New York ISO
Independent System Operator

Resource Adequacy Reliability Rules: Consideration of Seasonal Capacity Requirements

Yvonne Huang

ICAP Market Operations, NYISO

RRS Meeting #301

September 4, 2025

Background – Resource Adequacy Reliability Rules

- **The New York State Reliability Council (NYSRC) established the following reliability rules addressing resource adequacy:**

#	Rule Title	Description
A.1	Establishing NYCA Installed Reserve Margin Requirements	An Installed Reserve Margin (IRM) requirement for the NYCA for each Capability Year shall be established.
A.2	Establishing Load Serving Entity Installed Capacity Requirements	Load Serving Entity installed capacity requirements, including Locational Capacity Requirements, for each Capability Year shall be established.
A.3	Review of Resource Adequacy	The adequacy of planned NYCA resources shall be assessed to demonstrate conformance with the NYSRC resource adequacy requirements.

- **Currently, these requirements are structured as annual considerations.**
  - The IRM and the Locational Minimum Installed Capacity Requirements (LCRs) are established annually and
  - The installed capacity requirements for the Load Serving Entities (LSEs) are also established accordingly and based on summer peak conditions

New York ISO

Background – Winter Reliability Risks

- **Historically, the reliability risks of the NYCA system, both during grid operation and in the IRM study, were concentrated during the peak demand period within the summer season. Therefore, the installed capacity requirements based on summer peak conditions are sufficient to address reliability risk for the entire year.**
  - Winter demand has been substantially lower than demand during the summer season and the majority of the NYCA thermal fleet typically has higher capability during the winter season
- **Over the recent years, tightening conditions have been experienced during winter grid operations and reliability risks during winter are expected to grow in the future. Currently, winter Loss of Load Expectation (LOLE) is present in the 2026-2027 IRM model for the Preliminary Base Case**
  - The NYISO's 2025 Load & Capacity Data report (Gold Book) forecasts that the NYCA will become a winter peaking system by 2040
  - Starting with the IRM study for 2026-2027 Capability Year, winter fuel availability constraint modeling is included to reflect reduced capacity during winter peak periods due to constraints on available fuel for fossil-fired generation.
  - In addition, the Champlain Hudson Power Express (CHPE) project is expected to become a capacity resource during the 2026-2027 Capability Year, with an expectation of significantly lower capability during the winter season compared to the summer season
- **With the growing winter reliability risks, the installed capacity requirements will need to consider winter peak conditions.**
  - The NYISO is currently developing market design enhancements to establish capacity requirements for LSEs on a seasonal basis while respecting the annual IRM as approved by the NYSRC.[1]

1. August 15, 2025 NYSRC Executive Committee Presentation

New York ISO

Existing Reliability Rules

- **The NYISO assessed the current reliability rules against the need for more accurate representation of the reliability risks in different seasons, and identified that adjustments may be warranted to provide additional clarity and accommodate considerations for seasonal reliability risks (see Appendix for potential revisions to Reliability Rules A.2, A.2 R1, and A.2 R2):**
  - The general description of Reliability Rule A.2 currently refers to installed capacity requirements based only on the *Capability Year*
  - A.2 R1. requires the LSE capacity requirements and LCRs to be established *annually*

    "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 …."
  - A.2 R2. similarly implies an annual value for LSE ICAP requirements

    "LSEs shall procure sufficient resource capacity for the entire NYISO defined obligation procurement period so as to meet the ICAP requirements and LCRs as established by the NYISO in accordance with R1 requirements and NYISO tariffs so as to meet the statewide IRM requirement determined from Reliability Rule A.1."
  - A.2 R2.1 makes duplicate references to ICAP obligations and LCRs that may cause unnecessary confusion given the LSE ICAP obligations include consideration of LCRs

    "Each LSE shall certify and maintain its ICAP obligation for the next Capability Period, including any LCRs, in accordance with LSE ICAP requirements established by the NYISO Tariffs and procedures."

Existing Reliability Rules (cont.)

- **The NYISO also identified that clarification of Reliability Rule A.2 R3 may be warranted for better alignment with current capacity market procedures**
- **The NYISO recommends further discussions regarding the potential scope of such revisions**
  - A.2 R3 requires the NYISO to identify any deficiencies in meeting capacity requirements in advance of the start of the Capability Year and to issue deficiency notices and charges accordingly.

    "The NYISO shall notify those LSEs that are determined to be deficient in meeting their ICAP requirements, including LCRs for the next Capability Year. This notification shall specify appropriate deficiency charges. The NYSRC shall be immediately notified of such capacity deficiencies, including any measures that may be planned to minimize reliability impacts."
  - Currently, mandatory capacity auctions are conducted monthly with the auction results for each such auction reported publicly upon completion.
  - If a shortage occurs after securing all possible capacity in an auction, the clearing price of the auction will be high to reflect such shortage and such outcome will be known publicly through posting of the auction results.
  - The NYISO's Tariff has existing requirements for the allocation of costs for deficient auction outcomes to LSEs and procedures for utilizing such collections to seek procurement of supplemental capacity supply

New York ISO

Recommendations and Next Steps

- **The NYISO recommends proceeding with the modifications to Reliability Rules A.2, A.2 R1 and A.2 R2 consistent with the revisions identified in the Appendix to provide additional clarity and accommodate considerations for seasonal reliability risks. The NYISO recommends the updated reliability rules be effective staring with the 2026-2027 Capability Year**
  - The proposed effective date will allow time to develop/implement updated compliance reporting for any approved modifications to Reliability Rules A.2 before the NYISO implements seasonal capacity requirements
- **The NYISO will continue working with the Reliability Rules Subcommittee to review and develop potential clarifying revisions to Reliability Rule A.2 R3, targeting to implement any approved revisions starting with the 2026-2027 Capability Year**
- **The NYISO will work with the Reliability Rules Subcommittee and the Reliability Compliance Monitoring Subcommittee to enhance the compliance reporting for any approved modifications to Reliability Rules A.2**
- **The NYISO will continue working with Installed Capacity Subcommittee and the Executive Committee in reviewing the NYISO's proposed methodology for calculating seasonal capacity requirements, to ensure the final market design is compatible with applicable NYSRC reliability rules**
  - The NYISO currently seeks to implement the final market design for the winter reliability enhancements no later than the 2027-2028 Capability Year

New York ISO

Appendix

– Potential Revisions to Reliability Rules A.2, A.2 R1 and A.2 R2

New York ISO

Potential Revisions

A.2 General Description

Load Serving Entity installed capacity requirements, including Locational Capacity Requirements, for the applicable *NYISO* defined obligation procurement period ~~each Capability Year~~ shall be established.

A.2 R1.

The *NYISO* shall ~~annually~~ establish the appropriate *Load Serving Entity* (LSE) *installed capacity* (ICAP) requirements for the applicable *NYISO* defined obligation procurement period, including *Locational Capacity Requirements* (LCRs) in accordance with *NYSRC* rules and *NYISO* tariffs.

A.2 R2.

LSEs shall procure sufficient *resource capacity* for the entire NYISO defined obligation procurement period so as to meet the applicable ICAP requirements ~~and LCRs as~~ established by the NYISO in accordance with R1 requirements and NYISO tariffs so as to meet the statewide IRM requirement determined from Reliability Rule A.1.

- R2.1: Each *LSE* shall certify and maintain its ICAP obligation for ~~the next~~ each *NYISO* defined obligation procurement period ~~*Capability Period*, including any LCRs~~, in accordance with *LSE ICAP* requirements established by the *NYISO* tariffs and procedures.

New York ISO

Questions?

New York ISO

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

New York ISO