

Forecast Enhancements in the Buyer-side Mitigation Rules

Julia Popova, PhD ICAP Market Mitigation & Analysis Department

ICAPWG

May 18, 2016

Rensselaer, NY

Agenda

- Background and overview
 - Current Rule
 - Impact
- Proposed Framework
- Proposed Rule
- Design Concepts
- Next steps

Background and Overview

- Stakeholder meetings:
 - · December 12, 2014 and March 18, 2015
- The purpose of this presentation is:
 - Continue discussion on developing rules to enhance and make more transparent forecasts used in the Buyer-Side Mitigation (BSM) determinations:
 - Under the current rules, units that have exited the market for various reasons and that might not re-enter service are modeled as "in-service."

Background and Overview (2)

- Prior Guidance
 - FERC NCZ mitigation rule Order*
 - "[W]e encourage NYISO, in consultation with its stakeholders, to consider modifying the Services Tariff to include criteria, applicable to all load zones, that can be used to determine if mothballed units should be included in Expected Retirements."
 - Market Monitoring Unit
 - Several previous State of the Market Reports & BSM reports propose the NYISO address the issue regarding Mothballed and ICAP Ineligible Forced Outage ("IIFO") units

^{*} New York Independent Sys Operator, Inc., 143 FERC ¶ 61,217 at P 111 (2013) at P 111

Background and Overview (3)

- BSM test is performed for all Examined Facilities and NCZ Examined Projects* in Mitigated Capacity Zones
 - The chief purpose of BSM is to protect markets from artificially suppressed capacity prices by uneconomic entry
 - There are two separate tests, the "Part A Test" and the "Part B Test"
 - Both tests account for forecasted revenues from energy and capacity markets

*NCZ Examined Project rules are transition rules that only apply to when a new Locality is first accepted.

Background and Overview (4)

- Under the current rule units that have exited the market for various reasons and that might not re-enter service are modeled as "in-service."
 - "Expected Retirements" are the only units excluded from the BSM forecasts.
 - "Expected Retirements" are defined as units that have provided a written notice of retirement to the PSC (Sec. 23.4.5.7)
 - All Generators that are in a "Mothballed Outage" and mothballed (i.e., before or after "Outage States" rules) or on an ICAP Ineligible Forced Outage are included in the BSM forecasts
- Including units that are expected to not be in-service could:
 - over-estimate the amount of capacity
 - understate the forecasted prices
 - lead to over-mitigation
- Excluding units that are expected to be in-service could:
 - have the opposite effect

Proposed Framework

- Core Principles:
 - Sound economic principles
 - Market rule transparency
 - Predictability for stakeholders
 - Enable timely application
 - Consistency with related NYISO rules

Proposed Rule

- Include* in the BSM Forecasts if there are positive indications that resources in the following outage status will be returning to service
 - Forced Outage
 - ICAP Ineligible Forced Outage
 - Partial long-term derate
 - Noticed Intent to Return from a Mothball Outage
- Do not Include* in the BSM Forecasts if:
 - Retired
 - Relinquishing/Transferring CRIS
 - Catastrophic Failure unless there are positive indications of repairs

^{*} A proposed rule addressing UDRs is being developed

Proposed Rule (2)

- Positive indications that a unit will be returning to service include
 - (A) indications of repair evidenced by items such as:
 - A repair plan including schedule (e.g., "Credible Repair Plan")
 - · Steps that it has Commenced Repair
 - Or (B) indications of return-to-service including such items as:
 - visible site activity
 - · labor arrangements
 - fuel supply arrangements
 - unit testing

Proposed Rule (3)

