**UNITED STATES OF AMERICA**
**BEFORE THE**
**FEDERAL ENERGY REGULATORY COMMISSION**

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| **New York Independent System Operator, Inc.** | **)** | **Docket No. EL18-33-000** |

# INITIAL BRIEF OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

Pursuant to the Order Instituting Section 206 Proceeding and Commencing Paper Hearing Procedures and Establishing Refund Effective Date in the above-referenced proceeding ("Order"),[1] the New York Independent System Operator, Inc. (the "NYISO") respectfully submits its Initial Brief to the Federal Energy Regulatory Commission ("FERC" or "Commission"). As outlined in more detail below, the NYISO does not contest the preliminary findings set forth in the Order. To the extent that the Commission subsequently adopts those findings, the NYISO asks here only for the flexibility necessary to adopt changes on a timetable that is practicable given the NYISO's existing commitments and for the ability to make minor adjustments to the Order's proposals to accommodate region-specific circumstances in New York. Allowing for such flexibility in implementation is fully consistent with the Commission's goals, as set forth in the Order, given the nature of the NYISO fast-start rules and the attributes of existing fast-start resources in the New York Control Area ("NYCA").

Therefore, consistent with the Commission's instructions, this Initial Brief outlines the NYISO's proposed approach to amend its tariffs and revise its market software to: (1) modify

[1] *New York Independent System Operator, Inc.*, 161 FERC ¶ 61,294 (2017).

pricing logic to allow fast-start resources' commitment costs (*i.e.*, start-up costs and minimum generation (no-load) costs) to be reflected in prices; and (2) allow the relaxation of all dispatchable fast-start resources' economic minimum operating limits by up to 100 percent for the purpose of setting prices.

Currently, nearly all of the fast-start resources in the NYISO are block-loaded rather than dispatchable, and the existing pricing rules allow these units to be eligible to set price during the intervals in which they are called upon. However, the NYISO recognizes that changes to its fast-start market design will be necessary to accommodate other types of resources that are expected to enter its markets in the future in response to various public policy goals, which will result in more intermittent generation resources and more dispatchable fast-start resources connecting to the electric grid. Making the fast-start pricing changes discussed in the Order, at the appropriate time, presents a valid path forward to compensate resources for the services they are providing, to transparently reflect the marginal cost of serving load and to value fast-start resources' ability to meet system needs.[2]

The NYISO respectfully requests that the Commission provide implementation flexibility for the NYISO to develop and implement fast-start pricing changes by the end of 2020.[3] The proposed implementation deadline is necessary to permit NYISO to finish the Energy Management System ("EMS")/Business Management System ("BMS") Upgrade Project (further described below in section I.F of this Initial Brief) first. The proposed timing is appropriate because the NYISO's existing fast-start pricing rules, first implemented in 2001 ("Hybrid

[2] *See* Order at P 6.

[3] The NYISO also articulated these timing concerns in response to the Commission's notice of proposed rulemaking on *Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 81 Fed. Reg. 96,391 (Dec. 30, 2016) ("NOPR"). *See Comments of the New York Independent System Operator, Inc.*, Docket No. RM17-3 (February 28, 2017) at pp. 22-23 ("NYISO NOPR Comments").

Pricing")[4] and most recently revised in 2017 ("Online Fast-Start Pricing"),[5] were previously determined to be just and reasonable,[6] and work well with respect to the NYCA's existing fleet of fast-start resources, which are primarily block-loaded. Allowing them to remain in effect during an interim implementation period will not be unjust or unreasonable.

