Attachment #7.2.2
Return to Agenda

New York ISO
Independent System Operator

Winter Reliability Capacity Enhancements: Concept Proposal

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NYSRC – Executive Committe
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Agenda

- Project Objective
- Project Status
- Market Design Concept Proposal
- Next Steps

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Project Objective

- **The NYISO's Installed Capacity (ICAP) market is seasonal, but many processes and requirements in the ICAP market are annual and currently based on the summer peak.**
  - Annually derived ICAP market parameters may no longer produce incentives that support efficient market outcomes as modeled winter resource adequacy risk becomes more pronounced.
- **The project aims to develop potential changes to the ICAP market to support efficient market outcomes as the NYCA trends towards increasing winter resource adequacy risk.**
  - This year's efforts are focused on developing winter capacity requirements, seasonal demand curves, and seasonal elections rules.
- **The 2025 project goal is Market Design Complete.**

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Project Status

- **The NYISO is currently discussing the Market Design Concept Proposal with its stakeholders.**
  - The most recent concept proposal was discussed at the July 29, 2025, ICAPWG meeting.
- **The NYISO is now refining and updating the Market Design Concept Proposal based on feedback received from its stakeholders.**
  - The proposed concepts in the following slides are still under discussion and may be revised

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Market Design Concept Proposal

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Seasonal Elections for Unforced Capacity Deliverability Rights and External-to-Rest of State Deliverability Rights

- **Continuation of Existing Election Requirements:**
  - To support the timeline of the annual New York State Reliability Council (NYSRC) Installed Reserve Margin (IRM) study, ICAP Suppliers will continue to be required to submit elections by August 1 prior to the subject Capability Year.
  - Annual participation model, duration, and firm fuel elections will continue to apply to the entire Capability Year. The elected value will be used as a consistent assumption in the IRM study.
- **New Market Design Element:**
  - On August 1 prior to the applicable Capability Year, Unforced Capacity Deliverability Rights (UDRs) and External-to-Rest of State Deliverability Rights (EDRs) holders will be required to submit distinct seasonal elections: one for the Summer Capability Period and one for the Winter Capability Period.
  - These two separate election values may provide more accurate input of available capacity in the applicable season that can be reflected in the IRM study.

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Seasonal NYCA Minimum ICAP Requirements

- The NYISO proposes to expand the existing annual NYCA Minimum ICAP Requirement to develop seasonal requirements to better account for the differences in the amount of available capacity and the reliability requirements between the Summer and Winter Capability Period due to the anticipated shift in reliability risk to the winter.
  - Historically, NYCA Minimum ICAP Requirements allocated to Load Serving Entities for a Capability Year have been based on the summer peak.
- The separate Summer and Winter NYCA Minimum ICAP Requirements would be based on the final IRM study case reflecting the NYSRC-approved IRM to ensure the reliability criterion of 0.1 Loss of Load Expectation (LOLE) is met.

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Seasonal NYCA Minimum ICAP Requirements: Calculation

- **Implementing seasonal NYCA Minimum ICAP Requirements would update the NYISO's ICAP market processes but would not impact the NYSRC process for approving the IRM value.**
- **The Summer NYCA Minimum ICAP Requirement calculation will remain unchanged; it will continue to be consistent with the NYSRC-approved IRM value.**
  - The Summer NYCA Minimum ICAP Requirement will continue to be calculated as follows:
    - **Summer NYCA Minimum ICAP Requirement = NYCA Summer Forecasted Peak Load x (1 + IRM)**
- **The Winter NYCA Minimum ICAP Requirement will be derived from the available capacity in the winter peak month as modeled in the final IRM study case, which reflects the NYSRC-approved IRM.**
  - The annual capacity as modeled in the NYSRC-approved IRM case will be used to determine the Winter NYCA Minimum ICAP Requirement to maintain the annual LOLE criteria.
    - **Winter NYCA Minimum ICAP Requirement = NYCA Winter Forecasted Peak Load x (1 + Winter Reserve Margin)**

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Seasonal Transmission Security Limit Floor Values and Locational Minimum Installed Capacity Requirements

