



Locational Export Capacity Proposal

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ICAP Working Group
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NYISO

Agenda

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- ◆ **Timeline**
- ◆ **NYISO Proposal**
- ◆ **Locality Exchange Factor**
- ◆ **Obligations**
- ◆ **NYSRC 2017-2018**
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- ◆ **Next Steps**

Overview

- ◆ **The concern raised in Potomac Economics' SOM (May 2016)**
 - *SOM recommended that the NYISO address the treatment of capacity exports from import constrained localities before 2018/2019*
- ◆ **A proposed ISO-NE rule change would allow a resource already qualified in a subsequent auction to participate in the 2017/2018**
 - *Therefore, the potential concern was escalated because a Generator in an import constrained Locality could qualify for 2017/2018, a year earlier than previously known*
- ◆ **August 2nd ICAPWG**
 - *NYISO described the above concern and notified stakeholders that it would pursue an aggressive schedule to file market design changes that would enable a fix to be in place in time for the 2017/2018 Capability Year*

Overview

◆ August 23rd ICAPWG

- *NYISO presented its market design proposal to address Locality exports*
- *It identified ISO-NE's filing and described it was planning to file comments*

◆ September 19th ICAPWG

- *NYISO presented material and draft tariff revisions on the topics of: Locality Exchange Factor, capacity export processes, obligations for Locality exports, and mitigation*
- *NYISO described the limited protest it filed in the ISO-NE Section 205 docket*
- *NYISO presented its consumer impact analysis*

NYISO Proposal

- ◆ **The NYISO's proposal is designed to address market inefficiency by accurately reflecting in the ICAP market the continued operation of a resource that exports capacity from an import constrained Locality**
 - *Reflect the portion of locational export capacity that must be replaced in the Locality and the portion that can be replaced in ROS while maintaining the same level of reliability*
 - The term “Locality Exchange Factor” or “Locality Exchange MW” refers to the portion that can be replaced in ROS
 - *Decrement the Locality ICAP requirement by the Locality Exchange MW*
 - *Only applicable to exports over AC interfaces*

NYISO Proposal

- ◆ The Locality's ICAP market requirement will be reduced so that the market does not procure more than necessary to maintain the same level of reliability
- ◆ The formula below calculates the adjusted Locality ICAP market requirement

$$ICAP Req_{Adj} = (LCR * FPL) - ICAP_{LEC}$$

Where:

ICAP Req_{Adj} = The ICAP Requirement adjusted for Locational Export Capacity

LCR = The Locational Capacity Requirement of the Locality

FPL = The seasonal Forecast Peak Load of the Locality

ICAP_{LEC} = Locational Export Capacity determined to be exchangeable with ROS

Locality Exchange Factor Analysis

- ◆ **LE Factors for each Locality will be determined annually**
- ◆ **NYISO will post on its website the LE Factors for each of the Localities in relation to External Control Areas**
 - ***Localities to be included: (G-J, J)***
 - This proposal will not apply to Zone K
 - ***External CAs to be included***
 - ISO-NE, PJM, HQ, and IESO

Locality Exchange Factor Analysis

◆ Example: Determining the LE Factor

- *Conduct a power flow analysis at peak load conditions to determine the amount of ROS generation that can be brought into the Locality given the constraint relief provided by the export*
- *Power flow analysis used to determine the shift factor on the SENY interface in this example*
 - **SENY interface defined as only the internal NY transmission component of the UPNY-SENY interface**
 - **The shift factor for a transfer of GHI generation to ISO-NE load is 0.438 ***
 - **The shift factor for a transfer of A-F (ROS) generation to GHI load is 0.916***
- *The LE Factor between G-J and ROS will be determined by the ratio of the shift factors on the SENY interface for the transfer from GHI to ISO-NE over the transfer from ROS to GHI*
 - **0.438 / 0.916**
- *The LE Factor between G-J and ROS for a G-J export to ISO-NE is then 47.8% using the formula:*
 - **LE Factor = $\frac{\text{Locality gen to external control area load shift factor}}{\text{ROS gen to Locality load shift factor}}$**

* Values based on analysis performed to date.

NYISO Proposal

- ◆ **Given the proposal, the Locality Exchange Factor would have the following market impact:**
 - *The LE Factor is 47.8%, which means a price signal to replace 52.2% of a G-J export to ISO-NE in the G-J Locality is efficient*
 - *As such, the Locality ICAP requirement will be decremented by the LE Factor of the ICAP export, or 47.8% in this case*
 - The remaining 52.2% of the ICAP export will directly impact the G-J clearing price as a loss of supply
 - *The replaceable portion of the export (47.8% of the MW) does not create any additional reliability need in the Locality and therefore a price signal to replace that portion in the Locality would be inefficient*
 - **Market Impacts:**
 - G-J market clearing price will rise by 52.2% of the ICAP export
 - NYCA market clearing price will rise by 100% of the ICAP export

