New York ISO
Independent System Operator

10 Krey Boulevard, Rensselaer, NY 12144
Ph: 518.356.6000 | Fax: 518.356.8899

February 2, 2021

Submitted Electronically

Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street N.E.
Washington, D.C. 20426

Re: *New York Independent System Operator, Inc.*'s Proposed Tariff Amendments to Revise the Operating Reserves Demand Curves and to Establish the Process to Procure Supplemental Reserves;
Docket No. ER21-___-000.

Dear Ms. Bose:

In accordance with Section 205 of the Federal Power Act[1] and Part 35 of the regulations of the Federal Energy Regulatory Commission ("Commission"), the New York Independent System Operator, Inc. ("NYISO") submits proposed revisions to its Market Administration and Control Area Services Tariff ("Services Tariff") to implement revisions to the process for procuring Operating Reserves throughout the New York Control Area ("NYCA") and to establish the process and procedures to procure supplemental reserves, if needed, in the future.[2]

The NYISO Management Committee ("MC") approved the proposed revisions, without opposition, on November 18, 2020. The NYISO respectfully requests that the proposed revisions be permitted to take effect in June 2021, as discussed further in Section IV below.

I. List of Documents Submitted

The NYISO submits the following documents with this filing letter:

1. A clean version of the proposed revisions to the NYISO's Services Tariff ("Attachment I"); and

2. A backline version of the proposed revisions to the NYISO's Services Tariff ("Attachment II").

[1] 16 U.S.C. § 824d.

[2] Capitalized terms not otherwise defined herein shall have the meaning specified in the Services Tariff.

II. Background

The NYISO has implemented several locational reserve regions to procure various Operating Reserves to meet reliability requirements and other operational considerations. The NYISO currently procures Operating Reserves for the following locational reserve regions: (1) New York Control Area ("NYCA") or statewide (*i.e.*, Load Zones A-K); (2) East of Central-East (*i.e.*, Load Zones F-K); (3) Southeastern New York or SENY (*i.e.*, Load Zones G-K); (4) Long Island (*i.e.*, Load Zone K); and (5) New York City (*i.e.*, Load Zone J).[3]

Consistent with New York State Reliability Council ("NYSRC") reliability rules, the NYISO currently procures 2,620 MW of Operating Reserves statewide.[4] Reliability rules require that 1,310 MW of this current total statewide reserve requirement (*i.e.*, an amount sufficient to replace loss of the current largest single contingency) be comprised of 10-minute reserves.[5] One-half of the 10-minute reserves required statewide (*i.e.*, 655 MW) are further required to be comprised of 10-minute synchronized or spinning reserves.[6] To facilitate the availability of sufficient resource capability to restore transmission flows to within applicable ratings following the most severe transmission contingency, 1,200 MW of the total statewide 10-minute reserve requirement is procured from resources located within the East of Central-East reserve region.[7] To assist with ensuring the capability to respond to the loss of transmission or generation within the Southeastern New York ("SENY") region, 1,300 MW of reserve capability required statewide is procured from resources in SENY in the form of 30-minute reserves.[8] Reliability rules also require the NYISO to carry approximately 1,000 MW of its reserves within New York City, inclusive of approximately 500 MW of 10-minute reserve capability.[9]

---

[3] *See* NYISO, Locational Reserve Requirements, available at: https://www.nyiso.com/documents/20142/3694424/nyiso_locational_reserve_reqmts.pdf/ab6e7fb9-0d5b-a565-bf3e-a3af59004672.

[4] New York State Reliability Council, L.L.C. ("NYSRC"), *Reliability Rules & Compliance Manual: Version 43* at Reliability Requirement E.1-R2b, available at: http://www.nysrc.org/pdf/Reliability%20Rules%20Manuals/RRC%20Manual%20V43%20Final[4070].pdf.

[5] *Id*. at Reliability Requirement E.1-R2a.

[6] *Id*. at Reliability Requirement E.1-R3.1.

