

More Granular Operating Reserves

Project Overview

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Agenda

- Background
- More Granular Operating Reserves
- NYISO Recommendation
- Timeline

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Background

Background

- This presentation further describes the More Granular Operating Reserves project for stakeholders.
 - This project is proposed for 2019 prioritization.

Background

- **The Performance Assurance Management Response*** indicated that the NYISO should consider establishing and securing a separate 10 minute reserve requirement for New York City (NYC).
 - New York State Reliability Council (NYSRC) reliability rules require that “[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.

*Presentation: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2018-02-21/Performance%20Assurance%20Feb%2021%20ICAPWG%20FINAL.pdf

Management Response: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2018-02-21/Performance%20Assurance%20Management%20Response%20Feb%2021%20MIWG%20FINAL.PDF



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State of the Market Recommendations

- **This project has the potential to address two recommendations from the 2017 State of the Market Report***
 - Potomac Economics recommended that the NYISO consider implementing local reserve requirements in New York City.
 - Potomac also recommended that the NYISO consider generator performance when paying for reserve.
 - The NYISO proposes to review reserve performance and offer solutions to address the issues that led to Potomac's recommendation.

See Recommendations 2016-2 and 2017-1 in the 2017 State of the Market Report, located at the following link:

http://www.nyiso.com/public/webdocs/markets_operations/documents/Studies_and_Reports/Reports/Market_Monitoring_Unit_Reports/2017/NYISO-2017-SOM-Report-5-07-2018_final.pdf



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More Granular Operating Reserves

New York City 10 Minute Total Operating Reserve

- **According to New York State Reliability Council (NYSRC) Reliability Rules, sufficient 10 minute operating reserve must be maintained in NYC.**
 - This requirement is calculated as a percentage of the NYCA 10 minute total reserve requirement of 1310 MW.
 - This percentage is equal to the ratio of the NYC zone (Zone J) peak load divided by the statewide peak load.
 - The NYISO currently verifies that 480 MW of 10 minute total reserve are available somewhere in Zone J to fulfill this NYSRC Reliability Rule.

New York City 10 Minute Total Operating Reserve

- SCUC produces a report comparing the amount of 10-minute reserve in Zone J to the 480 MW requirement.
- If a deficiency of NYC 10 minute reserve is anticipated when considering the Day-Ahead commitment results, then the NYISO will notify Con Edison.
 - If necessary, Con Edison may SRE resources to ensure adequate 10 minute reserve is procured.

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Load Pocket Reserves

- Aside from the NYSRC 10 Minute NYC requirement, there are also a variety of Applications of Reliability Rules (ARR) determined by the TOs as needed to meet NYSRC requirements for local areas under certain conditions; these can be fulfilled through resource commitments, dispatch reductions, or transfer limitations, many of which are out of market actions.
 - These rules are outlined in the Applications of Reliability Rules.*
- As part of this project, the NYISO will explore the possibility of incorporating ARRs within the market software through load pocket reserve requirements.
 - Such requirements offer the potential to provide a targeted procurement of reserve and a targeted price signal.

Link to the Applications of Reliability Rules:

www.nyiso.com/public/webdocs/markets_operations/market_data/reports_info/TO_Application_of_Reliability_Rules.pdf



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Reserve Performance

- **At times, generators within the NYCA may be unable to convert from reserve to energy.**
 - The NYISO will consider means to address non-performance of reserve providers as part of this project.
- **Specifically, the NYISO would review the causes of resource under-performance when converting from reserve to energy and seek to further define the problem and its contributing factors.**
 - The NYISO would then propose any necessary solution(s) to address the issue(s).
 - The NYISO recommends that this be completed before contemplating additional reserve performance payment rules.

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NYISO Recommendation

NYISO Recommendation

- This project is recommended for 2019 prioritization in the NYISO's 2018 Master Plan with a goal of Market Design Complete

2018	2019	2020	2021	2022	2023	Resource Flexibility	Grid Resilience	Price Formation
Market Design Concept Proposed	Market Design Complete	Functional Requirements	Development Complete	Deployment			X	X

- The outcomes of this project will inform other efforts:
 - The design and analysis effort would be complementary to Reserve Procurement for Resilience project.
 - The Master Plan recommends that both projects be pursued in 2019 with a goal of MDC.
 - Will help inform design for Ancillary Services Shortage Pricing.
 - Ancillary Services Shortage Pricing is recommended for development of market design in 2020.

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Next Steps

Timeline

- **June 15, 2018**
 - Stakeholders receive final project prioritization survey.
- **June 26, 2018**
 - Deadline for stakeholders to submit project prioritization survey.
- **Q3 2018**
 - The NYISO will continue any prioritized projects.

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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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