

Enhancements to the ICAP and Energy Forecasts in the Buyer-side Mitigation Rules



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Objectives

- ◆ **Continue discussion on developing rules to enhance BSM forecasts:**
 - *Under the current rules, units that have exited the markets for various reasons and that might not re-enter service are modeled as “in-service.”*
 - Assumptions on in-service MW are important for revenue forecasts
- ◆ **Address Stakeholders’ Suggestions**
 - *Forecasts performed by independent 3rd party*
 - *Adjustments to BSM assumptions on LCR*

Current Rule

- ◆ **Mothballed (“MO”) and ICAP Ineligible Forced Outage (“IIFO”) Units***
 - ***“Expected Retirements”** are the only units excluded from the BSM forecasts.***
 - ***All Mothballed & ICAP Ineligible Forced Out Units are included in BSM forecasts.***

** The terms Mothballed and IIFO are part of a tariff proposal pending before FERC. As used herein, these phrases are used to indicate units that have the same characteristics of units that meet those general definitions.*

***Attachment H definition of “Expected Retirements” (Sec. 23.4.5.7) includes only units that have provided a written retirement notice to the PSC.*

Proposed Framework

◆ Core Principles:

- *Sound economic principles*
- *Market rule transparency*
- *Predictability for stakeholders*
- *Enables timely application*
- *Consistency with related NYISO processes*

◆ Modify and clarify existing rule

- *Change current rule for evaluating whether and when MO & IIFO units should be included in BSM Forecasts*

ICAP Ineligible and Mothballed Units

Potential Design Concepts considered (1)

- ◆ **Historical Average MW aggregated by Locality**
 - *Backward-looking approach*
 - *Inflexible*
 - *Potential over/under estimation*

- ◆ **Predefined Class-average Going Forward Costs**
 - *Some technologies might appear to be less profitable*
 - *Tracking individual units to aggregate them into classes*
 - *Controversy from defining “class-average” unit (i.e., age, geography, markets, fuel diversity)*
 - *A reasonable computation suitable for the purpose may not be readily available*

Potential Design Concepts considered (2)

- ◆ **Unit Specific Going Forward Costs**
 - *Confidentiality concerns*
 - *No transparency to the market place*
 - *A reasonable computation suitable for the purpose may not be readily available*

- ◆ **ICAP Eligibility Category**
 - *Situational*
 - *Inflexible*
 - *Potential over/under estimation*

- ◆ **Methodology based on Market signals, e.g., ICAP Market-Clearing Prices**
 - *Transparent to market place*
 - *Straightforward implementation and replicability*
 - *Supported by economic theory*
 - *No issues with disclosure of confidential information*

Proposed Rule

- ◆ **Include in the Capacity and Energy Forecasts if:**
 - *Forced Outage*
 - *ICAP Ineligible Forced Outage (if there are positive indications of repairs *)*
 - *Partial long-term derate (if there are positive indications of repair and intent to return **)*
 - *Noticed Intent to Return from Mothball (if there are positive indications that the unit will be returning***)*

- ◆ **Do not Include in the Capacity and Energy Forecasts if:**
 - *Retired*
 - *Relinquishing/Transferring CRIS*

* Positive indications that a unit will be returning to service include: A) indications of repair evidenced by items such as: 1) A repair plan including schedule, 2) A list of permits required with indications of active status, 3) Invoices for material, 4) Contracts for construction; or B) indications of restart including such items as: 1) Visible site activity, 2) labor arrangements, 2) fuel supply arrangements, 3) unit testing.

** See above

*** *i.e.*, DNMC test

Proposed Rule cont'd

- ◆ **Include in the Capacity Forecasts at “price level”:**
 - *ICAP Ineligible Forced Outage (unless there are positive indications of repair *)*
 - *Mothball Outage*
 - *Noticed Intent to Return from Mothball (until status changed)*
 - *Noticed Intent to Mothball or Retire (until status changed)*

** Positive indications that a unit will be returning to service include: A) indications of repair evidenced by items such as: 1) A repair plan including schedule, 2) A list of permits required with indications of active status, 3) Invoices for material, 4) Contracts for construction; or B) indications of restart including such items as: 1) Visible site activity, 2) labor arrangements, 2) fuel supply arrangements, 3) unit testing.*

Forecast Price Level

- ◆ “Price Level” reflects:
 - *ICAP Spot Auction Market-Clearing Prices (by Locality)*
 - Average ICAP Spot Market-Clearing Price of the last two Capability Periods in which a unit offered into the Spot
 - Average ICAP Spot Market-Clearing Prices of the immediately preceding completed Capability Period and the Capability Period at the time of the BSM evaluation.
 - *Incentive to withhold*
 - Portfolio test (by Locality)
 - Optimal price level at which MO or IIFO MW maximize revenue of a portfolio
 - *Effect on Market-Clearing Prices (by Locality)*
 - Once a unit returns, all other things being equal, MCP will be lower
 - *Risk adder*

