

Comprehensive Mitigation Review

Mike DeSocio Director, Market Design

Zach T. Smith Manager, Capacity Market Design

MC

November 17, 2021

Agenda

- **Background**
- **CMR Proposal**
 - BSM Reforms
 - Capacity Accreditation
 - ICAP/UCAP Reference Price Translation
- **Tariff Revisions**
 - BSM Reforms
 - Capacity Accreditation
 - ICAP/UCAP Reference Price Translation
- **Schedule**
- **Next Steps**
- **Appendix**

Background

Background

- **The current Buyer Side Mitigation (BSM) rules when applied to state supported resources are increasingly viewed by both state and federal regulators as costly to consumers, resulting in inefficient outcomes that are ultimately counterproductive**
- **The NYISO believes that any modification of BSM rules must support just and reasonable Installed Capacity (ICAP) Market rates, continue to allow the ICAP Market to attract and retain resources to maintain resource adequacy, be supported by stakeholders and the FERC, and be legally durable**
 - Therefore, the role of accurately valuing installed capacity resources' contribution to resource adequacy is extremely important when considering BSM reforms
 - The NYISO has adjusted the schedule for Improving Capacity Accreditation accordingly
- **The premise of the new approach aims to:**
 - Eliminate BSM risk for CLCPA resources
 - Simplify currently complex and administratively burdensome BSM process

CMR Proposal

Proposal Overview

- **The NYISO's Comprehensive Mitigation Review proposal includes the following:**
 - BSM Reforms
 - New resources that are required to satisfy the goals specified in the CLCPA will not be subject to review by the NYISO under the BSM rules or otherwise subject to an offer floor
 - Capacity Accreditation
 - The NYISO is proposing a framework to reexamine the capacity accreditation of all resource types in the NYISO's ICAP Market
 - ICAP/UCAP Reference Price Translation
 - The NYISO is proposing to adopt Potomac Economics' recommendation to translate the ICAP Reference Price to a UCAP Reference Price using the derating factor of the peaking unit underlying the relevant ICAP Demand Curve
- **Analysis on the Comprehensive Mitigation Review proposal has been completed by Analysis Group, Potomac Economics, and the NYISO**
 - Analysis Group's supporting analysis examined the impact of a large influx of state-supported resources into the NYISO's ICAP Market
 - NYISO and Potomac Economics' Consumer Impact Analyses were presented at the November 2, 2021 ICAPWG
- **As indicated by the supporting analyses all aspects of this proposal are necessary to ensure that the ICAP Market remains competitive and effective, and continues to provide just and reasonable outcomes**

BSM Reforms Proposal

Policy Resource Exclusion

- **New resources that are required to satisfy the goals specified in the CLCPA will not be subject to review by the NYISO under the BSM rules or otherwise subject to an offer floor**
- **Resource types that will not be subject to review include, but are not limited to:**
 - Wind
 - Solar
 - Storage
 - Hydroelectric technologies (including tidal, ocean, and wave generation)
 - Geothermal
 - Fuel cells that do not use fossil fuels
 - Demand Response (participating as a SCR or DER)
- **The resources explicitly identified above will automatically be excluded from the BSM rules and will not be considered an Examined Facility as BSM reviews are performed for a Class Year, Additional Deliverability Study, or Expedited Deliverability Study**
 - For example, Co-located Storage Resources that are comprised of storage, wind or solar would be excluded from BSM based on the above rules

Policy Resource Exclusion

- **The NYISO will include additional resource types that satisfy the CLCPA goals, beyond those previously specified, if any of the following applies:**
 - The technology type is specifically identified by the Act or as publicly identified by New York State as supporting the goals of the CLCPA;
 - The resource has a contract with NYSERDA (for example, under an applicable Tier) supporting the goals of the CLCPA; or
 - The resource is eligible to receive a contract authorized by New York State or its agents, such as NYSERDA, that is supporting the goals of the CLCPA.
- **A resource must provide self-certification that it is a CLCPA resource and satisfies the applicable elements stated above**
 - The resource must provide a self-certification to the NYISO by the ATBA lockdown date
- **The resources identified above will be excluded from the BSM rules and will not be considered an Examined Facility as BSM reviews are performed for a Class Year, Additional Deliverability Study, or Expedited Deliverability Study**
 - For example, UDR Projects that certify eligibility for Tier 4 RECs would be included under this provision

Further Details

- **The Renewable Exemption, in its current form, would no longer be necessary and, therefore, be eliminated**
- **Other existing exemptions, such as Competitive Entry and Self-Supply, would remain available to qualifying resources**
- **The current process involving the Part A & Part B tests would still be performed for resources subject to BSM**