[7] *Id*. at Reliability Requirement C.1-R1 (see Table C-2).

[8] The NYISO implemented the SENY reserve region and its associated reserve requirements in November 2015. *See, e.g.*, Docket No. ER15-1061-000, *New York Independent System Operator, Inc.*, Proposed Tariff Revisions to Ancillary Service Demand Curves and the Transmission Shortage Cost (February 18, 2015); and *New York Independent System Operator, Inc.*, 151 FERC ¶ 61,057 (2015). The NYISO intends to increase the quantity of 30-minute reserves procured in the SENY reserve region by up to 500 MW in June 2021. *See* Docket No. ER21-625-000, *New York Independent System Operator, Inc.*, Proposed Tariff Revisions to Implement Southeastern New York Reserve Enhancements (December 11, 2020) and *New York Independent System Operator, Inc.*, Docket No. ER21-625-000, unpublished letter order, (January 28, 2021).

[9] NYSRC, *Reliability Rules & Compliance Manual: Version 43* at Reliability Requirement C.1-R1 (see Table C-2) and Reliability Requirement G.1-R3, available at: http://www.nysrc.org/pdf/Reliability%20Rules%20Manuals/RRC%20Manual%20V43%20Final[4070].pdf. The NYISO implemented the New York City reserve region and its associated reserve requirements in June 2019. *See* Docket No. ER19-1678-000, *New York Independent System Operator, Inc.*, Proposed Tariff Revisions to Implement

In 2019, the NYISO conducted a study in collaboration with its stakeholders to assess its current reserve procurement practices and identify potential enhancements to further explore with stakeholders.[10] The study identified potential opportunities to improve reserve pricing efficiency and reduce unnecessary price volatility through assessing: (1) potential changes to low value shortage pricing levels utilized by the current reserve demand curves; and (2) further graduation of the NYCA 30-minute reserve demand curve. The study further acknowledged the value of reassessing the current shortage pricing values to ensure consistency with the cost of various actions that may be taken to maintain system reliability.

Technological developments, economic and environmental considerations, and public policies are transforming the electric grid and resource mix in New York.[11] The evolution of New York's electric system to a clean energy system with increasing reliance on weather-dependent generation sources introduces the potential for additional system volatility in the future. Access to sufficient quantities of flexible resources is of paramount importance as the level of reliance on weather-dependent renewable generation increases over time. Implementing a process to expeditiously implement reserve procurements in excess of minimum reliability requirements, while maintaining open and transparent stakeholder engagement, is necessary to help maintain system reliability as the transition of New York's energy system continues to rapidly unfold over the coming years.

In response to the recommendations of its 2019 study and the ongoing transformation of New York's electric grid to a clean energy system, the NYISO proposes certain enhancements to its current reserve procurement processes and procedures. The proposed enhancements include: (1) revisions to certain shortage pricing values designed to: (i) improve pricing efficiency, (ii) provide for better alignment with cost of actions that may be taken to preserve sufficient availability of reserves and maintain system reliability, and (iii) reduce historical occurrences of reserve shortages; and (2) establishment of a process to facilitate implementing reserve procurement requirements in excess of the quantities required by minimum reliability standards and rules to the extent such supplemental reserves are needed to assist with maintaining system reliability in the future.

---

a New York City Operating Reserves Region (April 26, 2019); and Docket No. ER19-1678-000, *supra*, Letter Order (June 21, 2019).

[10] NYISO, *Ancillary Services Shortage Pricing* (December 2019), available at: https://www.nyiso.com/documents/20142/9622070/Ancillary%20Services%20Shortage%20Pricing_study%20report.pdf ("2019 Shortage Pricing Study").

[11] For example, the recently enacted Climate Leadership and Community Protection Action requires that: (1) 70% of the state's electricity requirements be met by eligible renewable generation resources by 2030; and (2) zero-emission resources serve 100% of New York's electric requirements by 2040. *See* Chapter 106 of the Laws of the State of New York of 2019.