Timeline

- ◆ **For ISO-NE's June 2017 Auction Month**
 - ***ARA 3 for 2017-2018 Capability Period***
 - Opens March 1st, closes March 3rd, results posted March 17th
 - ***Monthly Bilateral Period***
 - Opens April 11th, closes April 12th, results posted April 19th
 - ***Monthly Auction***
 - Opens April 20th, closes April 21st, results posted April 28th
- ◆ **NYISO will post the Locality Exchange Factors by January 30; i.e., the same timeframe as the NYSRC files the IRM and the NYISO establishes the LCR values**

Timeline

January	March	April	May
<p>The IRM is filed and LCRs are established</p> <p>By January 30 the Locality Exchange Factors will be determined and posted</p>	<ul style="list-style-type: none"> •NYISO runs the strip auction for the upcoming Capability Year. •ISO-NE opens the offer period and posts the results of ARA 3 for its upcoming capability year. 	<ul style="list-style-type: none"> •NYISO runs the first monthly and spot auctions for May, the first month of the upcoming capability year. •ISO-NE runs bilateral and monthly auctions for June, the first month of its upcoming capability year. •Locality exports provide NYISO with external obligation(s) for June 	<ul style="list-style-type: none"> •NYISO runs the monthly and spot auctions for June. The spot auction will run using a UCAP value based on an adjusted ICAP requirement in applicable Localities in which there is locational export capacity

Locality Export Obligations

- ◆ **The following obligations apply to all exports, including from all Localities**
- ◆ **The NYISO requires that a Locality resource exporting ICAP to an External Control Area submit an MIS Transaction ID**
- ◆ **Neighboring Control Areas request valid data for such resources from the NYISO including, but not limited to**
 - *DMNC, GADS data, MIS Transaction ID*
- ◆ **Provided with the above data for a Locality export transaction, ICAP Market Operations will flag the transaction as capacity backed in the MIS**
 - *If the exporting resource does not provide the necessary data, the NYISO can cut the transaction*
- ◆ **Locality exports will submit the necessary data above in accordance with the ICAP Event Calendar**
 - *Locational export capacity is required to submit their external obligation on or before the first business day of the month prior to the capacity export*

Locality Export Obligations

- ◆ Provide notice to the NYISO approximately one month before the certification period, identifying the ICAP MW to be exported
- ◆ Respond to an SRE
 - *Entitled to Bid Production Costs including valid lost opportunity costs*
- ◆ Comply with existing obligations under the NYISO's Tariffs and Manuals

Export Obligations

- ◆ In their CTS filing, ISO-NE noted changes to the ISO-NE Forward Capacity Market rules
- ◆ Section VI.F of the “ISO New England Inc. and New England Power Pool, Market Rule 1 Revisions Relating to Coordinated Transaction Scheduling” FERC Docket No. ER12-000 states:
 - *“a New England Import Capacity Resource associated with a supply resource (e.g., a generator) physically located in New York will be obligated to offer the resource and participate in the NYISO day-ahead and real-time energy markets, consistent with the obligations of a New York capacity resource.”*
- ◆ ISO-NE Transmission, Markets, and Services Tariff Section III.13.6.1.2.3.b
 - *“Where the Import Capacity Resource is physically located in a Control Area with which the New England Control Area has implemented the enhanced scheduling procedures in Section III.1.10.7.A, the resource must comply with all offer, outage scheduling and operating requirements applicable to capacity resources in the native Control Area.”*

NYSRC

- ◆ **2017/2018 Capability Year, the NYISO's understanding based on meetings with the NYSRC Installed Capacity Subcommittee is that the NYSRC current view is**
 - ***Forward auction sales to ISO-NE for the 2017/2018 Capacity Year will not be modeled in the 2017 IRM base case***
 - The IRM will still model long-term contracts to ISO-NE
 - ***ICS will conduct a sensitivity to begin understanding the impacts of a locality capacity export on the IRM and LCRs***
 - The methodology was discussed at the ICS meeting on 10/5

NYSRC ICS – Sensitivity for 2017/2018 Study

Transmission System Representation for Year 2017 - Summer Emergency Ratings (MW)

