NEW YORK INDEPENDENT SYSTEM OPERATOR

10 Krey Boulevard Rensselaer, NY 12144

February 8, 2013

By Electronic Delivery

Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: *New York Independent System Operator, Inc.*, Docket No. ER13-___-000; Proposed Tariff Amendments to Revise Energy Price Calculations During Periods of Scarcity and Request for Waiver

Dear Secretary Bose:

In accordance with Section 205 of the Federal Power Act and Part 35 of the Commission's regulations, the New York Independent System Operator, Inc. ("NYISO") respectfully submits proposed amendments to its Market Administration and Control Area Services Tariff ("Services Tariff") to modify the calculation of Locational Based Marginal Pricing ("LBMPs") during periods of scarcity when the NYISO has called upon Market Participants that have provided Special Case Resources ("SCR") and those enrolled in the Emergency Demand Response Program ("EDRP") to reduce their Load to manage reliability issues. The NYISO's Market Monitoring Unit, Potomac Economics, recommended that the NYISO modify the LBMP calculation so that it better reflects scarcity conditions under such circumstances. These proposed tariff amendments have been approved unanimously, with abstentions, by the NYISO's Management Committee.

I. Documents Submitted

1. This filing letter;

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

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

II. Background

The NYISO Services Tariff currently requires LBMPs, under certain circumstances, to reflect either the offer price of SCRs called, or $500, when SCR and EDRP Resources are called upon to reduce Load.[1] The NYISO's Market Monitoring Unit, Potomac Economics, supports the eligibility of Demand Side Resources, participating as Special Case Resources or in the Emergency Demand Response Program ("SCR / EDRP Resources"), to set LBMPs when they are called upon to resolve reliability issues pursuant to the NYISO's Services Tariff and ISO Procedures.[2] Potomac Economics has recommended, however, that the NYISO work with its stakeholders to develop new pricing provisions that would enable SCR and EDRP Resources to set LBMPs under a wider range of circumstances.[3]

In making these recommendations, Potomac Economics cited to real-time prices on July 21, 2011, that, notwithstanding the NYISO's call for SCR and EDRP Resources to reduce Load, were "far below" those levels that would have appropriately reflected the costs of using SCR and EDRP Resources to manage reliability.[4] According to Potomac:

> Prices that occur under shortage conditions are an important contributor to efficient longterm price signals. Efficient prices also provide suppliers and demand response resources with incentives to respond during real-time shortages. Shortage conditions occur most frequently when demand reaches extremely high levels, so the higher peaking conditions in 2011 led to more frequent shortages than in previous years.[5]

III. Proposed Tariff Revisions and Justification

The current Services Tariff requires that LBMPs reflect the cost of SCR and EDRP Resources (known as 'scarcity pricing') when such Resources are called upon to resolve reliability issues and, but for their Load reduction, the NYISO would have experienced a regional or statewide shortage in certain Operating Reserves products.[6] Under the existing Tariff, scarcity pricing is used to calculate LBMPs for all buses and Load Zones East of Central-

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[1] *See* Services Tariff Section 17.1.2 for a description of the circumstances under which scarcity pricing is currently required. S CR Resources provide the NYISO with a Minimum Payment Nomination or Bid, capped at $500. Services Tariff Section 5.12.11.1. EDRP Resources do not provide the NYISO with a Bid but are paid, pursuant to Services Tariff Section (Attachment G) the higher of the zonal real-time LBMP or $500 for each MW of verified Load reduction. Services Tariff Section 22.10.2.1

[2] *2011 State Of The Market Report For The New York ISO Markets*, David B. Patton, Ph.D., Pallas LeeVanSchaick, Ph.D., Jie Chen, Ph.D. ("2011 SOM"), p. A-122

[3] 2011 SOM pp. 50-51.

[4] 2011 SOM p. iv

[5] 2011 SOM p. 47

[6] Services Tariff Section 17.1.2

East[7] if SCR / EDRP Resources were called only in the area East of Central-East and, but for their Load Reduction, Available Reserves East of Central-East would have been insufficient to meet the Eastern 10-minute Operating Reserves requirement.[8] If SCR / EDRP Resources are called in Load Zones other than those East of Central-East, or if they are called statewide, scarcity pricing is used to calculate LBMPs statewide if, but for the Load Reduction provided by the SCR / EDRP Resources, statewide Available Reserves would have been insufficient to meet the total 30-minute Operating Reserves requirement.[9]

Thus, only a shortage in Available Reserves as measured across a broad region will allow the NYISO to reflect in LBMPs the Bid-cost of reliability-necessary SCR Resources. Scarcity Pricing is currently not triggered for reliability situations requiring localized Load reductions in order to maintain reliable service as long as Available Reserves either East of Central East or statewide are sufficient to maintain specified Operating Reserves requirements.