III. Description of Proposed Revisions to the Services Tariff

The tariff revisions proposed in this filing consist of two primary components. First, the NYISO proposes revisions to the current Operating Reserve Demand Curves.[12] Second, the NYISO proposes a tariff-prescribed process to implement and adjust, if necessary, the procurement of additional Operating Reserves beyond the minimum reliability requirements ("supplemental reserves") as reliance on weather-dependent intermittent renewable generation to serve load in New York increases over time. In addition, the NYISO proposes revisions to the structure of the NYCA 30-Minute Reserve demand curve that applies in real-time during activations of Special Case Resources ("SCRs") and/or the Emergency Demand Response Program ("EDRP") in less than all zones for consistency with the reserve demand curve structure that applies to statewide activations of such demand response resources.[13]

A. Operating Reserve Demand Curve Enhancements

The NYISO proposes revisions to the values and steps of the existing Operating Reserve Demand Curves described throughout Services Tariff Section 15.4.7. The proposed values are intended to facilitate continued compliance with applicable reliability requirements and better align the cost values with recent data demonstrating the value of certain actions taken to maintain reserve availability and system reliability. Updating the demand curve values will provide targeted market signals that align with actual reliability needs at the times when actions would be required to maintain reliability, including manual operator actions. The updated values are intended to reflect the locational price signals necessary to incent resources to develop and/or maintain the capability to provide reserves when and where needed.

Based on the NYSRC reliability rules, the NYCA 30-minute requirement of 2,620 MW addresses various contingencies. A quantity equal to 1,965 MW addresses the requirement to maintain Operating Reserves to cover 1.5 times the single largest contingency (*i.e.*, 1.5*1,310 MW). The NYISO operators seek to avoid reserves falling below this value at all times. Therefore, the NYISO proposes to revise the current MW quantity assigned the highest pricing value for the NYCA 30-minute reserve demand curve to cover this entire quantity.[14] The

[12] The Operating Reserve Demand Curves establish maximum Shadow Price costs that the market software will incur in seeking to satisfy the various locational reserve requirements. These reserve demand curves are also intended to represent the escalating value of reserves as the level of resources capable of providing such services decreases. Escalating prices under shortage conditions facilitate proper economic signals regarding the value of these reliability and resiliency services.

[13] Following the Day-Ahead Market software's co-optimized commitment of resources to provide the required energy and ancillary services, the NYISO reviews the energy and reserve schedules to determine whether reserve schedules are sufficient to satisfy the applicable reserve requirements. If the scheduled reserves are insufficient to meet the reserve requirements, the NYISO may also elect to activate SCRs and/or the EDRP to maintain adequate reserves. Load reductions provided by these activations free up available production capability of other resources that can be utilized to satisfy the applicable reserve requirements.

[14] Currently, the maximum value on the NYCA 30-minute reserve demand curve applies to 1,665 MW of reserves. The NYISO proposes to increase the MW quantity assigned to this "step" of the reserve demand curve by 300 MW to encompass the full 1,965 MW quantity currently required by applicable reliability rules.

NYISO also proposes to maintain the existing $750/MWh maximum allowable Shadow Price assigned to this quantity of reserves.[15] To assess the reasonableness of this shortage pricing value, the NYISO evaluated operating costs of resources on peak load days since the 2016/2017 Winter Capability Period.[16] The NYISO's analysis indicated that the current $750/MWh remains consistent with resource operating costs observed on peak load days.[17]

For the remaining 655 MW of NYCA 30-minute reserves, the NYISO proposes to utilize a stepped approximation of an exponential curve to set defined MW and price pairs to represent the NYCA 30-minute reserve demand curve. An exponential curve was used because, as the quantity of reserves procured decreases toward 1,965 MW of available 30-minute reserves, the operators are more likely to take manual actions to mitigate the increasing risk to system reliability. In order to improve energy market price formation, shortage pricing values should be set at levels that are consistent with the costs of actions taken to maintain system reliability. Further graduation of the NYCA 30-minute reserve demand curve could reduce unnecessary price volatility. In evaluating the current shortage pricing values, the NYISO considered the cost of resources capable of providing reserves on peak load days, the cost of demand reductions from SCR/EDRP activations, the cost of Supplemental Resource Evaluation ("SRE") commitments, the cost of out-of-merit ("OOM") actions to commit fast-start resources, and simulations of historical Real-Time Commitment ("RTC") intervals with reserve shortages to determine a pricing level at which re-dispatch occurs to resolve the shortages.[18]