## I. DISCUSSION

### A. Expansion of Rules to Include Dispatchable Fast-Start Resources

The Commission preliminarily concludes that NYISO should modify its Online Fast-Start Pricing rules and software logic to include dispatchable fast-start resources, in addition to blockloaded, fast-start resources.[7] In particular, the Commission states that NYISO should modify its tariffs to "[r]elax the economic minimum operating limit of all dispatchable fast-start resources by up to 100 percent for purpose of setting prices" in addition to relaxing the economic minimum operating limit of block-loaded, fast-start resources.[8]

The NYISO's Online Fast-Start Pricing currently relaxes the minimum operating limits of certain fast-start, block-loaded resources to zero MW and models these resources as flexible to their Upper Operating Limit ("UOL") to permit these resources to be eligible to set price based on the incremental need that required their commitment.[9] The NYISO expects that it would

[4] *See New York Independent System Operator, Inc.*, 95 FERC ¶ 61,121 (2001). The NYISO's Hybrid Pricing applies to Real-Time Market pricing. For the purposes of the Day-Ahead Market, block-loaded resources are treated as flexible (*i.e.*, treating the resource as if it could be dispatched at any level between zero and the resource's maximum capability) and, thus, eligible to set pricing to the extent they are economically committed to serve load.

[5] *See New York Independent System Operator, Inc.*, Letter Order in Docket No. ER17-549-000 (January 31, 2017).

[6] *See New York Independent System Operator, Inc.*, 95 FERC ¶ 61,121 (2001), *New York Independent System Operator, Inc.*, 112 FERC ¶ 61,075 (2005), and *New York Independent System Operator, Inc.*, Letter Order in Docket No. ER17-549-000 (January 31, 2017).

[7] *See* Order at P 14.

[8] *Id.*

[9] Dispatchable fast-start resources are generally eligible to set price within their dispatchable range when they are committed. Dispatchable fast-start resources are not common in New York and the few that exist are not situated in constrained load pockets.

modify the definition and eligibility criteria that define which resources are included in Online Fast-Start Pricing and to continue utilizing the current time-based fast-start requirements. Consistent with paragraph 14 of the Order, the NYISO anticipates that it would expand the scope of its Online Fast-Start Pricing beyond block-loaded gas turbines ("GTs") to include dispatchable resources that can start, synchronize to the grid and inject Energy in 30 minutes or less. The NYISO will revise its Online Fast-Start Pricing rules and software to relax the economic minimum operating limit of all dispatchable, fast-start resources by 100 percent for determining Locational Based Marginal Prices ("LBMPs") in the Day-Ahead Market ("DAM") and the Real-Time Market ("RTM").

The Security Constrained Unit Commitment ("SCUC") software,[10] Real-Time Commitment ("RTC") software,[11] and Real-Time Dispatch ("RTD")[12] software pricing passes, also referred to as the ideal passes, will model all eligible, fast-start resources as dispatchable between zero and their UOL to determine price. For dispatchable, fast-start resources, the ideal dispatch will relax minimum generation constraints to zero and model the resources as dispatchable between zero and the UOL. The ideal dispatch will also treat fast-start storage resources as dispatchable between zero and their maximum load level when charging or pumping.

The Order does not propose to change NYISO's start-up time requirement or other price setting eligibility criteria for fast-start resources. The NYISO expects that it will continue to require fast-start resources to be able to start, synchronize to the grid and inject Energy in 30

[10] SCUC is the NYISO's day-ahead economic commitment and scheduling software.

[11] RTC schedules Imports, Exports and internal (NYCA) resources every 15 minutes over a forward-looking 2.5 hour commitment window.

[12] RTD optimizes the NYISO's dispatch every 5 minutes over a forward-looking one hour dispatch window.

minutes or less.[13] The NYISO will also continue to require fast-start resources to have a minimum run time of one hour or less and to submit economic energy offers (*i.e.*, not self-schedule offers) into the market for evaluation. Consistent with the discussion in the fast-start pricing NOPR issued on December 15, 2016,[14] NYISO intends to exclude Generator offers to self-schedule Energy from the resource offers used to establish prices. In New York, all resources must submit flexible, economic energy offers to have their offers considered during price setting in the NYISO-administered markets.

### B. Reflecting the Commitment Costs of Fast-Start Resources in LBMPs

The Commission preliminarily concludes that NYISO should modify its tariffs and pricing logic to allow the start-up costs and minimum generation (no-load) costs of fast-start resources to be reflected in prices.[15] The NYISO anticipates that it would revise its tariffs and modify its Online Fast-Start Pricing logic to include fast-start resources' start-up costs and minimum generation costs in both the DAM and RTM price setting calculations. The NYISO plans to include the start-up cost component and minimum generation cost component of a fast-start resource offer as an adjustment to the resource's incremental energy cost curve in the market software's ideal dispatch.