As occurred on July 21, 2011, prices can remain well below those levels that would have appropriately reflected the costs of using SCR and EDRP Resources to manage reliability issues because Available Reserves remained sufficient to meet the statewide total 30-Minute Reserves requirement and the 10-Minute Eastern Reserves requirement. This example highlights the insufficiency in the existing scarcity pricing rules pursuant to which available reserves over a broad region may mask a more localized scarcity where, but for the SCR / EDRP Resources, available reserves would have been insufficient.

As Potomac Economics has indicated, a properly calculated LBMP will send efficient price signals providing suppliers and demand response resources with incentives to respond appropriately both in the short-term, by reducing demand when prices are high, and in the longterm by properly informing investors of locations where additional capacity would be most valuable. This is no less true for shortages that may be more isolated in scope than those regional circumstances for which the Tariff currently reflects scarcity pricing. In addition, Available Reserves against which scarcity is measured should properly reflect Resources actually available to the NYISO's commitment and pricing systems. Therefore, the NYISO is proposing the following Tariff revisions to ensure that scarcity pricing is invoked when localized as well as broader scarcity conditions occur.

A. Amend the Definition of Available Reserves

The NYISO proposes to amend the definition of "Available Reserves" as follows:

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[7] The term "East of Central-East" is defined as **"**An electrical area comprised of Load Zones F, G, H, I, J, and K, as identified in the ISO Procedures." Services Tariff Section 2.5

[8] *Id. See also*: the term "Available Reserves" which is currently defined as: [T]he capability of all Suppliers that submit Incremental Energy Bids to provide Spinning Reserves, Non-Synchronized 10-Minute Reserves, and 30- Minute Reserves in that interval and in the relevant location, and the quantity of recallable External ICAP Energy sales in that interval. Services Tariff Section 2.1.

[9] Services Tariff Section 17.1.2

> **Available Reserves:** For purposes of determining the Real-Time Locational Based Marginal Price in any Real-Time Dispatch interval: the capability of all Suppliers that submit Incremental Energy Bids to provide Spinning Reserves, Non-Synchronized 10-Minute Reserves, and/or 30-Minute Reserves to provide Operating Reserves in that interval and in the relevant location, minus the quantity of recallable External ICAP Energy sales scheduled Operating Reserves in that interval.

These amendments will better align the definition of Available Reserves for purposes of scarcity pricing with the manner in which the NYISO's market market-based scheduling and pricing systems determine the capacity available to meet Operating Reserves requirements. The NYISO's market systems schedule Operating Reserves only on internal Resources and do not include MWs of External Energy sales from Resources that have sold their Installed Capacity to the NYCA in those commitment determinations. While recallable Exports may be available via execution of certain operating procedures, they are not factored into the scheduling and pricing of Operating Reserves or any other market-based product. Thus, removing recallable Exports from the definition of Available Reserves will improve the alignment of scarcity pricing with the NYISO's market market-based scheduling and pricing systems.

The proposed revisions to the definition of Available Reserves also exclude capacity already scheduled for Operating Reserves. This exclusion is currently embedded in the formulas for Scarcity Pricing Rules A and B, formulas the NYISO is proposing to delete (as discussed in Section "B" below).[10] Since the NYISO intends to continue this exclusion when identifying scarcity for pricing purposes, it is adding the exclusion to the definition of Available Reserves.

B. Amend the Scarcity Pricing Calculation

The NYISO is also proposing a series of amendments to Section 17.1 2, the Real-Time LBMP Calculation Procedures.[11] The NYISO proposes to use only one scarcity pricing calculation and therefore is proposing to delete the scarcity pricing calculation found in Section 17.1.2.3 (Scarcity Pricing Rule B). The NYISO also proposes to delete the table appearing in Section 17.1.2 which describes the circumstances under which the NYISO would use either Scarcity Pricing Rule A or Scarcity Pricing Rule B. The NYISO proposes to amend Section 17.1.2 to indicate it will use the new scarcity pricing formula in Section 17.1.2.2 for any interval:

> [I]n which EDRP/SCR Resources have been called in one or more Load Zones due to a reliability need and the aggregate of Available Reserves in the Load Zone(s) in which the reliability need was identified are less than the number of EDRP/SCR MWs called for that event.