The NYISO's proposal seeks to include five additional steps to the structure of the NYCA 30-minute curve.[19] The proposed curve represents the cost of various operator actions that may be utilized to maintain reliability. The penultimate step is a 55 MW block of 30-minute reserves (*i.e.*, the block that ranges from greater than 1,965 MW of 30-minute reserves to less than or equal to 2,020 MW) and will be priced at a demand curve value of $625/MWh. This pricing point is proposed to facilitate reduction of unnecessary price volatility by further graduation of the NYCA 30-minute reserve demand curve. Steps three through seven all consist

[15] This maximum allowable Shadow Price value also applies to requirement to procure 1,310 MW of 10-minute reserves statewide. The maximum allowable Shadow Price values assigned to various quantities of reserves by the various reserve demand curves are commonly referred to as "shortage price" values.

[16] *See*, *e.g.*, NYISO, *Ancillary Services Shortage Pricing* (presented to the Market Issues Working Group on April 7, 2020) at 19-27, available at: https://www.nyiso.com/documents/20142/11759586/Ancillary%20Services%20Shortage%20Pricing%20MIWG%2004072020.pdf ("April 7 MIWG Presentation"); and NYISO, *Ancillary Services Shortage Pricing* (presented to the Management Committee on November 18, 2020) at 28-39, available at: https://www.nyiso.com/documents/20142/16885911/06%20Ancillary%20Services%20Shortage%20Pricing.pdf ("November 18 MC Presentation").

[17] *See*, *e.g.*, April 7 MIWG Presentation at 22-23; and November 18 MC Presentation at 32-34.

[18] *See*, *e.g.*, NYISO, *Ancillary Services Shortage Pricing* (presented to the Market Issues Working Group on April 27, 2020) at 9-17, available at: ("April 27 MIWG Presentation"); and November 18 MC Presentation at 27-39.

[19] The proposal would revise the NYCA 30-minute reserve demand curve to include a total of nine steps compared to the current four step reserve demand structure that applies for all periods except when the NYISO has activated SCRs and/or the EDRP in real-time.

of 55 MW blocks and are priced at shortage pricing values of $175/MWh, $225/MWh, $300/MWh, $375/MWh, and $500/MWh, respectively. The proposed $500/MWh value is consistent with the cost of activating SCRs and/or the EDRP to maintain reserves.[20] The $375/MWh value is proposed to facilitate reduction of unnecessary price volatility by adding a step to the reserve demand curve. The proposed $225/MWh value is consistent with the cost of operating actions, such as SRE commitments, to maintain 30-minute reserves.[21] The proposed $175/MWh value is consistent with the cost of operator actions to OOM gas turbines to maintain 30-minute reserves.[22] The first two proposed steps for the NYCA 30-minute reserve demand curve are 200 MW valued at $40/MWh[23] and 125 MW valued at $100/MWh. Both of these steps are designed to facilitate reductions of unnecessary price volatility.