The NYISO expects that it would amortize fast-start resources' start-up costs over each resource's physical minimum run time in both the DAM and RTM, starting with the period immediately following the resource's scheduled start-up. Therefore, fast-start resources' start-up costs will be amortized over one hour or less. For the NYISO, amortizing start-up costs over the

[13] *See* Order at FN 39 ("This proceeding does not propose to change NYISO's start-up time requirement for faststart resources.").

[14] *Fast-Start Pricing in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 81 Fed. Reg. 96,391 at P 46 (Dec. 30, 2016).

[15] Order at P 11.

intervals when the resource is actually needed would be extremely difficult when setting *ex ante* prices based on the co-optimization of energy, operating reserves, and regulation service and the forward-looking, forecasted commitment of units and Interchange schedules. Due to the flexible nature of fast-start resources, *i.e.*, 10- or 30-minute start-up and one hour or less minimum run time, RTC cannot predict with certainty how long a fast-start resource will remain online, beyond the binding commitment hour. Attempting to amortize start-up costs over the period that the resource is needed could fail to allow full cost recovery if RTC forecasted a resource running for two hours, but conditions change and the resource is dispatched off after its one hour minimum run time concludes.

The NYISO believes that it would include a fast-start resource's minimum generation cost component as an adjustment to the resource's incremental energy cost curve. The Online Fast-Start Pricing logic will use the minimum generation cost to determine the no-load cost and add the no-load cost component to the resource's incremental energy cost curve for every hour the dispatchable fast-start resource offers into the DAM or RTM. Therefore, a fast-start resource's minimum generation costs will be included in the LBMP calculations for all intervals it is the price-setting resource, even when the resource is running beyond its minimum run time, and would be included in the LBMP for any interval that a fast-start resource is the price-setting resource.

Adding the minimum generation cost and, when appropriate, the start-up cost to the incremental energy curve will allow the NYISO to incorporate start-up and minimum generation costs when calculating LBMPs.[16] The following tables illustrate how the NYISO's market

[16] This approach may result in incremental energy offers that exceed $2,000/MWh, which the NYISO will not use for purposes of setting market clearing prices or to determine economic merit-order dispatch. *See New York Independent System Operator, Inc.*, 161 FERC ¶61,151 at PP 19 and 20 (2017).

software will incorporate commitment costs into a fast-start resource's offer and how the adjusted offer could set LBMP.

A dispatchable, fast-start resource will submit an offer with minimum generation costs and MWs, start-up costs, and incremental costs components, such as the sample below.

**Sample Resource Offer**

| | | | |
|---|---|---|---|
| Upper Operating Level (MW) | 100 | Incremental Costs - Block 1 ($/MWh) | $ 30.00 |
| | | Incremental Level - Block 1 (MW) | 91 |
| Minimum Generation Costs ($/hr) | $ 4,000.00 | Incremental Costs - Block 2 ($/MWh) | $ 40.00 |
| Minimum Generation Level (MW) | 90 | Incremental Level - Block 2 (MW) | 95 |
| | | Incremental Costs - Block 3 ($/MWh) | $ 50.00 |
| Start-up Costs ($) | $ 400.00 | Incremental Level - Block 3 (MW) | 100 |
| Minimum Run Time (hr) | 0.5 | | |

The NYISO will determine how the minimum generation costs and start-up costs will be adjusted prior to adding these costs to the incremental energy cost curve.

