability changes, as used in this process, means individual changes that would increase or decrease generation, CRIS MW, or transmission transfer capability by 200 MW or greater.

3.3.2. Notify the NYSRC of any material capability changes.

3.3.3 If the NYSRC chooses to adopt the material capability change for the IRM, the same update will be made in the assumptions used by the NYISO to calculate the LCRs.

4. Determination of the Final LCR Values

4.1. Using the final LCR case, Net CONE Curves, and TSLs, run the LCR software to determine unrounded LCRs.

4.2. The LCR software returns results with multiple decimal point precision (i.e, unrounded LCRs). LCRs are set in 0.1 percentage point increments in order to be converted to Locational Minimum Unforced Capacity Values allocated to LSEs and implemented in the ICAP AMS. Therefore, in order to set the LCR values, there may be a need to round those values up or down to the neighboring 0.1 percentage point.

4.3. If rounding is utilized, the NYISO will test these resulting values by running the MARS model and verifying the LOLE achieves the target LOLE value in Section 2.

4.4. If necessary to achieve at least the LOLE, the NYISO will adjust the LCR values in 0.1 percentage point increments. For such adjustments, the NYISO will first adjust Localities whose LCRs were rounded downward in the step 4.1 above (e.g., a Locality whose LCR was rounded downward from 90.14% to 90.1%).

4.5. The NYISO will present the resulting LCRs to the NYISO Operating Committee.

4.6. The NYISO will post to its website the final LCRs, LCR Report, Transmission Security Limits, Net CONE Curves, and other applicable supporting data for the upcoming Capability Year.