The NYISO's proposal to increase the value of the current $25/MWh shortage price value to $40/MWh is based on an analysis conducted to determine a revised value that could seek to avoid historically observed reserve procurement shortages. The NYISO's 2019 study identified that the most frequent reserve shortages occurred with respect to reserves subject to the lowest assigned shortage pricing values.[24] The NYISO, therefore, conducted an evaluation of revisions to such pricing values that could assist with reducing the occurrence of historical reserve procurement shortage events.[25]

The NYISO's analysis of historical reserve shortage events identified that increasing the current $25/MWh shortage pricing value to $40/MWh significantly reduced the historically observed shortages. In fact, based on an analysis of 16 historical RTC intervals in which shortages of various reserve products occurred, the NYISO found that increasing the $25/MWh shortage pricing value to $40/MWh would have eliminated such shortages in 87% of all such events.[26]

In the absence of other considerations that may warrant retention of the current $25/MWh shortage pricing value, the results of this analysis support increasing this value to $40/MWh for all reserve products and quantities assigned the $25/MWh value.[27] Due to market power

[20] *See, e.g.*, April 7 MIWG Presentation at 24; and November 18 MC Presentation at 35.

[21] *See, e.g.*, April 7 MIWG Presentation at 25; and November 18 MC Presentation at 36.

[22] *See, e.g.*, April 7 MIWG Presentation at 26; and November 18 MC Presentation at 37.

[23] As further described below, the proposed first step of the NYCA 30-minute reserve demand curve includes a proposal to increase the shortage pricing value for this step of the reserve demand curve from $25/MWh.

[24] 2019 Shortage Pricing Study at 11-12.

[25] *See, e.g.*, NYISO, *Ancillary Services Shortage Pricing* (presented to the Market Issues Working Group on August 10, 2020) at 8-10, available at: https://www.nyiso.com/documents/20142/14404876/Ancillary%20Services%20Shortage%20Pricing_08102020_MIWG_final.pdf ("August 10 MIWG Presentation"); and November 18 MC Presentation at 38-39.

[26] *See, e.g.*, August 10 MIWG Presentation at 9; and November 18 MC Presentation at 38.

[27] The proposal to increase the current $25/MWh shortage pricing value to $40/MWh applies to the following reserve products currently assigned a non-zero reserve procurement target: (1) a portion of NYCA 30-minute reserves (*i.e.*, 200 MW pursuant to the NYISO's proposal herein); (2) the total quantity of East of Central-East 10-minute total reserves; (3) the total quantity of East of Central-East spinning reserves; and (4) the additional

concerns arising from the relatively limited number of available reserve providers within each reserve region, NYISO proposes to retain the $25/MWh shortage pricing values that apply to reserve products for the New York City and Long Island reserve regions.[28]

The proposed changes to the shortage pricing levels are summarized in the table below.

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 historical 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 reserves 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 reserves 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

SENY 30-minute reserves recently proposed by the NYISO and accepted by the Commission in Docket No. ER21-625-000 (*see*, *New York Independent System Operator, Inc.*, Docket No. ER21-625-000, unpublished letter order (January 28, 2021)).

[28] *See*, *e.g.*, August 10 MIWG Presentation at 9-10; and November 18 MC Presentation at 38-39.

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
SENY	30-minute	1,550 MW or 1,800 MW	250 MW or 500 MW at $25/MWh	250 MW or 500 MW at $40/MWh	Additional 30-minute reserves to facilitate returning transmission assets to Normal Transfer Criteria following a contingency
			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

B. Supplemental Reserves

New York's electric grid is transitioning to a clean energy system driven by a combination of energy and environmental policies and technological innovation. Increasing reliance on both grid-connected weather-dependent generation sources as well as behind-the-meter solar resources presents more frequent potential for additional system volatility.[29] Access to sufficient quantities of flexible resources, including reserves, is of paramount importance and must be available to keep pace with increasing reliance on weather-dependent renewable generation.[30] Implementing a process to expeditiously establish reserve procurement levels in excess of minimum reliability requirements will safeguard the NYISO's ability to maintain system reliability as the transition of the New York's energy system unfolds.

[29] *See, e.g.*, NYISO, *Proposed Approach for Considering Grid In Transition Recommendations* (presented to the Market Issues Working Group on December 7, 2020) at 10 (for a summary of New York's clean energy policies), available at: https://www.nyiso.com/documents/20142/17450815/20201201%20NYISO%20-%20Approach%20for%20Considering%20Grid%20in%20Transition%20Recommendations%20FOR%20POSTING.pdf; and NYISO, *Reliability and Market Considerations for a Grid in Transition* (December 20, 2019), available at: https://www.nyiso.com/documents/20142/2224547/Reliability-and-Market-Considerations-for-a-Grid-in-Transition-20191220%20Final.pdf.