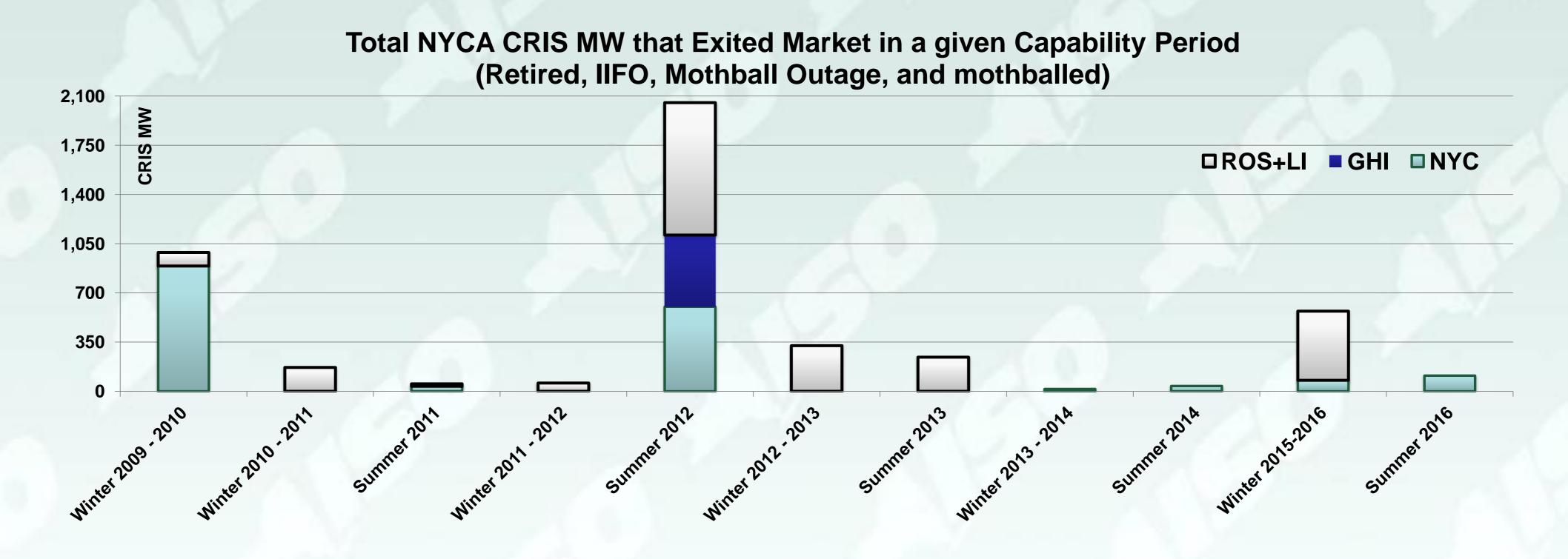
- Perform "inclusion test" for capacity resources that are
 - ICAP Ineligible Forced Outage
 - Mothball Outage
 - Notice of Intent to Return from Mothball
 - Notice of lintent to mothball
 - Notice of lintent to retire
 - · until status changed
 - RMR with expiration date before or during Mitigation Study Period

Inclusion Test

- Performed for resources that have ability to re-enter the market, or remain in the market, under "favorable conditions"
- To evaluate whether a resource might re-enter, or not exit (as applicable) and remain in the market, in a given time period (spans from the beginning of CY to the end of Mitigation Study Period)
 - At the time of the BSM determination the NYISO will determine solely for purposes of the BSM determination whether the resources examined in the inclusion test would be in or out of the market
 - If forecasted market signals are strong enough for a resource to return, such resource would be included in the BSM forecasts

Potential Design Concepts (1)

- Historic Trend
 - Backward-looking approach
 - Inflexible
 - Behavior in the past not necessarily representative of future



Potential Design Concepts (2)

- ICAP Eligibility Category
 - Situational
 - Inflexible
 - Potential over/under estimation
 - There are units that return to the markets

Potential Design Concepts (3)

- Publicly Available "class average" Going Forward Costs
 - Establish hypothetical going forward costs for existing units that have noticed they are exiting the market or are IIFO, etc.
 - Aggregating individual units into classes based on parameters like age, geography, markets, fuel diversity may be imprecise
 - Not always a robust data base for the "class-average"
 - Some technologies might appear to be less profitable
 - A computation suitable for this purpose might not be feasible