**Determining Offer Adjustments**

| | | |
|---|---|---|
| No-Load Costs ($/hr) | $ 1,300.00 | [Minimum Generation Costs]-([Incremental Costs - Block 1]*[Minimum Generation Level]) |
| Amortized No-Load Costs ($/MWh) | $ 13.00 | ([Minimum Generation Costs]-([Incremental Costs - Block 1]*[Minimum Generation Level]))/[Upper Operating Limit] |
| Amortized Start-up Costs ($/MWh) | $ 8.00 | [Start-up Costs]/([Upper Operating Level]*[Minimum Run Time]) |

The NYISO will add the minimum generation cost adjustment to the no-load point and, when appropriate, the start-up cost to the incremental energy curve to calculate LBMPs.

| **Adjusted Offer used for Price Setting during Minimum Run Time Period** | | |
|---|---|---|
| Adjusted Incremental Costs - Block 1 ($/MWh) | $ 51.00 | [Incremental Costs - Block 1]+[Amortized No-Load Costs]+[Amortized Start-up Costs] |
| Incremental Level - Block 1 (MW) | 91 | |
| Adjusted Incremental Costs - Block 2 ($/MWh) | $ 61.00 | [Incremental Costs - Block 2]+[Amortized No-Load Costs]+[Amortized Start-up Costs] |
| Incremental Level - Block 2 (MW) | 95 | |
| Adjusted Incremental Costs - Block 3 ($/MWh) | $ 71.00 | [Incremental Costs - Block 3]+[Amortized No-Load Costs]+[Amortized Start-up Costs] |
| Incremental Level - Block 3 (MW) | 100 | |

| **Adjusted Offer used for Price Setting after Minimum Run Time Period** | | |
|---|---|---|
| Adjusted Incremental Costs - Block 1 ($/MWh) | $ 43.00 | [Incremental Costs - Block 1]+[Amortized No-Load Costs] |
| Incremental Level - Block 1 (MW) | 91 | |
| Adjusted Incremental Costs - Block 2 ($/MWh) | $ 53.00 | [Incremental Costs - Block 2]+[Amortized No-Load Costs] |
| Incremental Level - Block 2 (MW) | 95 | |
| Adjusted Incremental Costs - Block 3 ($/MWh) | $ 63.00 | [Incremental Costs - Block 2]+[Amortized No-Load Costs] |
| Incremental Level - Block 3 (MW) | 100 | |

### C. Aligning Fast-Start Resource Treatment in the Day-Ahead Market and Real-Time Markets

The NYISO expects to implement consistent Online Fast-Start Pricing rules and logic in its DAM and RTM, and supports using the same pricing and scheduling logic in its Day-Ahead commitment software and real-time commitment software (*i.e.*, its SCUC, RTC and RTD) to the

extent practicable, consistent with the NYISO's NOPR comments.[17] Inconsistency between the methods employed to establish prices and schedules in the Day-Ahead commitment software and the RTM software is likely to lead to unnecessary price volatility and presents the potential for inefficient arbitrage. Market Participants will have to determine whether more load should be procured day-ahead, or less generation sold day-ahead, in anticipation of prices that include different or additional costs in real time.

The NYISO SCUC software evaluates and schedules 10-minute and 30-minute start-up units in the DAM; however, these units are reevaluated for commitment in RTC to ensure that they are still economic to serve load. Units that can start in 30 minutes or less are not committed by the RTC software if they are no longer economic to serve load. Instead, these resources are required to buy out of their DAM schedule.

The Commission should allow the NYISO to implement consistent Online Fast-Start Pricing rules and logic in the DAM commitment software (*i.e.*, SCUC) and in the RTM commitment software (*i.e.*, RTC and RTD).

### D. Generation Fleet Response to Base Points and Instructions

Flexible resources may be dispatched down to make room for fast-start resources when fast-start resources' physically inflexible MWs are treated as flexible in the pricing pass. The commitment and dispatch software may have to dispatch flexible resources down during intervals when that resource's energy offer is below the LBMP to make room for the fast-start resource's block-loaded or minimum generation output. In this case, a profit maximizing dispatchable resource would see that its dispatch point was inconsistent with the price and might self-commit or attempt to chase the price if such occurrences were predictable. This behavior

[17] *See* NYISO NOPR Comments at pp. 18-19.

would reduce the flexibility of the fleet during periods when the grid is strained by high load and dependent on the operation of most flexible resources in the NYCA. Incentives and penalties may need to be revised if the new fast-start pricing logic results in significant volumes of dispatchable resources switching from flexible offers to self-scheduling, or regularly over-producing, or generally becoming less flexible (*e.g.*, by modifying ramp rates).

