

Ancillary Services Shortage Pricing and Reserves for Resource Flexibility: Manual Updates

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Agenda

- **Project Overview**
- **Proposed revisions to the Ancillary Services Manual**
- **Proposed revisions to the Day-Ahead Scheduling Manual**
- **Proposed revisions to the Transmission and Dispatch Operations Manual**
- **Next Steps**

Background

Background: Project Status

- **Reserves for Resource Flexibility was implemented on June 17, 2021.**
 - Further details provided on Slide 5
- **Ancillary Services Shortage Pricing was implemented on July 13, 2021.**
 - Further details provided on Slides 6-8
 - Supplemental reserves component of the project was not accepted by FERC and therefore, not implemented.

Reserves for Resource Flexibility: Background

- **The NYISO proposes to procure up to an incremental 500 MW of 30-minute reserves in the Southeastern New York (SENY) reserve region (Load Zones G-K) as part of the Reserves for Resource Flexibility project.**
 - The current SENY 1,300 MW 30-minute reserve requirement serves to bring transmission assets to Emergency Transfer Criteria after suffering a contingency.
 - This proposal increases the portion of the total statewide reserve requirement carried in SENY from 1,300 MW to 1,550 or 1,800 MW in certain hours.
 - Procuring additional 30-minute reserves in the SENY reserve region during certain hours of the day will provide ready access to additional resource capability to bring transmission assets to Normal Transfer Criteria following a contingency.
 - Absent such a mechanism, out of market actions may be required to return facilities to Normal Transfer Criteria following a contingency
- **Proposal contemplates shifting of current locational reserve procurements only and does not propose to increase the 2,620 MW level of 30-minute total reserves procured statewide (NYCA).**
- **Consistent with the treatment of SENY reserves, the NYISO will reduce the NYC (Load Zone J) reserve requirements to zero MW in real-time during Thunderstorm Alerts (TSAs) as part of this project.**
- **This additional reserve requirement, when applicable, will be procured consistently in the Day-Ahead and Real-Time Markets (except in real-time during TSAs when the SENY reserve requirement is reduced to zero MW).**

Ancillary Services Shortage Pricing: Background

- **The NYISO proposed revisions to the current reserve demand curves**
 - Adjustments to shortage pricing values for EAST 30-minute reserves, EAST 10-minute reserves and SENY 30-minute incremental reserves (for hours when applicable) and NYCA 30-minute reserves
 - Additional “steps” for a more graduated demand curve for NYCA 30-minute reserves
 - The revised demand curve values are shown on Slides 7 and 8
- **The NYISO also proposed to use consistent treatment of the applicable Scarcity Reserve Requirement within the MW quantities assigned to the “steps” of the NYCA 30-minute reserve demand curve during all SCR/EDRP activations.**
 - Based on the proposed revisions to the NYCA 30-minute reserve demand curve for the existing statewide reserve requirement of 2,620 MW, the proposed enhancements would result in a revised three “step” curve during SCR/EDRP activations in real-time with consistent logic for assigning MW quantities across the three “steps”
 - \$750/MWh “step” up to and including 1,965 MW
 - \$625/MWh “step” beyond 1,965 MW through 2,020 MW
 - \$500/MWh “step” beyond 2,020 MW through (2,620 + the applicable Scarcity Reserve Requirement)

Overview of Proposed Enhancements

Reserve Region	Reserve Product	Reserve Reqt.	Demand curve (\$/MWh)		Rationale
			Current	Proposed	
NYCA	30-minute	2,620 MW	300 MW at \$25/MWh	200 MW at \$40/MWh	Allow a portion of the 30 minute total reserves to be forgone against price volatility
			-	125 MW at \$100/MWh	Facilitate reduction of unnecessary price volatility by further graduation of the NYCA 30-minute reserve demand curve
			355 MW at \$100/MWh	55 MW at \$175/MWh	Consistent with cost of operator actions to maintain 30-minute reserves (GT OOMs)
			-	55 MW at \$225/MWh	Consistent with cost of operator actions to maintain 30-minute reserves (SREs)
			300 MW at \$200/MWh	55 MW at \$300/MWh	Facilitate reduction of unnecessary price volatility by further graduation of the NYCA 30-minute reserve demand curve
			-	55 MW at \$375/MWh	Represents a value aligned with the average cost of 99% of the resource costs observed for historic SRE and OOM commitments
			-	55 MW at \$500/MWh	Consistent with cost of activating SCR/EDRP resources to maintain reserves
			-	55 MW at \$625/MWh	Facilitate reduction of unnecessary price volatility by further graduation of the NYCA 30-minute reserve demand curve
			1,665 MW at \$750/MWh	1,965 MW at \$750/MWh	Consistent with cost of operator actions to replenish by converting 30 min GTs to energy
NYCA	10-minute total	1,310 MW	\$750/MWh	\$750/MWh	Consistent with cost of operator actions to replenish by converting 30 min GTs to energy
NYCA	10-minute spin	655 MW	\$775/MWh	\$775/MWh	Provide scheduling priority to NYCA 10-minute total and NYCA 30-minute reserves
EAST	30-minute	1,200 MW	\$25/MWh	\$40/MWh	Facilitates distribution of reserves throughout NYCA
EAST	10-minute total	1,200 MW	\$775/MWh	\$775/MWh	Recognizes equal importance with NYCA 10-min spinning reserves
EAST	10-minute spin	330 MW	\$25/MWh	\$40/MWh	Facilitates distribution of reserves throughout NYCA

