

Performance Assurance

**Management Response to Analysis Group's Capacity Resource
Performance in NYISO Markets: An Assessment of Wholesale Market Options**

Ethan D. Avallone

Senior Market Design Specialist, Energy Market Design

ICAPWG/TPAS

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Agenda

- **Background**
- **Management Response**
 - **Operating Reserves**
 - **External Resource Performance & Eligibility**
 - **Tailored Availability Mechanism**
- **Next Steps**

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Background

Background

- **AG suggested a number of recommendations that may prove promising to the NYISO and its stakeholders in the future.**
 - The NYISO management team appreciates the efforts of Analysis Group to consider the spectrum of opportunities to improve resource performance, particularly during critical operating conditions.
 - We also appreciate the valuable feedback provided by stakeholders and by the Market Monitoring Unit on their perspectives and priorities.

Background

- **In the near term, pursuing market enhancements to the performance and eligibility of external resources, operating reserve market improvements, and a tailored availability mechanism hold the most promise.**
 - The NYISO management team looks forward to collaborating with stakeholders on these recommendations, and informed by the Performance Assurance Report.
 - In addition to these recommendations, the NYISO management team anticipates discussing recommendations from AG relevant to fuel security in the future, given the Federal Energy Regulatory Commission's recent order on grid resilience.

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Operating Reserves

Operating Reserve Market Enhancements

“... rule changes that specifically increase revenues of generating units that perform well during shortage or scarcity conditions are likely the most direct means of incentivizing performance under stressed system conditions.”

-Analysis Group, *Capacity Resource*

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- Operating reserve market enhancements could include:
 - Evaluating current reserve locations
 - Procuring additional reserves beyond reliability requirements.

Resiliency

- **Enhancements to the construction of the current operating reserve shortage pricing should be discussed with stakeholders to explore the benefits of procuring additional operating reserves to incent resource performance and promote grid resiliency.**
 - Specifically, by using a concept akin to the capacity market approach of procuring excess capacity through the Installed Capacity demand curves.
 - The NYISO could similarly procure additional operating reserves above minimum requirements when cost effective.
 - These reserve schedules would enhance resiliency by recognizing the value of resource availability to be responsive to unanticipated real-time operating needs.
 - The additional financial incentives would encourage procurement of the necessary fuel obligations and incent resource performance and maintenance scheduling.

Reliability

- **The NYISO should consider securing 10 minute reserve requirements in the market consistent with New York State Reliability Council (NYSRC) reliability rules**
 - “[s]ufficient ten (10) minute operating reserves shall be maintained in the NYC zone” – NYSRC Reliability Rules
 - Doing so would provide locationally specific market signals consistent with the reliability need.
- **In addition, exploring load pocket reserves would further enhance the locationally specific value of maintaining short notice responsive resources in desirable locations.**

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External Resource Performance and Eligibility

External Resources Performance & Eligibility

- External capacity resources should be expected to perform and deliver energy at a level comparable with internal resource expectations.
- The report notes that external Installed Capacity (ICAP) suppliers typically offer in the energy market at or near the energy offer cap and, as a result, are infrequently scheduled to provide energy.
 - As a result, the deliverability of external capacity during real time critical operating periods has not been tested, as these would be the last resources dispatched.
- The authority for the NYISO to call on external resources that have sold into the NYISO markets exists today; however, software improvements are needed to better manage this process.
 - Deliverability to the New York Control Area (NYCA) border should be considered more completely when deciding which resources are able to sell capacity into the NYISO.
 - Requirements for external capacity resource should be improved to ensure these resources are providing value to grid operations that is comparable to internal resources.

External Resources Performance & Eligibility

- The NYISO is currently working with stakeholders on the “Deliverability Requirements for Capacity Imports” effort.
 - This effort has enhanced the notice regarding the minimum requirements for external capacity from PJM into the NYISO ICAP market to demonstrate deliverability.
 - The next steps will be to evaluate what, if any, additional performance requirements and obligations are needed, including an evaluation of requirements to demonstrate deliverability to the NYCA border at other interfaces.

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Tailored Availability Mechanism

Tailored Availability Mechanism

- **NYISO Management also recommends better accounting for resource performance through a tailored availability mechanism.**
 - The Equivalent Demand Forced Outage Rate (EFORd) of a resource measures its availability.
- **Monthly EFORd calculations today do not necessarily accurately account for unit availability during times of greatest need.**
 - Specifically, the current ICAP to Unforced Capacity translation uses a rolling average measure of availability, and this may under or overestimate preparedness during critical operating periods.
- **Targeting periods of the greatest need could improve cost-effectiveness.**
 - Doing so will better reflect the amount of capacity being provided by the resource, providing a more realistic view of the MW available.

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Tailored Availability Mechanism

- **Though availability is not the same as performance, knowing the actual amount of MW that can be expected from resources during critical operating periods is important to the reliability of the grid.**
 - More accountability for resource performance during critical instances also has the potential to increase competition and lower consumer cost in the energy market.
- **The NYISO and its stakeholders should pursue improvements to the calculation of EFORd to place more emphasis on performance during critical operating periods.**
 - Supporting this recommendation is the NYISO’s discussions with its stakeholders on improving availability measurements as part of its Integrating Public Policy effort.
 - Additionally, resource performance in the capacity market is being considered as part of the “Distributed Energy Resource (DER) Participation Model.”
 - It is important that the DER Participation Model efforts occur before the development of tailored availability metrics so that the rules for new resource types do not inadvertently create undesirable incentives favoring some resource types over another.

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Next Steps

Timeline

- **Future ICAPWG Meetings**
 - Continue the Deliverability Requirements for Capacity Imports effort as “External Resource Performance and Eligibility”
- **2019 Projects for Stakeholder Prioritization**
 - Operating Reserve Market Enhancements
 - Tailored Availability Mechanism
- **Other design improvements relevant to resource performance may prove promising to the NYISO and its stakeholders in the future.**

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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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