[30] The NYISO procures reserves in its Day-Ahead Market on an hourly basis and in the Real-Time Market nominally every five minutes. Reserve schedules for resources are determined through the market co-optimization based on the available upward ramp capability of the individual resource. Procuring additional reserves in the form of supplement reserves is intended to efficiently provide the NYISO with additional dispatch flexibility to support system reliability.

The NYISO proposes the establishment of an open and transparent process to facilitate the assessment, and when necessary implementation, of supplemental reserve requirements in collaboration with its stakeholders. The proposed process seeks to provide transparency and clarity to the marketplace by predefining the applicable shortage pricing values for any future supplemental reserve requirements implemented to manage reliability concerns that may arise from the ongoing transition to a clean energy system. The proposed process also includes appropriate safeguards related to the identification and evaluation of supplemental reserve needs, including the explicit requirement for stakeholder approval of any proposals to implement and/or adjust supplemental reserves.

The NYISO proposes additional revisions throughout Services Tariff Section 15.4.7 to establish a process to implement supplemental reserves when warranted in the future. The NYISO is not proposing to introduce any supplemental reserve requirements at this time. The proposed revisions only contemplate implementing and/or adjusting supplemental requirements for the existing reserve products (*i.e.*, spinning, 10-minute, and 30-minute reserves).[31] The supplemental reserves are designed to primarily address potential needs that could arise quickly from NYISO's expected forecasting accuracy of load and production capability from Intermittent Power Resources[32] that depend on wind or solar energy as their fuel.[33] The quantity of weather-dependent renewable generation resources is expected to increase dramatically over the next several years.[34]

When the NYISO determines that supplemental reserves need to be implemented, or adjusted, the NYISO will review the proposal to implement or adjust supplemental reserves with stakeholders. The proposed revisions require the NYISO to obtain Operating Committee approval of the proposal to implement/adjust supplemental reserves at least 30 days prior to being implemented in the wholesale markets.[35] The procedures for implementing and adjusting supplemental reserve requirements are substantially similar to the existing procedures for

[31] A separate initiative would be required to implement any new reserve product types/durations.

[32] The NYISO tracks and reports on load, wind, and solar forecasting performance in its monthly Operations Reports. For example, relevant data is provided in the December 2020 Operations Report at 6-14, available at: https://www.nyiso.com/documents/20142/18540719/Operations_Report.pdf.

[33] *See, e.g.*, November 18 MC Presentation at 7-10 and 40-44.

[34] As of December 31, 2020, the NYISO Interconnection Queue included nearly 10,000 MW of proposed solar resource projects and more than 17,000 MW of proposed wind resources. *See* Interconnection Queue Excel files available at www.nyiso.com/interconnections.

[35] During the development of the supplemental reserves component of the proposal, certain stakeholders raised concerns regarding the process for implementing and/or adjusting any supplemental reserve requirements when needed in the future. In response to stakeholder concerns, the NYISO revised its initial proposed process to include an explicit requirement for stakeholder approval of any proposed supplemental reserve requirements. This approach will facilitate collaboration with stakeholders on the criteria for assessing the need for supplemental reserves and information to be reviewed with stakeholders to support any proposal to implement or adjust any supplemental reserve requirements. The NYISO will continue developing additional procedural requirements for reviewing supplemental reserve proposals in collaboration with stakeholders during the first half of 2021. *See* November 18 MC Presentation 9-10 and 41-44.

adjusting Regulation Service requirements.[36] These procedures require the NYISO to review proposed changes to the existing Regulation Service requirements with stakeholders, including a requirement to obtain stakeholder approval at the Operating Committee prior to implementing certain proposed reductions to the current Regulation Service requirements.

