



BSM Forecast Enhancements – NYISO Concept Proposal

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Agenda

- **Background & Overview**
- **NYISO's Concept Proposal**
- **Tariff Language**
- **Next Steps**

Background and Objective

- In the docket to create the G-J locality, the Market Monitoring Unit and several other parties sought tariff revisions to address how mothballed units were treated in the capacity and energy forecast used to buyer-side mitigation determinations
- FERC determined that such an enhancement was outside the scope of the docket but it encouraged the NYISO to work with stakeholders on the issue
- The NYISO developed this proposal with input from stakeholders at the following ICAP Working Group meetings:
 - *The proposed concept was presented and input was received on December 12, 2014, March 18, 2015, May 18, 2016, July 6, 2016, August 10, 2016, September 7, 2016, and October 27th, 2016*
 - *Draft tariff language was presented at the October 27 meeting*
- Today's presentation
 - *Proposal overview*
 - *Tariff language*
- Next steps

Proposal

- **To be included in the forecast:**
 - ***Currently operating units (i.e., Gold Book):***
 - Including Forced Outage and Inactive Reserve unless there is publicly available information, definitively indicating that a unit will permanently cease operation
 - ***Units with “positive indicators” of repair and return to service:***
 - This Includes: 1) ICAP Ineligible Forced Outage (IIFO) including Catastrophic Failure units; 2) Mothball Outage (MO); and 3) units which have submitted a Generator Deactivation Notice and Partial long-term de-rates
- **Do not include in forecast:**
 - ***Retired***
 - ***Relinquishing/Transferring of CRIS***
 - ***Other publicly available information demonstrating that a unit will cease operation***
- **The following units/unit types would be included in the forecast, if “Inclusion Test” is passed:**
 - ***Units without “positive indicators” of repair and return to service:***
 - Any of the existing and noticed (as applicable) IIFO, MO, and units which have submitted a Generator Deactivation Notice
 - ***RMR with an expiration date before or during Mitigation Study Period***

Inclusion Test

- For each unit, that requires “*significant*” capital investment(s) and/or a long lead time to return:
 - *The analysis is based on the net present value (“NPV”) under forecasted market conditions and is performed for the period from the reasonably anticipated commencement date of the CY Initial Decision Period, through the end of the assumed investment horizon*
 - The analysis will consider the projected unit-specific “return to service costs” (including but not limited to CapEx, mobilization costs, RMR “claw-back” payments, and any relevant lost opportunity costs based on publicly available and verifiable information)
 - Estimated value of net revenues associated with the production and sale of Energy, Ancillary Services, and capacity, including expected lost revenue on the rest of the unit owner’s portfolio due to reduction in ICAP prices
 - *If the NPV is positive, the unit is modeled as “in-service” in the forecasts for the purpose of the BSM evaluation*
 - *Otherwise, the unit is excluded from the forecasts for the purpose of the BSM evaluation*

Inclusion Test cont'd

- Each unit not *requiring significant capital expenditures and/or a long lead time to return*, or if costs cannot be timely verified:
 - *Include in the forecasts for the purpose of the BSM evaluation at (seasonally shaped) “in-service price” which is based on*
 - “Return to service price”
 - *Projected unit-specific “return to service costs”*
 - Including needed expenses such as mobilization/testing, avoidable costs, and costs associated with RMR contract (aka “claw-back” payments (anti-toggling cost provision))
 - Any other additional relevant lost opportunity based on publicly available and verifiable information
 - *Net of estimated value of net revenues associated with the production and sale of Energy and Ancillary Services*
 - Including Portfolio Effect** (“portfolio hurdle price”) that is expected lost revenue on the rest of the unit owner’s portfolio due to reduction in ICAP prices for the unit’s return
 - *If the “Return to Service Price” is not available, the NYISO shall use either the*
 - “Departure price”
 - *Market revenues at the time the unit had exited or signaled its intent to exit (which were not enough to support continued operation); or,*
 - “Forgone price”
 - *Market revenues that the unit could have been earned if it stayed in the market (which were not enough to trigger its return)*

“Significant” capital investment(s) and “long lead time to return”

- If it is reasonably determined that capital investment(s) to be recovered through net revenues from sales of Energy, Ancillary Services and Capacity will require a time period greater than 1 year, then it will be considered a “significant capital investment”
 - *Based on economic theory and investment principles*
- A unit with estimated repair time requiring 180 days or longer will be deemed a unit with a “long lead time to return”
 - *Consistent with outage state rules*

Positive Net Present Value

- **Net Present Value (NPV):**
 - *Is a present value of cash in-flows (revenues) and out-flows (costs)*
 - *It is used to evaluate whether a project is likely to make a positive return and, therefore, used as a screening tool*
 - *Combined with the “required” hurdle rate^{***}, it is a reasonable selection tool*
- **NYISO propose to model units as “in-service” in the forecasts for the purpose of the BSM evaluation, if the calculated NPV is positive**

**** to satisfy investors' expected gain*

Revisions to the Draft Language Since the October 2016 ICAPWG Meeting

- A correction was made to Section 23.4.5.7.5 to insert the word “before” to capture the concept of Generators with RMR Agreements that terminate before or during the MSP
- The parenthetical reference to the RMR anti-toggling sections in Sections 23.4.5.7.15.5.1 and 23.4.5.7.15.5.2 was revised. It now generally references that the costs associated with an RMR Agreement include capital expenditures and above market revenues.
 - *The actual reference is the concept in proposed Section 15.8.7 of Rate Schedule 8, most of which is pending before the Commission as part of the NYISO’s supplemental RMR compliance filing.*

Tariff Language to be Developed

- **Tariff language to incorporate a concept for UDRs, similar to the concept proposed for generators in/out of the forecast, will be developed. Placeholders for this incremental language are in Sections 23.4.5.7.15.1 and 23.4.5.7.15.3**
 - *These incremental draft tariff revisions will be presented at a future working group meeting in early 2017*

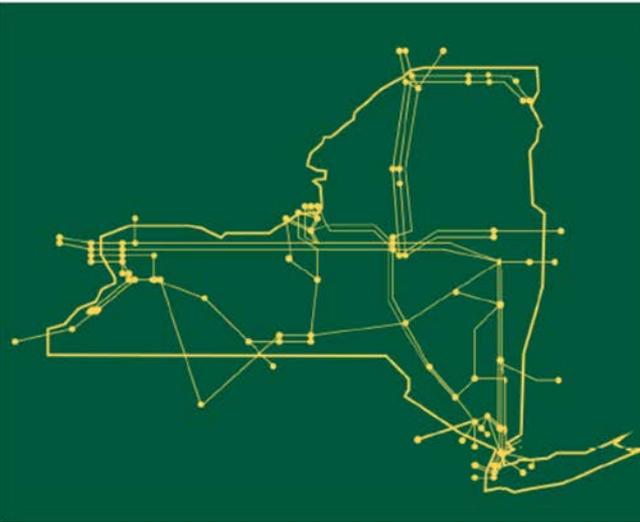
Proposal: Tariff Language & Resource Impact

- **Proposal :**
 - *Requires Tariff changes but not software changes*
 - *Most of the necessary Tariff revisions are found in MST Section 23.4.5*

Next Steps

- ***Present incremental Tariff revisions to address UDRs in the forecast for stakeholder feedback at a future working group meeting in early 2017***
- ***Return to the BIC to present the proposal and fully developed tariff language***

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