Today, the NYCA generation fleet responds well to NYISO-issued basepoints and generation instructions, as the Order recognizes.[18] The currently effective market rules are well-designed to incent resources to follow dispatch instructions and to prevent unscheduled overproduction. The following rules are key to ensuring appropriate market behavior. First, the NYISO does not permit resources to self-commit intra-hour in order to chase prices. Second, Generators that self-schedule are not eligible to receive guarantee payments or to set price. Third, a Generator producing above its basepoint is only compensated for overproduction that exceeds the basepoint by 3 percent or less of the Generator's UOL.[19] The NYISO's current fast-start pricing logic has not resulted in systematic over-generation or provided sufficient incentive for Generators to deviate from dispatch instructions to chase price. However, including dispatchable fast-start resources in the ideal dispatch could lead to larger divergences between resources' energy schedules and the energy clearing prices, particularly if the price-setting fast-start resource has a sizeable minimum generation block or as more dispatchable fast-start resources connect to the grid. This divergence could incent additional resources to self-schedule or over-generate.

[18] Order at P 16.

[19] *See* Services Tariff Section 2.3 Definition of "Compensable Overgeneration".

The NYISO anticipates that the existing rules will continue to provide adequate incentives to Generators and will otherwise prevent over-generation and/or basepoint deviations, and, therefore, does not intend to make any changes to address a potential increase in self-scheduling resources or over-generation at this time. The NYISO believes that it would be practicable to develop and implement the revised Online Fast-Start Pricing rules and software logic in accordance with the schedule discussed below. The NYISO will consider developing rules for new uninstructed deviation penalties or to provide lost opportunity cost payments in the future if it starts observing less fleet flexibility, more fleet self-scheduling, or increases in over-generation after the new fast-start pricing rules are implemented. The NYISO's ongoing Integrating Public Policy project is also evaluating how operating characteristics, such as availability, flexibility, and willingness to cycle, may need to be valued in the future to protect long-term grid stability as more intermittent resources connect to the system. If either effort identifies a need for new rules related to incentives to follow dispatch instructions, the rules would be developed through the NYISO's stakeholder process and filed with the Commission pursuant to Section 205 of the Federal Power Act.

### E. Offline Fast-Start Pricing

Offers from offline 10-minute, block-loaded GTs are currently eligible to set the real-time LBMP in the RTD. Offline 10-minute start resources can be started to resolve real-time needs that arise between RTC runs. LBMPs set by offline GTs include start-up costs. Each offline fast-start GT's incremental energy offer costs are adjusted to incorporate the GT's start-

up costs.[20] Combining start-up costs with energy offer costs allows LBMPs to reflect the offline GT's approximate commitment costs.

The NYISO's comments[21] supported the NOPR discussion to allow these offline faststart resources to set prices and to continue limiting offline pricing to resources that can start in ten minutes. The 10-minute start-up time aligns with the NYISO's RTD optimization that sets schedules and prices every five minutes for the next 5-minute interval and looks ahead approximately 60 minutes. Resources that require 30 minutes to start can be started by the next RTC run and do not belong in RTD's offline, fast-start pricing.

The Order suggests making "certain conforming changes to [NYISO's] offline pricing" without specifically identifying the changes or discussing how any potential changes relate to offline pricing in the RTD software.[22] At this time, the NYISO expects to continue only allowing offers from offline 10-minute, block-loaded or dispatchable GTs, including start-up costs, to be eligible to set the LBMP in the RTD process.

The NYISO is evaluating the effectiveness of its offline pricing in conjunction with two ongoing projects and respectfully requests that the Commission not direct any changes to its offline pricing at this time. As noted above, the NYISO's Integrating Public Policy project is considering how increased intermittent resource penetration will affect the New York Power System, market participant behavior, and market outcomes. Operating characteristics, such as availability, flexibility, and willingness to cycle, will be important to long-term grid stability as more intermittent resources connect to the system and will be studied throughout this project.