Consistent with other reserve requirements, the proposed revisions require the NYISO to post any supplemental reserve requirements.[37] The proposed tariff revisions obligate the NYISO to separately identify any applicable supplemental reserve requirements as part of its reserve requirements posting.

The NYISO proposes to price supplemental reserves, when implemented pursuant to the process discussed above, based on the following shortage pricing values in all reserve regions. These shortage price values are included in the proposed revisions to Services Tariff Section 15.4.7.[38]

- Any supplemental 30-minute reserves = $10/MWh
- Any supplemental 10-minute total reserves = $12/MWh
- Any supplemental 10-minute spinning reserves = $15/MWh

C. NYCA 30-Minute Reserve Demand Curve During SCR/EDRP Activations and the Interaction of Supplemental Reserves with Scarcity Reserve Requirements

During SCR program and/or EDRP activations (*i.e.*, statewide activations and activations of less than all zones), the NYISO utilizes special pricing rules for reserves (commonly referred to as "scarcity pricing" rules). These provisions alter the otherwise applicable reserve requirements and the Operating Reserve Demand Curves in real-time for the locational reserve regions impacted by a demand response program activation.[39] The intent of these special procedures is to reflect the costs associated with deploying these demand response resources in real-time prices.

Currently, the scarcity pricing rules provide for slightly different reserve demand curve structures for NYCA 30-minute reserves depending on whether a demand response activation encompasses all Load Zones or a subset thereof.[40] The NYISO proposes to align the structure of the NYCA 30-minute reserve demand curve regardless of the number of Load Zones in which

[36] *See* NYISO Ancillary Services Manual § 4.1.

[37] The current reserve requirements are set forth in the "Locational Reserve Requirements" posting, available at: https://www.nyiso.com/documents/20142/3694424/nyiso_locational_reserve_reqmts.pdf.

[38] November 18 MC Presentation at 11 and 45-52.

[39] *See*, *e.g.*, Docket No. ER16-425-000, *New York Independent System Operator, Inc.*, Proposed Revisions to Services Tariff and OATT to Implement Improved Scarcity Pricing (November 30, 2015); Docket No. ER16-425-000, *supra*, Compliance Filing (March 25, 2016); Docket No. ER16-425-000, *supra*, Response to Data Request (May 26, 2016); and *New York Independent System Operator, Inc.*, 154 FERC ¶ 61,152 (2016).

[40] *See*, *e.g.*, August 10 MIWG Presentation at 12. Importantly, such differential treatment has not resulted in any adverse pricing outcomes since implementation of the current scarcity pricing rules in June 2016.

the NYISO activates demand response resources.[41] As a result, the proposed enhancements introduce consistent logic for assigning MW quantities across the steps of the revised NYCA 30-minute reserve demand curve that applies in real-time during all SCR/EDRP activations. For example, based on the reserve demand curve enhancements proposed herein and the current 2,620 MW requirement for NYCA 30-minute reserves, the following three step reserve demand curve would apply in real-time for NYCA 30-minute reserves during all SCR/EDRP activations:

- $750/MWh for the procurement of up to and including 1,965 MW of 30-minute reserves;
- $625/MWh for the procurement of reserves beyond 1,965 MW, up to and including 2,020 MW of 30-minute reserves; and
- $500/MWh for the procurement of 30-minute reserves beyond 2,020 MW through a quantity equal to 2,620 MW, plus the applicable Scarcity Reserve Requirement.

The NYISO also proposes revisions to the current scarcity pricing rules to address the potential for implementing supplemental 30-minute reserve requirements in the future.[42] For locations affected by SCR/EDRP activations, to the extent that a supplemental 30-minute reserve requirement is in effect for any such region during the period of the real-time SCR/EDRP activation the NYISO will procure the greater of the applicable Scarcity Reserve Requirement or supplemental 30-minute reserve requirement in each such affected location. As such, reserves procured to satisfy any applicable Scarcity Reserve Requirement will simultaneously serve to meet any applicable supplemental 30-minute reserve requirement. If the applicable supplemental 30-minute reserve requirement for an affected location exceeds the applicable Scarcity Reserve Requirement for such region, the NYISO's proposal would maintain the proposed $10/MWh shortage pricing value for only the quantity of 30-minute supplemental reserves that exceeds the applicable Scarcity Reserve Requirement(s).