Capacity Accreditation Proposal

Capacity Accreditation Proposal

- **The NYISO is proposing to review Capacity Accreditation Factors for each Capacity Accreditation Resource Class annually in preparation of the upcoming Capability Year**
- **The NYISO is proposing to use the IRM and LCR studies as a base for the annual review performed at-criterion**
 - The IRM database and recommendations are vetted and established through an open and transparent New York State Reliability Council (NYSRC) process
 - In particular, the NYSRC reliability rules can be found in Policy No. 5-15¹
 - The NYSRC Installed Capacity Subcommittee² (ICS) oversees this process which generally begins in June the year before the Capability Year the for which IRM being studied becomes effective
 - For example, to establish the IRM for Capability Year 2021/2022, the ICS process began in June 2020
 - The NYISO will provide periodic updates on the status of the IRM database to the ICAPWG
 - This would align the capacity accreditation study very closely with the current resource adequacy structures in use by the ICAP Market
 - Aligning these two processes would ensure that resources continue to receive ICAP payments based on both:
 - How they contribute to reliability as modeled in the IRM and LCR setting process, and
 - Their individual performance or availability

¹NYSRC Policy 5-15 can be found at: [https://www.nysrc.org/PDF/Policies/Policy 5-15.pdf](https://www.nysrc.org/PDF/Policies/Policy%205-15.pdf)

²ICS meeting materials, including the assumptions used for that IRM study, can be found at: [https://www.nysrc.org/IC Subcommittee/current ics schedule.html](https://www.nysrc.org/IC%20Subcommittee/current%20ics%20schedule.html)

Capacity Accreditation Proposal

- **The NYISO is proposing to review Capacity Accreditation Factors for each Capacity Accreditation Resource Classes at the relevant ICAP Market locations**
- **Performing this study at more granular ICAP Market locations acknowledges that some resources with similar characteristics located in transmission constrained regions or the NYCA have different contributions to reliability**
 - Similarly, the diversity benefits from the resource mix can be muted by limitations in transmission
 - This will also help to send efficient price signals on where resource characteristics are needed
 - The ICAP Market locations for evaluation will include Rest of State, G-J Locality (excluding Load Zone J), NYC Locality, and Long Island Locality
- **The NYISO is proposing that each ICAP Supplier is assigned to a Capacity Accreditation Resource Class**
 - All Capacity Accreditation Resource Classes will be evaluated in all relevant ICAP Market locations to determine the applicable Capacity Accreditation Factor to the assigned ICAP Suppliers in that class and location
 - Phase 2 will focus on the procedures to performing this review

Capacity Accreditation Proposal

- **The NYISO is proposing that Capacity Accreditation Factors reflect the marginal reliability contribution of ICAP Suppliers within each Capacity Accreditation Resource Class toward meeting NYSRC resource adequacy requirements**
 - The NYISO also believes using marginal capacity accreditation values best aligns with the NYISO's wholesale market structures
 - The NYISO believes that using marginal capacity accreditation values will result in more efficient signals for attracting and retaining resources in New York, regardless of whether those resources receive out of market payments or rely more heavily on capacity market revenues, by properly signaling which resource types are best suited to support grid reliability
 - This also has the benefit of reduced capacity market and overall costs for consumers

ICAP/UCAP Reference Price Translation Proposal

ICAP/UCAP Reference Price Translation

- **As part of this market design, the NYISO is proposing to adopt the MMU's recommendation to translate the ICAP Reference Price to a UCAP Reference Price using the derating factor of the peaking unit underlying each ICAP Demand Curve**
 - Currently, the ICAP Reference Price is converted to the UCAP Reference Price using the system-wide derating factor
 - Typically, the system-wide derating factor is higher than the derating factor for the peaking unit, which is a new plant
 - As more resources with high derating factors are added to the system, this would cause the UCAP Reference Price to increase significantly
 - This would cause the peaking unit at the prescribed level of excess to be paid more than the annual revenue requirement of the unit

Tariff Revisions

BSM Tariff Revisions

BSM Tariff Revisions

- **As a part of the BSM Reforms, the NYISO has identified sections in Attachment H that have been revised as a part of this proposal**
 - Substantial edits were made to define new terms and incorporate edits to include the resource types that are exempt from the BSM rules or otherwise subject to an offer floor, as well as delete previous Tariff language related to subjecting SCRs to BSM determinations and awarding Renewable Exemptions to purely intermittent renewable resources
 - Attachment H revisions detailed in the Appendix