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[20] A resource with a 40 MW Upper Operating Limit, a $480 start-up cost, and a $100/MWh incremental cost will be represented as a $112/MWh resource for the purposes of offline pricing. The adjusted incremental cost = as offered incremental cost + (as offered start-up cost / as offered Upper Operating Limit).

[21] *See* NYISO NOPR Comments at pp. 16-18.

[22] Order at FN 40.

Another NYISO project, Constraint Specific Demand Curves, strives to improve Transmission Shortage Pricing practices. These improvements may obviate the need for continuing offline pricing practices as the more tailored Transmission Constraint Pricing approach results in more efficient transmission shortage prices in the same NYCA locations where most 10-minute GTs are located.

The NYISO is also concerned that expanding the use of offline pricing to other fast-start resources would create larger divergences in the physical dispatch power balance. Offline pricing includes the eligible resources in both the physical and ideal dispatches. Expanding the universe of fast-start resources eligible for offline pricing could lead to more frequent situations where prices are low but there are not enough physical resources online to meet load and reserve requirements. Specifically, the set of currently eligible, offline 10-minute, block-loaded GTs is the only set of resources that can be started by RTD and, therefore, the only set of resources that can be marginal outside of the RTC process. Expanding the NYISO's offline pricing practices would incorporate resources that RTD does not consider available to start, which the NYISO does not believe is an appropriate modification.

For the reasons discussed in this section, the NYISO respectfully requests that the Commission not direct any changes to offline pricing at this time. If changes are warranted in the future, the NYISO will work with stakeholders to develop appropriate rule changes for filing with the Commission pursuant to Section 205 of the Federal Power Act.

### F. Implementation Schedule

The NYISO respectfully requests that the Commission provide implementation flexibility in its final order for the NYISO to develop and implement the fast-start pricing changes discussed in this Initial Brief by the end of 2020. To achieve the changes discussed in the Order

and in this Initial Brief, the NYISO must develop additional pricing rules and software logic that are compatible with its *ex ante* pricing logic. The NYISO intends to work with its stakeholders to develop pricing rules and other necessary tariff revisions to accomplish the changes discussed in the Order, this Initial Brief, and a final order from the Commission in this proceeding. After the NYISO works with its stakeholders to develop appropriate pricing rules, significant additional time will be required to code, test and implement the software changes necessary to achieve compliance. The NYISO requests that the Commission allow submission of a compliance filing by the end of 2019 and the implementation of the changes by the end of 2020.[23]

The NYISO's existing project commitments significantly limit the software development and testing work that can commence before late 2019. The NYISO is in the second year of a three-year long effort to upgrade the hardware and software that runs its wholesale energy markets and monitors the reliability of the bulk electricity grid (the EMS/BMS Upgrade Project). The EMS is used by the system operators to monitor the reliable operation of the grid and for situational awareness. It includes applications that monitor load flows and perform contingency analyses, such as security monitor, state estimator, outage monitoring, and automatic generation control. The BMS is the suite of applications that comprise the SCUC, RTC and RTD software. This software is used to develop schedules and prices for the NYISO's Energy and Ancillary Services markets.

The EMS/BMS Upgrade Project will provide several important benefits. The new system is expected to have less downtime and greater reliability due to an improved high-

[23] The Order indicates that FERC expects to issue a final order in this proceeding in September 2018; therefore, the NYISO's proposed schedule allows for 12 months to develop tariff rules with stakeholders and approximately 12-15 months to develop, test and implement software changes.

availability and disaster recovery design. The new system will also be more secure, with enhanced cyber security protections. Functional enhancements will provide greater analytic and training capabilities for grid operators, schedulers, planners, and engineers. An updated user interface will provide enhanced visualization capabilities. Network model and database maintenance workflows will be reduced from hours to minutes. The new, improved EMS and BMS systems will provide a solid foundation for building the next generation of innovative market designs and operational capabilities to ensure a reliable future with continuous improvement and expanded consumer benefit in the years to come.