- To implement NYCA seasonal requirements, seasonal transmission security limit (TSL) floor values and Locational Minimum Installed Capacity Requirements (LCRs) must be calculated.
- Seasonal TSL floor values will be based on calculation parameters that are expanded to account for seasonal differences such as, but not limited to, load forecast and bulk power transmission limits.
- The LCR study process, including inputs to the LCR optimizer such as the final IRM base case, the NYSRC-approved IRM, the targeted LOLE, and TSL floor values, will remain unchanged.
  - A process to account for both summer and winter TSL floor values will need to be developed.
- The Winter LCRs will be derived from the available capacity in each Locality in the winter peak month of the final IRM base case, similar to the calculation of Winter NYCA ICAP Requirement. The Winter LCRs will be calculated against the applicable Locality non-coincident peak load forecast as modeled in the final IRM base case.

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Retention of Annual Capacity Accreditation Factors

- Capacity Accreditation Factors (CAFs) reflect the marginal reliability contributions of Resources participating in the ICAP market towards meeting the NYSRC resource adequacy requirements for the upcoming Capability Year.
- The NYISO utilizes the final LCR case as the starting point for calculating the annual CAFs for each Capacity Accreditation Resource Class (CARC).
- CAFs will continue to be calculated using the final LCR case and applied annually to Resources using the marginal reliability improvement (MRI) technique.
- The applicable CAF will continue to be assigned to a Resource based on its CARC assignment and location.

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ICAP Demand Curves: Winter-to-Summer Ratio and Updates

- **The NYISO will review the ICAP Demand Curve parameters to ensure annual revenue sufficiency is maintained in aggregate across the Summer and Winter Capability Periods given the introduction of seasonal requirements and identify any additional enhancements that may be warranted.**
  - The proposed development of seasonal requirements directly represents the amount of capacity needed to maintain the system at criteria, eliminating the need for seasonal capacity availability adjustments used in the demand curve parameters.

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Next Steps

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Next Steps

- The NYISO will continue to work with its stakeholders at the ICAPWG to finalize proposed ICAP market rule changes
- The NYISO will also work with the NYSRC to ensure the final market design is compatible with applicable NYSRC reliability rules.
  - Currently, the annual NYCA Minimum ICAP Requirement that is based on summer peak is consistent with the NYSRC reliability rules on resource adequacy and capacity requirements.
- Once finalized, the NYISO will return to the NYSRC EC to provide an update on the final market design
- The NYISO seeks to implement the final market design for the winter reliability enhancements no later than the 2027–2028 Capability Year.

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Appendix

Previous ICAPWG Presentations

Date	Working Group	Discussion Points and Links to Materials
January 30, 2025	ICAPWG	2025 Winter Reliability Capacity Enhancements: Project Kick-off https://www.nyiso.com/documents/20142/49408264/04%202025%20Winter%20Reliability%20Kick-off%20Presentation.pdf/
April 1, 2025	ICAPWG	Winter Reliability Capacity Enhancements: Winter Requirements https://www.nyiso.com/documents/20142/50614388/2025%20Winter%20Reliability%20Capacity%20Enhancements%20April%201%20ICAPWG%20(1).pdf/
April 9, 2025	ICAPWG	Winter Reliability Capacity Enhancements: Seasonal Elections https://www.nyiso.com/documents/20142/50769536/2025%20Winter%20Reliability%20-%20Seasonal%20Elections%204.9.25%20Final.pdf/
May 5, 2025	ICAPWG	Winter Reliability Capacity Enhancements: Existing Annual Capacity Accreditation Factor Methodology https://www.nyiso.com/documents/20142/51249988/Winter%20Reliability%20-%20Annual%20CAF%20Methodology%205.5.25%20-%20Final.pdf/
May 20, 2025	ICAPWG	2025 Winter Reliability Capacity Enhancements: Demand Curves Review https://www.nyiso.com/documents/20142/51501157/Winter%20Reliability%20-%20Demand%20Curves%2052025%20icap.pdf/
July 29, 2025	ICAPWG	Winter Reliability Capacity Enhancements: Concept Proposal https://www.nyiso.com/documents/20142/52778669/2025%20Winter%20Reliability%20-%20July%2029%20ICAPWG%20MDC_Final.1.pdf/

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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

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