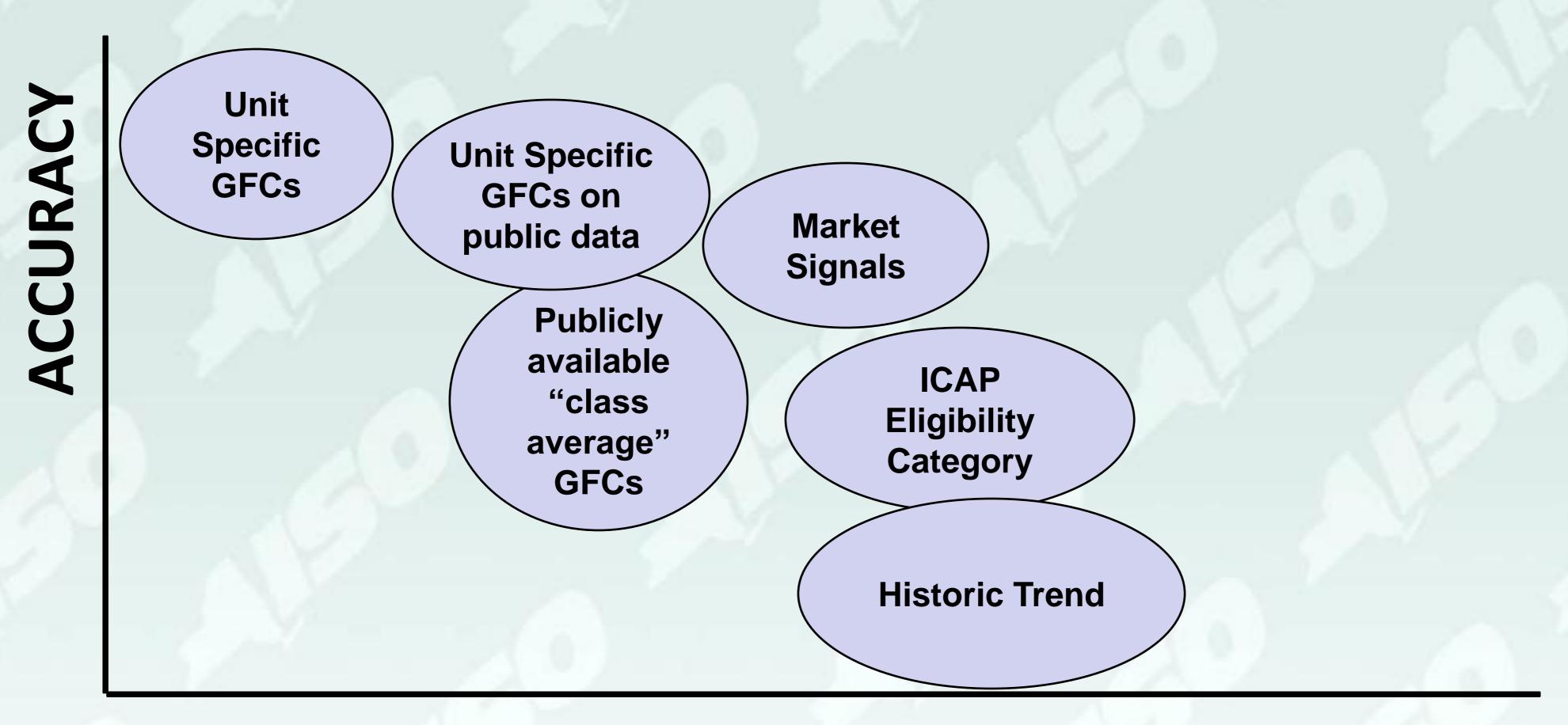
Potential Design Concepts (4)

- Unit Specific Going Forward Costs
 - Actual unit data
 - Confidentiality concerns with the use of actual unit data
 - May not have been developed for the period in question
 - No transparency to the market place
 - Generally not replicable by 3rd parties
 - Publicly available data
 - Might be inaccurate if calculated based on publicly available data
 - Labor intensive for NYISO

Potential Design Concepts (5)

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

Potential Design Concepts (6)



TRANSPARENCY

Next Steps

- The NYISO will consider input received during today's ICAPWG meeting
- Stakeholders can also provide additional comments in writing to <u>deckels@nyiso.com</u> or to <u>ipopova@nyiso.com</u> by May 31, 2016
- Further review of the proposal at a future ICAPWG meeting

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

www.nyiso.com