Making significant changes to the NYISO's implementation of its pricing rules at the same time the NYISO is developing and implementing the EMS/BMS Upgrade Project would add significant complications and risk to both the EMS/BMS Upgrade Project and the new project related to fast-start pricing. For these reasons, the NYISO must develop and implement fast-start pricing software changes in a manner that is compatible with NYISO's implementation of its ongoing EMS/BMS Upgrade Project.

Further, developing the market rules and software necessary to achieve compliance with the Commission's proposed fast-start resource pricing rules will require involvement by many of the same NYISO personnel that are heavily involved in completing the EMS/BMS upgrades. The NYISO expects to complete the EMS/BMS Upgrade Project with a production deployment in 2019. Due to the NYISO's ongoing EMS/BMS Upgrade Project, the NYISO would incur significant risk and expense if the Commission requires it to implement fast-start pricing changes before the end of 2020. The NYISO would work with its stakeholders in 2019 to develop pricing rules and proposed tariff revisions and would ideally start software development on a compliance solution in late 2019, with the earliest possible implementation date in late 2020.

In addition to the reliability considerations and complex logistical difficulties of adjusting the existing Online Fast-Start Pricing rules at the same time that the NYISO implements its ongoing EMS/BMS Upgrade Project, the NYISO respectfully submits that allowing its currently effective Online Fast-Start Pricing rules to remain in effect for an interim period (*i.e.*, approximately two years after a final order) while the NYISO develops and implements the improved fast-start pricing rules discussed herein would not be unjust and unreasonable. The NYISO's pricing logic has long incorporated the energy pricing impacts of fast-start, block-loaded[24] resources.[25] These existing rules, accepted by the Commission as recently as January 2017, apply in a limited number of pricing intervals, when one of the limited number of fast-start resources is the marginal unit, and are designed to accurately reflect the marginal cost to serve the next increment of load. Implementing the fast-start pricing changes discussed in the Order, in accordance with the timeframe discussed herein, presents a valid path forward to accommodate new dispatchable fast-start resources expected to connect to the electric grid in the future.

The Online Fast-Start Pricing logic currently considers the energy offers from block-loaded, fast-start resources that are capable of starting and reaching their UOL within 10- or 30-minutes, which covers almost all of the existing fast-start resources that will be eligible to set prices under the revised fast-start pricing logic.[26] The LBMP set by a block-loaded, fast-start resource that was committed and operated to serve load "truly reflects market conditions, as

[24] *See* Services Tariff § 2.6. Fixed Block Unit: A unit that, due to operational characteristics, can only be dispatched in one of two states: either turned completely off, or turned on and run at a fixed capacity level. Block-loaded, faststart resources are capable of only providing energy or non-synchronous reserves.

[25] *New York Indep. Sys. Operator, Inc.*, 95 FERC ¶ 61,121 (2001).

[26] While the NYISO expects dispatchable fast-start resources to connect to the grid in the future, the vast majority of the existing fast-start resources in New York are fixed block.

these fixed block units will run economically at the LBMP prices they establish."[27] Start-up costs are considered in the NYISO's economic commitment evaluation and are regularly recovered through market prices despite not being included in the LBMP determination. No-load costs are not included in the NYISO's fast-start evaluation or price setting because none of the existing eligible block-loaded, fast-start resources have no-load costs. The existing rules also align physical resource schedules with marginal clearing prices to the maximum extent possible.

The NYISO respectfully requests that the Commission allow the existing Online Fast-Start Pricing rules to remain in place until the new fast-start pricing rules and software logic can be implemented in late 2020.

### G. Refund Effective Date

Pursuant to FPA Section 206(b), the Order establishes a refund effective date of December 28, 2017, the date that the notice of this Section 206 proceeding was published in the Federal Register. The NYISO acknowledges that the establishment of this refund effective date is consistent with FPA Section 206(b) and Commission practice. At the same time, the NYISO does not interpret the establishment of a refund effective date as signifying that the NYISO will be expected to retroactively change market prices established between December 28, 2017 and the date that the NYISO ultimately implements the tariff changes discussed in this filing. Such an interpretation would conflict with established Commission policies favoring the preservation of settled market expectations and disfavoring retroactive changes to market auction results. The NYISO does not believe that the Commission intends to depart from these policies in this proceeding.[28] Accordingly, the NYISO will assume that the Commission's formal establishment

[27] *New York Indep. Sys. Operator, Inc.*, 95 FERC ¶ 61,121 at p. 4 (2001).