Capacity Accreditation Tariff Revisions

Capacity Accreditation Tariff Revisions

- **The NYISO has identified sections of MST 2.3 and 5.12 that have been revised as part of this proposal**
 - MST 2.3 has been revised to incorporate the terms “Capacity Accreditation Factor” and “Capacity Accreditation Resource Class”
 - MST 5.12.6.2 has been revised to clarify that the current construct for calculating UCAP for Intermittent Power Resources and Limited Control RoR Hydro will be utilized until the Capability Year 2024
 - MST 5.12.14 has been updated with the proposed new framework to address the capacity accreditation changes
 - Further details provided in the Appendix

ICAP/UCAP Reference Price Translation Tariff Revisions

Tariff Revisions

■ Section 5.14.1.2: Demand Curve and Adjustments

- Revisions have been made to describe the NYISO's proposed methodology for utilizing the derating factor of the peaking plant used to establish each ICAP Demand Curve when translating the ICAP Reference Point to a UCAP Reference Point

Schedule

Schedule Overview

- **The NYISO is pursuing BSM Reforms in time for the Class Year 2021 BSM evaluations**
- **The NYISO intends to address capacity accreditation in different phases**
 - Phase 1 includes tariff changes for the proposed market design and will conclude with FERC acceptance
 - Phase 2 will discuss the procedures and details of capacity accreditation and is expected to start in early 2022 and continue throughout 2022 as part of the Improving Capacity Accreditation Project
 - Phase 3 will focus on the implementation of the capacity accreditation review as part of the Capacity Value Study project
 - The NYISO intends to implement the updated capacity accreditation rules for the Capability Year that begins May 2024
- **The NYISO intends to implement the ICAP/UCAP Reference Price Translation changes with the capacity accreditation rule changes for the Capability Year that begins May 2024**
- **Assessment of financial risk of changes in future revenues is incorporated in the next Demand Curve Reset process beginning in 2023**

Next Steps

Next Steps

- **The NYISO intends to bring the proposal to its Board of Directors in early December 2021 and file with FERC before the end of 2021**

Questions?

Appendix

Previous Discussions

Previous Discussions

Date	Working Group	Discussion Points and Links to Materials
April 20, 2021	ICAPWG	Kick-off presentation discussing Preparing the Capacity Market for the Grid in Transition: https://www.nyiso.com/documents/20142/20839079/20210420%20NYISO%20-%20Preparing%20the%20Capacity%20Market%20for%20the%20Grid%20in%20Transition.pdf
June 3, 2021	ICAPWG	Buyer Side Mitigation Reforms Considerations: https://www.nyiso.com/documents/20142/21942500/20210603%20NYISO%20-%20BSM%20Reforms%20Consideration%20vFinal.pdf
June 30, 2021	ICAPWG	Working Group Schedule for Comprehensive Mitigation Review: https://www.nyiso.com/documents/20142/22643498/20210630%20NYISO%20-%20BSM%20and%20Capacity%20Accreditation%20Working%20Group%20Schedule.pdf
July 13, 2021	ICAPWG	Buyer Side Mitigation Reforms Proposal and Other Considerations: https://www.nyiso.com/documents/20142/22967297/20210713%20NYISO%20-%20BSM%20Reforms%20Proposal.pdf
August 5, 2021	ICAPWG	Buyer Side Mitigation Reforms Proposal: https://www.nyiso.com/documents/20142/23590734/20210805%20NYISO%20-%20BSM%20Reforms%20Proposal.pdf Review of Existing Capacity Accreditation Rules: https://www.nyiso.com/documents/20142/23590734/20210805%20NYISO%20-%20Capacity%20Accreditation%20Current%20Rules%20Final.pdf

Previous Discussions (cont.)

Date	Working Group	Discussion Points and Links to Materials
August 9, 2021	ICAPWG	<p>Buyer Side Mitigation Analysis Scope (Analysis Group): https://www.nyiso.com/documents/20142/23645207/Introductory%20Presentation%20Draft%2020210804.pdf</p> <p>Capacity Accreditation Design Principles (Potomac Economics): https://www.nyiso.com/documents/20142/23645207/20210730%20Potomac%20-%20Capacity%20Accreditation%20-%20Conceptual%20Framework-7-30-2021.pdf</p> <p>Capacity Accreditation Proposal: https://www.nyiso.com/documents/20142/23645207/20210809%20NYISO%20-%20Capacity%20Accreditation%20Straw%20Proposal.pdf</p>
August 30, 2021 & August 31, 2021	ICAPWG	<p>ELCC Concepts & Considerations for Implementation (E3): https://www.nyiso.com/documents/20142/24172725/NYISO%20ELCC_210820_August%2030%20Presentation.pdf</p> <p>Capacity Accreditation – Marginal vs. Average (Potomac Economics): https://www.nyiso.com/documents/20142/24172725/Capacity%20Accreditation%20-%20Marginal%20vs%20Average%20-%20for%20Aug%2030--08-25-2021.pdf</p> <p>Capacity Accreditation Proposal: https://www.nyiso.com/documents/20142/24172725/20210830%20NYISO%20-%20Capacity%20Accreditation_v10%20(002).pdf</p> <p>Overview of PJM MOPR Filing: https://www.nyiso.com/documents/20142/24172725/20210830%20NYISO%20-%2020%20PJM%20MOPR.pdf</p>