Example: Price Level Calculation

- ◆ **Class Year 2015**
 - *Mitigation Study Period May 2018 through April 2021*
 - *For the purpose of this example, BSM determination issued March 2016*
- ◆ **Assume the Demand Curve slope is \$1.1/kW-Mon per 100 MW**
- ◆ **Assume 150 MW of a mothballed unit in New York City**
 - *\$1.65 + 10% = \$1.82 = adder need to counter effect of absence of mothballed MW, for instance 10%*
- ◆ **Assume 1,300 MW of Gold Book based portfolio (by ICAP Supplier)**
 - *Portfolio Hurdle Rate = \$14.3*
- ◆ **Assume, the unit went to mothball outage status Summer 2014**
 - *\$14.12 → average ICAP Spot Market-Clearing Price for Winter 13/14 and Summer 14*
- ◆ **Assume Average of the ICAP Spot MCP for May 2015 through April 2016**
 - *\$15*
- ◆ **Price Level = $\max\{\$14.12, \$15+\$1.82, \$14.3\} = \$16.82$**

Responses to Stakeholder Suggestions during previous ICAPWG presentation

- ◆ **NYISO received feedback at the December 12, 2014 presentation**
- ◆ **The following two slides are for further discussion**
- ◆ **The NYISO is committed to developing a process to facilitate the discussion of proposed enhancements to the assumptions and methods used in the BSM determinations**
 - *This process will be discussed at upcoming meetings*

ICAP Forecast performed by 3rd party

◆ Pros:

- *It has been suggested this may be more representative of a competitive supplier outlook*

◆ Cons:

- *Increased level of uncertainty due to unknown assumptions*
- *All assumptions might not be transparent*
- *No indication that assumptions would be more appropriate than those used in an stakeholder-developed rule*
- *3rd party forecasters often represent Market Participants and developers, and thus may have conflicts of interest*
- *Additional costs to the NYISO*

Adjusted LCR vs. Currently approved LCR

◆ Pros:

- *May capture impact of Class Year projects*
- *Potential alignment with NYISO planning assumptions for MSP and with Load Forecast assumptions*

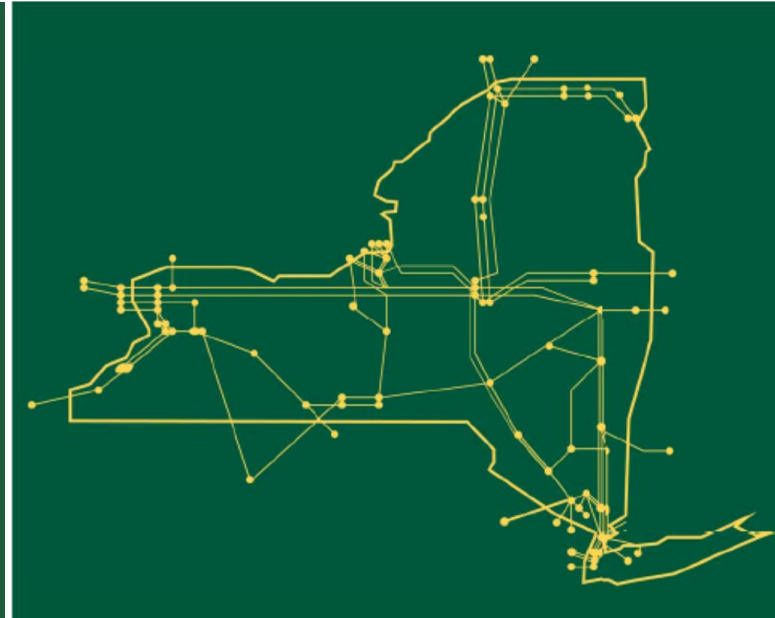
◆ Cons:

- *LCR model has short-term outlook compared to the ICAP forecast for the purpose of the BSM determinations*
- *Complexity added to the process*
- *Would be cumbersome because LCR would need to be revised as projects drop out of the Class Year before its completion*
- *Additional time and resources*
- *Simplified assumptions may introduce additional inaccuracy and bias*

Next Steps

- ◆ The NYISO will consider input received during today's ICAPWG meeting
- ◆ Stakeholders can also provide additional comments in writing to deckels@nyiso.com
- ◆ Further review of the proposal at a future ICAPWG meeting

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