

External Capacity Performance & Obligations: Deliverability & Eligibility

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July 15th, 2019

Agenda

- Project background
- Review IESO Capacity Deliverability
- Review ISO-NE Capacity Eligibility and Deliverability
- Draft ICAP Manual changes
- Update to T&D Manual changes for External SRE
- Next steps
- Appendix contents: Stakeholder Feedback Summary, Additional Project Background, Requirement Clarification Guidelines, Further detail on ISO-NE deliverability

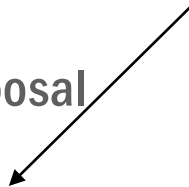
Previous Discussions

Date	Meeting	Discussion points
03-25-19	ICAPWG/MIWG	Discussed initial framework and took feedback
05-06-19	ICAPWG/MIWG	Discussed IESO and PJM deliverability and took feedback
05-22-19	ICAPWG/MIWG	Discussed ISO-NE deliverability and took feedback
06-27-19	ICAPWG/MIWG	Discussed ISO-NE eligibility & deliverability, external SRE penalty manual changes, and took feedback

Project Background

■ External Capacity Performance & Obligations

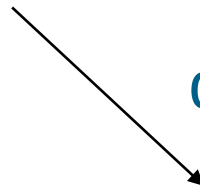
Completed proposal



External SRE Penalty Proposal

- BIC vote, April 2019
- MC vote, May 2019

Current effort



External Capacity
Deliverability & Eligibility

IESO Deliverability (presented on 05/06/19)

- **IESO currently has a procedure for evaluating whether IESO resources who wish to offer capacity into the NYISO markets are deliverable to the NY border**
 - This process is described in section 5 of Part 13.1 of its Market Manual 13: Capacity Exports*
 - IESO submits a letter to the NYISO in advance of each NYISO capability period to indicate which resources successfully passed IESO's evaluation, and are thus deemed eligible to sell capacity in the upcoming NYISO auctions
 - The NYISO plans to better document this process in the ICAP Manual

* <http://www.ieso.ca/en/Sector-Participants/Market-Operations/Market-Rules-And-Manuals-Library>

ISO-NE Capacity Eligibility

- **The NYISO proposes that resources electrically located in ISO-NE that are looking to sell capacity in NY markets must be eligible to supply capacity to ISO-NE**
 - Resources must obtain Capacity Network Resource Capability (CNRC) in ISO-NE (equivalent to CRIS)
 - Once a resource receives CNRC, it must also perform a Seasonal Claimed Capability (SCC) test (equivalent to DMNC)
 - This requirement is detailed in the draft ICAP Manual changes posted with today's meeting materials

ISO-NE Capacity Deliverability

- **The NYISO believes that leveraging ISO-NE deliverability standards is sufficient for the NYISO's satisfaction of deliverability**
 - The NYISO would like provide further detail in the ICAP Manual to clarify the Tariff requirement that capacity suppliers must demonstrate deliverability
 - For suppliers electrically located in ISO-NE, the NYISO would like to specify that those suppliers must fulfill at least one of the following options to be eligible to sell into NYISO capacity markets:
 1. Submit an Export De-List bid
 - This indicates that the resource has been determined by ISO-NE to be deliverable to the NY interface over which it intends to sell capacity
 2. There is no import or export constraint between the resource and the NYCA
 - The applicable constraints are those from the ISO-NE Forward Capacity Auctions
 - These two options are detailed in the draft ICAP Manual changes posted with today's meeting materials

Draft ICAP Manual Changes

- **Revisions are in sections 4.9.1 and 4.9.3**
 - Edits to section 4.9.1 include updates to the obligations of External Installed Capacity Suppliers
 - Edits to section 4.9.3 encompass the addition of the IESO and ISO-NE deliverability requirements
 - Since we restructured the section, the existing PJM-AC requirements appear as a redline
- **Also posted with today's meeting materials are updates to the draft T&D manual changes to provide more clarity on the external SRE selection process (corresponding to the External SRE Penalty piece of this project)**

Next Steps

- Return to working group discussion if necessary
- September BIC vote on ICAP Manual Changes
- Questions? Email acarney@nyiso.com

The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefits 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 policy makers, stakeholders and investors in the power system