Previous Discussions (cont.)

Date	Working Group	Discussion Points and Links to Materials
September 9, 2021	ICAPWG	BSM Reform Proposal with Updates: https://www.nyiso.com/documents/20142/24415247/20210901%20NYISO%20-%20Updated%20BSM%20Proposal.pdf
September 17, 2021	ICAPWG	Complete Comprehensive Mitigation Review Proposal and BSM Tariff: https://www.nyiso.com/documents/20142/24717057/20210917%20NYISO%20-%20Comprehensive%20Mitigation%20Review%20Tariff%20discussion.pdf
September 20, 2021	ICAPWG	Evaluation of Changes in the BSM Rules on Financial Risk (Potomac Economics): https://www.nyiso.com/documents/20142/24717106/MMU%20Presentation%20re%20WACC%20Adjustment_9202021.pdf/cea28c17-c373-8c1e-44ec-c5b95082a4b9
September 27, 2021	ICAPWG	ELCC Allocation Methodologies (E3): https://www.nyiso.com/documents/20142/24899187/NYISO_ELCC_210922_September_27_Presentation.pdf/30147074-ed72-467c-512e-58a792cc6c25
September 28, 2021	ICAPWG	Comprehensive Mitigation Review Proposal and Tariff: https://www.nyiso.com/documents/20142/24925244/20210928_NYISO_CMRFinal.pdf/769828a1-f224-0140-240b-0762ec18efec Market Impacts of Comprehensive Mitigation Review (Analysis Group): https://www.nyiso.com/documents/20142/24925244/2021.09.28_Stakeholder_Presentation_Draft_2021.09.27.pdf/39150426-8b99-695a-7f1d-4c839b4993f6

Previous Discussions (cont.)

Date	Working Group	Discussion Points and Links to Materials
October 18, 2021	ICAPWG	<p>Comprehensive Mitigation Review Proposal and Tariff Updates: https://www.nyiso.com/documents/20142/25440628/20211018%20NYISO%20-%20CMR%20v9.pdf/4475e775-159c-75c7-9cf8-7050dad9a363</p> <p>NYISO CMR Consumer Impact Analysis Methodology: https://www.nyiso.com/documents/20142/25440628/20211018%20CMR%20CIA%20Methodology%20v3.pdf/3658b7df-52dc-d3b7-fb52-0f1fb08dfb73</p> <p>Potomac Economics CMR Consumer Impact Analysis Methodology: https://www.nyiso.com/documents/20142/25440628/MMU%20ICAP%20Accreditation%20Consumer%20Impact%20Overview_10-18-2021.pdf/eaaf2875-e428-9cad-2fcc-a08111c1460c</p>
October 22, 2021	ICAPWG	<p>Market Impacts of Comprehensive Mitigation Review (Analysis Group): https://www.nyiso.com/documents/20142/25594796/03%20AG%20CMR%20Market%20Impacts.pdf/f99028d7-687f-9722-3348-5f4c58e129ec</p>
October 29, 2021	ICAPWG	<p>Comprehensive Mitigation Review Proposal and Tariff Updates: https://www.nyiso.com/documents/20142/25780701/20211029%20NYISO%20-%20CMR.pdf/ea8494b0-0860-b260-89b6-0c418d28a91d</p>

Previous Discussions (cont.)