Overview of Proposed Enhancements

Reserve Region	Reserve Product	Reserve Req.	Demand curve (\$/MWh)		Rationale
			Current	Proposed	
SENY	30-minute	1,550 MW or 1,800 MW	250 MW or 500 MW at \$25/MWh (proposed; pending stakeholder review/approval)	250 MW or 500 MW at \$40/MWh (only if SENY incremental reserves proposal is approved by stakeholders)	supplemental reserves to facilitate returning transmission assets to Normal Transfer Criteria following a contingency (see Reserves for Resource Flexibility project)
			1,300 MW at \$500/MWh	1,300 MW at \$500/MWh	Consistent with cost of activating SCR/EDRP resources to maintain reserves
NYC	30-minute	1,000 MW	\$25/MWh	\$25/MWh	Facilitates distribution of reserves throughout NYCA
NYC	10-minute total	500 MW	\$25/MWh	\$25/MWh	Facilitates distribution of reserves throughout NYCA
LI	30-minute	270-540 MW	\$25/MWh	\$25/MWh	Facilitates distribution of reserves throughout NYCA
LI	10-minute total	120 MW	\$25/MWh	\$25/MWh	Facilitates distribution of reserves throughout NYCA

Prior Stakeholder Feedback

- **Based on stakeholder feedback from the 8/3/2021 ICAPWG/MIWG meeting, incremental changes were made to the following sections of each manual**
 - Day-Ahead Scheduling Manual: Section 4.3.4
 - Transmission and Dispatch Operations Manual: Section 7.3.6
 - Ancillary Services Manual: Sections 6.8.1 and 6.8.2
- **Versions of the manuals highlighting the incremental revisions are posted with the material for the 8/3/2021 ICAPWG/MIWG meeting**

Ancillary Services Manual Revisions

Ancillary Services Manual

- Updated capitalization of terms for improved consistency in use of tariff-defined terms
- Section 6.8
 - Ancillary Services Shortage Pricing:
 - Updated the Operating Reserve Demand Curve descriptions
 - Reserves for Resource Flexibility:
 - Updated the SENY 30-minute reserves description to include incremental reserve procurements
- Section 6.8.1
 - Ancillary Services Shortage Pricing:
 - Reflected the enhancements to NYCA 30-minute reserve demand curve modifications providing for consistent demand curve structure during all SCR/EDRP activations and updated Operating Reserve Demand Curve values.
 - Reserves for Resource Flexibility:
 - Updated descriptions of revised 30-minute Operating Reserve Demand Curves applicable during real-time SCR/EDRP activations to reflect SENY incremental 30-minute reserve procurements.
 - Revised the examples to be consistent with the approved changes for both projects
- Section 6.8.2
 - Updated the Operating Reserve demand curve values to reflect changes for both the Ancillary Services Shortage Pricing and Reserves for Resource Flexibility projects
 - Clarified the descriptions of the various demand curves

Ancillary Services Manual

- **Other changes**

- Section 4.3.5
 - Revised language for consistency with tariff-specified requirements

Transmission and Dispatch Operations Manual Revisions

Transmission and Dispatch Operations Manual

■ Section 7.3.6

- Updated the Operating Reserve Demand Curve values to reflect changes for both the Ancillary Services Shortage Pricing and Reserves for Resource Flexibility projects
- Clarified the descriptions of the various demand curves

Day-Ahead Scheduling Manual Revisions

Day-Ahead Scheduling Manual

■ Section 4.3.4

- Updated the Operating Reserve Demand Curve values to reflect changes for both the Ancillary Services Shortage Pricing and Reserves for Resource Flexibility projects
- Clarified the descriptions of the various demand curves

Next Steps

Next Steps

- **OC: September 17, 2021**
 - Seek approval of the proposed manual revisions

Questions?

Our mission, in collaboration with our 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 policymakers, stakeholders and investors in the power system