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Appendix

Stakeholder Feedback Summary

- **The NYISO should seek an affirmative statement from external Control Areas that they will not curtail capacity that sold to NY**
 - The NYISO is examining this issue
- **Request for clarification on transmission service requirements for PJM UDRs**
 - The NYISO is postponing this discussion in order to advance work on rules for our other neighbors

Project Background (con't)

- In the 2017 Report, AG highlights that the deliverability of external capacity to the NYCA border has not been tested during periods when neighbors are in critical operating conditions
 - The current language in the Market Services Tariff requiring external capacity resources to demonstrate delivery is as follows:
 - MST 5.12.2.1: “External Generators, External System Resources, and Control Area System Resources qualify as Installed Capacity Suppliers if they demonstrate to the satisfaction of the NYISO that the Installed Capacity Equivalent of their Unforced Capacity is deliverable to the NYCA or, in the case of an entity using a UDR to meet a Locational Minimum Installed Capacity Requirement, to the NYCA interface associated with that UDR transmission facility and will not be recalled or curtailed by an External Control Area to satisfy its own Control Area Loads, or, in the case of Control Area System Resources, if they demonstrate that the External Control Area will afford the NYCA Load the same curtailment priority that they afford their own Control Area Native Load Customers.”

Project Background (con't)

- 2017 AG Report: *Capacity Resource Performance in the NYISO Markets*
 - The Report suggests various measures that the NYISO could evaluate further that might better align internal and external capacity resource performance
 - Today the NYISO is continuing discussions about external deliverability demonstration requirements as they relate to NY capacity market eligibility

Project Objectives

- The objective of the Deliverability & Eligibility segment of this project is to gain a better understanding of any obstacles that prevent external resources from delivering capacity-backed energy to the NYCA border
 - Specifically, this project seeks to understand:
 - Obstacles to fulfilling NYISO capacity deliverability obligations
 - What external control area rules or products exist that could moderate the obstacles to delivery
 - If revisions are necessary to the Tariff and/or ICAP Manual to enhance documentation requirements for External Capacity Suppliers in each neighboring Control Area to demonstrate deliverability
 - The NYISO strives towards comparability between internal and external capacity suppliers with regard to assurance of energy delivery

Requirement Clarification Guidelines

- The following are guiding principles, which generally characterize the NYISO’s goal to clarify, where possible, the documented requirements for capacity market eligibility
 - The NYISO seeks to ensure to the extent possible that our neighboring Control Areas will designate transactions as “capacity-backed” and will assign the associated curtailment priority
 - The NYISO believes that a good way to effectuate this goal is to require that External Installed Capacity Suppliers must be qualified to provide capacity in their home Control Area, where applicable
 - The NYISO proposes to document this requirement in the ICAP Manual, as appropriate, on a proxy-by-proxy basis
 - » The NYISO will propose updates to its Installed Capacity Manual as necessary to reflect evolving capacity eligibility requirements in neighboring Control Areas that may or may not be prudent to include in the NYISO requirements

Requirement Clarification Guidelines (con't)

- Suppliers must be able to flow energy from the generator to the NY border
- Comparability between external and internal capacity deliverability
- The NYISO expects that given the different structures in each of our neighboring markets, deliverability requirements will need to be tailored for each neighbor in order to achieve results that are as comparable as possible

ISO-NE Capacity Deliverability (con't)

- **Option 1 to demonstrate deliverability:**
 - Have an approved Export De-List bid in the ISO-NE Forward Capacity Market (FCM) for the applicable period
 - This process indicates that a resource is deliverable to the necessary NY interface, and thus elevates the level of assurance that it will be delivered to NY
 - ISO-NE resources have the opportunity to submit an Export De-List bid prior to each ISO-NE Forward Capacity Auction (annually)
 - Resources must continue to submit administrative Export De-List bids in every subsequent FCA in order to maintain the external capacity commitment
 - More information about the ISO-NE Export De-List bid process can be found at the following location:
 - <https://www.iso-ne.com/markets-operations/markets/forward-capacity-market/fcm-participation-guide/qualification-process-for-existing-generators>

ISO-NE Capacity Deliverability (con't)