[28] *See Louisiana Public Service Commission, et al. v. Entergy Corporation, et al.*, 135 FERC ¶ 61,218 at P 25 (2011) (FERC "invok[es] our equitable discretion to not order refunds [under FPA Section 206(b)], notwithstanding our

of a refund effective date does not mean that it intends to require wholesale retroactive changes to market results in the future unless the Commission states otherwise in a final order in this proceeding.

A refund order requiring the NYISO to retroactively change market prices would compel the NYISO to rerun its markets for all impacted pricing intervals over an extended period of time. In cases that "involv[e] changes in market design, the Commission generally exercises its discretion and does not order refunds when doing so would require re-running a market."[29] The reason for this is that running organized markets is an exercise that imposes substantial burdens on an Independent System Operator or Regional Transmission Organization ("ISO/RTO"), and carries the risk of triggering additional challenges to the rerun methodology and results. Any market reruns would require making assumptions about how market participants would have acted under different market conditions than those that actually existed.[30] In addition, rerunning a market to reflect changed market parameters can influence or impact other market elements, and can interfere with the settled expectations of market participants. These burdens and risks almost always outweigh substantially the relatively meager benefits to be obtained by requiring an ISO/RTO to rerun its markets during specified intervals. In all, "the time, expense and complexity associated with attempting to recreate putative market outcomes may outweigh

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authority to do so"); *San Diego Gas & Electric Company v. Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator, California Power Exchange*, 93 FERC ¶ 61,121 (2000) ("Section 206 of the Federal Power Act authorizes refunds if the Commission finds existing rates to be unjust or unreasonable. However, that authority is limited to the period from the refund effective date through 15 months thereafter. The Commission has the discretion to determine that such refunds would not be in the public interest in individual circumstances.").

[29] *Ameren Services. Co., et al. v. Midwest Independent Transmission System Operator, Inc.*, 127 FERC ¶ 61,121 at P 157 (2009).

[30] *See New York Independent System Operator, Inc.*, 115 FERC ¶ 61,026 at P 55 (2006) ("any attempt to recalculate the market-clearing prices in this case would be mere conjecture as to what market participants' bidding behavior might have been under different circumstances, with little evidence to support such conjecture.").

whatever benefit might accrue to the market through this exercise."[31] It is for this reason that the Commission has concluded that, "although we cannot commit that we will never order a market rerun, a market rerun would be the exception, not the rule."[32]

## II. COMMUNICATIONS AND CORRESPONDENCE

All communications and correspondence concerning these Comments should be served as follows:


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## III. Service

The NYISO will send an electronic link to this filing to the official representative of each party to this proceeding, to the official representative of each of its customers, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the New Jersey Board of Public Utilities. In addition, the complete filing will be posted on the NYISO's website at www.nyiso.com.

[31] *California Independent System Operator Corporation*, 120 FERC ¶ 61,271 at P 25 (2007).

[32] *Id. See also New York Independent System Operator, Inc.*, 150 FERC ¶ 61,208 at P 32 (2015) (In determining whether to rerun the market as a remedy, "we weigh the complication and cost of resettling the market and the uncertainty such action could create for market participants against the benefit, if any, to be gained by such endeavor. In this case, we find that the expense, and complexity associated with attempting to re-create putative market outcomes -- as well as the uncertainty for market participants -- outweighs whatever benefit might accrue to the market through this exercise.").

## IV. Conclusion

For the reasons set forth herein, the NYISO respectfully requests that the Commission issue a compliance order to the NYISO consistent with the approach and schedule described in this Initial Brief.

Respectfully submitted,

*/s/ James H. Sweeney*

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Dated: February 12, 2018

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**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding in accordance with the requirements of Rule 2010 of the Rules of Practice and Procedure, 18 C.F.R. §385.2010.

Dated at Rensselaer, NY this 12th day of February 2018.

*/s/ Joy A. Zimberlin*

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