IV. Effective Date

The NYISO respectfully requests that the Commission issue an order accepting the tariff revisions proposed in this filing on or before April 5, 2021 (*i.e.*, sixty days after submission of this filing) with a flexible effective date between June 1, 2021 and June 30, 2021. The NYISO cannot propose a more precise effective date until the software changes necessary to implement the proposed tariff revisions are finished, adequately tested, and the software deployment is scheduled. The NYISO proposes to submit a compliance filing at least two weeks prior to the proposed effective date that will specify the date on which the revisions will take effect. Consistent with Commission precedent, the compliance filing will provide adequate notice to the Commission and Market Participants of the implementation date for the revisions proposed herein.[43]

---

[41] *See, e.g.*, August 10 MIWG Presentation at 13.

[42] *See, e.g.*, November 18 MC Presentation at 15 and 53-58.

[43] *See, e.g., New York Indep. Sys. Operator, Inc.*, 106 FERC ¶ 61,111 at P 10 (2004); Docket No. ER 11-2544-000, *New York Indep. Sys. Operator, Inc.*, Letter Order at 1 (February 10, 2011); Docket No. ER15-485-000,

The NYISO also requests a waiver of the Commission's regulations to allow the NYISO to make this filing more than 120 days prior to the date on which the proposed tariff revisions are to become operational.[44] No Market Participant will be prejudiced by this request because the NYISO has informed stakeholders of the anticipated implementation timeframe for this proposal. Submitting the proposed tariff revisions now will provide more certainty of the upcoming market rule changes.

V. Stakeholder Approval

The Management Committee approved the revisions to the Services Tariff on November 18, 2020 without opposition. The NYISO Board of Directors approved the proposed tariff revisions on December 3, 2020.

VI. Correspondence

All communications and correspondence concerning this filing should be directed to:

Robert E. Fernandez, Executive Vice President & General Counsel
Karen G. Gach, Deputy General Counsel
Raymond Stalter, Director, Regulatory Affairs
*Garrett E. Bissell, Senior Attorney
*James H. Sweeney, Senior Attorney
New York Independent System Operator, Inc.
10 Krey Boulevard
Rensselaer, NY 12144
Tel: (518) 356-6000
Fax: (518) 356-7678
gbissell@nyiso.com
jsweeney@nyiso.com

* Person designated for receipt of service

VII. Service

The NYISO will send an electronic link to this filing to the official representative of each of its customers, each participant on its stakeholder committees, the New York State Public Service Commission, and the New Jersey Board of Public Utilities. The NYISO will also post the complete filing on its website at www.nyiso.com.

New York Indep. Sys. Operator, Inc., Letter Order at 2 (January 15, 2015); *New York Indep. Sys. Operator, Inc.*, 151 FERC ¶ 61,057 at P 20 (2015); *New York Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,033 at P 34 (2020).

[44] *See* 18 C.F.R. § 35.3(a)(1).

VIII. Conclusion

The NYISO respectfully requests that the Commission waive its regulations to allow the NYISO to make this filing more than 120 days prior to the date on which the proposed tariff revisions are to become operational, and issue an order on or before April 5, 2021 accepting the tariff revisions proposed in this filing without modification, with a flexible effective date in June 2021.

Respectfully submitted,

/s/ James H. Sweeney
James H. Sweeney, Senior Attorney
New York Independent System Operator, Inc.

cc: Jignasa Gadani
Jette Gebhart
Leanne Khammal
Kurt Longo
John C. Miller
David Morenoff
Larry Parkinson
Douglas Roe
Frank Swigonski
Eric Vandenberg
Gary Will