- **Option 2 to demonstrate deliverability:**
 - There must not exist any constraints, which would be identified in the applicable ISO-NE capacity auction, that would limit the ability of the resource to deliver Energy to the applicable NYCA border
 - This is important because, for example, if an export-constrained zone exists between the ISO-NE resource and the NYCA border, that resource would not be able to deliver power across the necessary transmission in order to deliver to the NYCA
 - The NYISO will require verification on a monthly basis that ISO-NE resources who wish to sell into NYISO capacity auctions do not violate this requirement
 - The relevant constraints will be those determined in the applicable ISO-NE Forward Capacity Auction (FCA) for the applicable NYISO delivery month
 - Constraints modeled in the ISO-NE auctions are static for the entire capacity commitment period (June-May)
 - ISO-NE FCA Results can be found at : <https://www.iso-ne.com/about/key-stats/markets#fcaresults>

ISO-NE Example 1: Export De-List Bid

- **Scenario: An ISO-NE resource obtains an Export De-List bid in the ISONE market for an upcoming capacity commitment period (equivalent to capability year)**
 - The Export De-List bid indicates that the ISONE resource is deliverable to the applicable NY interface for that period
 - This resource would be considered eligible by the NYISO to sell into NYISO capacity auctions

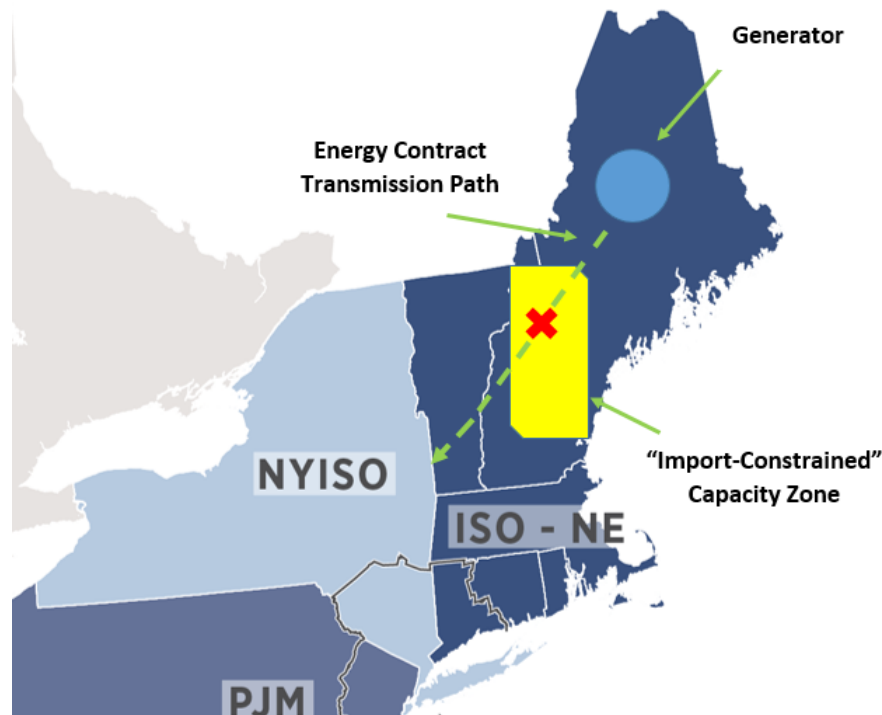
ISO-NE Example 2: No Import or Export Constraint

- **Scenario: A resource in NE ROS Pool does not obtain an Export-De List bid, but is seeking to sell capacity to NY**
 - No capacity market import or export constraints exist between the resource and the interface over which it is intending to sell capacity to the NYISO
 - This resource would be considered eligible by the NYISO to sell into NYISO capacity auctions

ISO-NE Example 3: Import Constraint

- **Scenario:** A resource is located in an ISO-NE capacity zone, it does not submit an Export-De List bid, and it is seeking to sell to NY
 - A capacity market import constraint exists between the electrical location of the resource and the interface over which it is intending to sell capacity to the NYISO
 - This constraint presents an obstacle to delivery to the NYCA
 - This resource would not be considered eligible by the NYISO to sell into NYISO capacity auctions
 - Diagram on the following slide

ISO-NE Import Constrained Capacity Zone



- Since the yellow ISO-NE capacity zone was identified in the ISO-NE Auction as “Import-Constrained”, this means ISO-NE transmission is not be able to accommodate the generator delivering to the NY border
 - Therefore, in the absence of an Export De-List bid, the generator would not be eligible to sell capacity in NYISO auctions