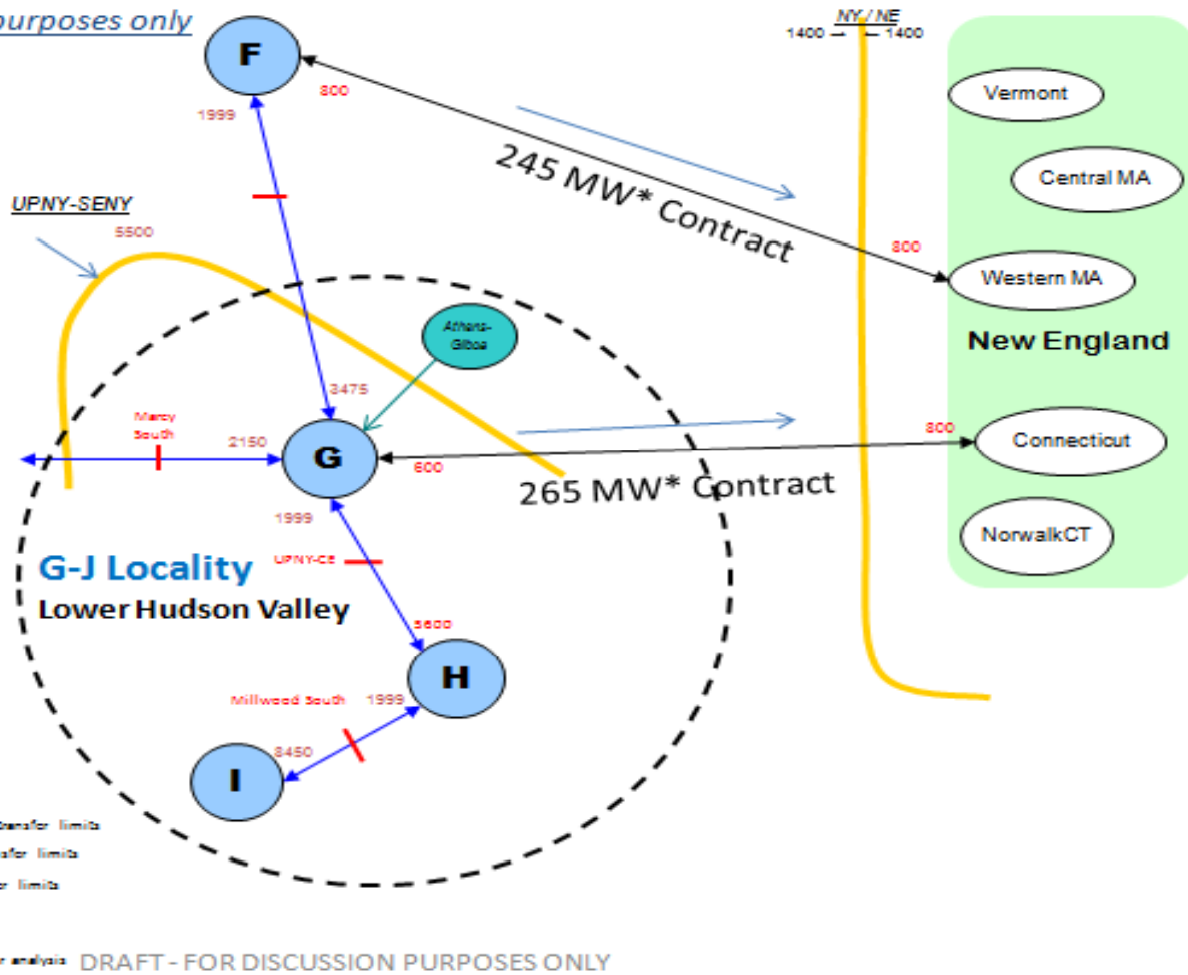
2017 IRM Study, Sensitivity #10 - 9/26/16

For 2017 IRM Sensitivity discussion purposes only

Since only 265 MW of the Roseton sale is non-fungible, it gets modeled as a contract* from zone G to Connecticut. The fungible amount comes from upstate and is accounted for by a 245 MW contract* from zone F to Western Mass.

The contracts are model as affecting the interface in both directions. This means that if NE does not need the capacity, it can return in addition to the 800 MW capability from WMA and 600 MW capability from Connecticut.

*For modeling purposes, the values of this contracts are reduced based on the EFORD of the supplying unit. Operationally, there is no obligation to provide capacity when the supplying unit is unavailable.



Tariff Revisions

- ◆ **Minor revisions since the last ICAPWG**
 - ***Market Services Tariff***
 - **Section 2.1 Definitions**
 - Import Constrained Locality
 - Locality Exchange MW
 - Locality Exchange Factor
 - Locational Export Capacity
 - **Section 5.9.2 Provisions applicable to Locational Export Capacity**
 - **Section 5.11.4**
 - ***Attachment H***
 - **Section 23.2**
 - **Section 23.4.5**

Next Steps

- ◆ **October 18th**
 - *Expected (60 day) timing of FERC Order on ISO-NE 205*
- ◆ **October 20th - BIC**
 - *Vote on proposal if needed*
- ◆ **October 26th - MC**
 - *If BIC vote, vote on proposal*
- ◆ **November 2nd - ICS**

Next Steps Continued

- ◆ **November 14/15th - Board Approval**
- ◆ **November 16th**
 - *NYISO 205 filing with FERC*
- ◆ **January 16th**
 - *FERC ruling on NYISO 205 filing*
- ◆ **February 2017**
 - *Software implementation ahead of 2017/2018 Strip Auction*

The mission of the New York Independent System Operator, in collaboration with its 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 policy makers, stakeholders and investors in the power system*

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