Date	Working Group	Discussion Points and Links to Materials
November 2, 2021	ICAPWG	<p>NYISO CMR Consumer Impact Analysis: https://www.nyiso.com/documents/20142/25835955/CIA%20-%20Comprehensive%20Mitigation%20Review.pdf/36d447d4-5b33-8ab1-2654-90a529ff1dfe</p> <p>Potomac CMR Consumer Impact Analysis: https://www.nyiso.com/documents/20142/25835955/MMU%20ICAP%20Accreditation%20Consumer%20Impact%20Analysis%201-1-02-2021.pdf/637ba21e-db75-a4c1-5b41-f770dd26e529</p>
November 8, 2021	ICAPWG	NYISO CMR Tariff: Verbal Review
November 9, 2021	BIC	<p>NYISO CMR BIC: https://www.nyiso.com/documents/20142/25928340/5%2020211109%20NYISO%20-%20CMR%20v3.pdf/84d8b429-126c-68dd-0308-caa50886de92</p>

BSM Tariff Revisions

23.2.1 Definitions

- **“Excluded Facility” is a new defined term that reflects the Resource types that are not subject to review by the NYISO under the BSM rules or otherwise subject to an offer floor**
- **Language for the definition of “Examined Facility” has been modified to delete language related to Co-located Storage Resources and add to include any Generator or UDR that meets the definition of “Excluded Facility”**
- **The following terms have been deleted from Section 23.2.1**
 - Exempt Renewable Technology
 - Incremental Regulatory Retirement
 - Minimum Renewable Exemption Limit
 - Qualified Renewable Exemption Applicant
 - Renewable Exemption Applicant
 - Renewable Exemption Bank
 - Renewable Exemption Limit

Attachment H

- **23.4.5.7**
 - Revisions have been made to include language with respect to an Excluded Facility and delete language related to Special Case Resources that will not be subject to the Offer Floor
- **23.4.5.7.2**
 - Language has been deleted that pertains to Examined Facilities seeking to participate as a Co-located Storage Resource as well as language pertaining to the Renewable Exemption
- **23.4.5.7.3.3**
 - Replaced 'Project' with 'Examined Facility' to avoid confusion
- **23.4.5.7.3.4**
 - Language has been deleted that pertains to Examined Facilities seeking to participate as a Co-located Storage Resource

Attachment H

- **23.4.5.7.5**
 - This section addressing SCR mitigation has been deleted and replaced with the Excluded Facilities self-certification form
- **23.4.5.7.6**
 - Revisions have been made to delete language pertaining to the Renewable Exemption and Examined Facilities that are Limited Control RoR Hydro
- **23.4.5.7.7**
 - Revisions have been made to include language with respect to an Excluded Facility and delete language related to Special Case Resources that will not be subject to the Offer Floor
- **23.4.5.7.3.8**
 - Added language clarifying that the section is applicable only to a Generator or UDR project that is an Examined Facility
- **23.4.5.7.9.3.2**
 - Revisions delete reference to Renewable Exemption with respect to the concept of requests for Competitive Entry Exemptions

Attachment H

- **23.4.5.7.10**
 - Replaced ‘Project’ with ‘Examined Facility’ for clarity
- **23.4.5.7.13**
 - This section addressing the Renewable Exemption has been deleted
- **23.4.5.7.14.1**
 - Added to clarifying language “that is an Examined Facility”
 - Removed language that pertains to Co-located Storage Resources requesting a Self-Supply Exemption
- **23.4.5.7.15**
 - Replaced term “Excluded Units” with “Omitted Units” to avoid confusion

Capacity Accreditation Tariff Revisions

Capacity Accreditation Tariff Revisions

■ Section 2.3: Definitions

- Revisions have been made to incorporate the terms “Capacity Accreditation Factor” and “Capacity Accreditation Resource Class”

■ Section 5.12.6.2: UCAP Calculations

- Revisions have been made to clarify that the current construct for calculating UCAP for Intermittent Power Resources and Limited Control RoR Hydro will be utilized until the Capability Year 2024

Capacity Accreditation Tariff Revisions

- **Section 5.12.14: Energy Duration Limitations and Duration Adjustment Factors for Installed Capacity Suppliers, and Rules for Resources Subject to Capacity Accreditation Studies**
 - Section 5.12.14 and its subsections were revised to add in new language outlining the initial proposal for Capacity Accreditation
 - Revisions have been made to clarify that beginning Capability Year 2024, the Adjusted ICAP for ICAP Suppliers will use the applicable Capacity Accreditation Factor, developed in the annual Capacity Accreditation Study
 - Section 5.12.14.2: Adjusted Installed Capacity
 - Additional language has been added in relation to the timeline and process of calculating a Resource's Adjusted ICAP using the Capacity Accreditation Factors
 - Section 5.12.14.3: Periodic Review of Capacity Accreditation Factors
 - All previous language of the 4-year recurring study of capacity values has been replaced with new language related to elements of the annual re-evaluation of the Capacity Accreditation Factors for ICAP Suppliers
 - Additional language has been added to reflect the periodic review of the Peak Load Window associated with the bidding requirements for Resources with Energy Duration Limitations

Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