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[10] *See* Sections 17.1.2.2 and 17.1.2.3 where MWs as defined in the term "RREQNYCA" in Scarcity Pricing Rule 'A' and "RREQEAST" in Scarcity Pricing Rule 'B' are excluded when comparing the MWs of Available Reserves to the MWs of SCR / EDRP resources called.

[11] The NYISO is also proposing a ministerial change to the Section numbers listed in the opening sentence of 17.1.2 to properly reference the Sections currently describing the real-time pricing calculations.

The NYISO proposes to rename Section 17.1.2.2 as the "Scarcity Pricing Rule" and to significantly revise the calculation methodology currently labeled Scarcity Pricing Rule A in Section 17.1.2.2.1. Pursuant to the NYISO's proposal, when scarcity as proposed in Section 17.1.2 exists but the reliability need that required the activation of SCR / EDRP Resources did not occur in Load Zone E (where the Reference, or Marcy, Bus is located) the system marginal price at the Reference Bus will be set as it is under non-scarcity conditions, pursuant to Section 17.1.2.1 (the Real-Time Dispatch or "RTD").

If a reliability need, requiring the activation of SCR / EDRP Resources, was located in Load Zone E, the system marginal price at the Reference Bus will be set to the maximum Minimum Payment Nomination available to SCR Resources - $500.[12] Existing system marginal scarcity pricing calculations at the Reference Bus are proposed for deletion.

Using the maximum Minimum Payment Nomination of $500 is appropriate. Fewer than 40 MWs of SCR resources employed a Minimum Payment Nomination of less than $500 in 2011, and the number of MWs employing such an amount has been shrinking since then. Setting the system marginal price at the Reference Bus to $500 when scarcity conditions materialize in Zone E also serves to signal the market of the marginal cost of resolving scarcity conditions.

The Marginal Losses Component of LBMP at each NYCA location will continue to be set as it is under the existing tariff - that is as the product of the system marginal price at the Reference Bus set pursuant to RTD, which uses the processes described in Section 17.1.2.1, and a quantity equal to the delivery factor produced by RTD for that location minus one as defined in Section 17.1.1.

The calculation of the congestion component of LBMPs when scarcity conditions have arisen will depend on whether the reliability need that required the activation of SCR / EDRP Resources occurred in the Load Zone in which the bus to be priced is located. The Congestion Component of the LBMP at each location in the Load Zone(s), in which the reliability need was identified, shall be set to the maximum Minimum Payment Nomination minus the system marginal price at the Reference Bus calculated pursuant to Section 17.1.2.2.1 The Congestion Component of the LBMP at all other locations shall be set equal to Congestion Component for that location produced by RTD, minus the result of subtracting: i) the system marginal price at the Reference Bus produced by RTD from ii) the system marginal price at the Reference Bus calculated pursuant to this Section 17.1.2.2.1.

In addition, the NYISO is proposing clarifications to Section 17.1.1.2.2, including correcting its numbering to Section 17.1.2.2.2. This Section ensures that scarcity pricing will not be used to set the LBMP at any location to a value that is less than the LBMP produced by RTD, pursuant to Section 17.1.2.1. The proposed revisions are clarifying in nature. The Marginal Losses Component is calculated as it is today but the citation to the LBMP at the Reference Bus in its description is clarified by referring to the system marginal price at the Reference Bus

[12] *See*: The definition of the term "Minimum Payment Nomination" in Services Tariff Section 2.13

produced by RTD. This mirrors the description of the calculation of the Marginal Losses Component in Section 17.1.2.2.1 and is not a substantive change.

C. Amend Section 5.12.11.1

The NYISO is also proposing a ministerial revision to Services Tariff Section 5.12.11.1(i) which describes a forecast reserve shortage as one circumstance pursuant to which Special Case Resources may be called and paid. Since the term *forecast reserve shortage* is not a defined term, the NYISO proposes to remove its erroneous capitalization from the Tariff.

D. Conform Scarcity Pricing Language in Rate Schedules 3 and 4 and Section 4.4.2.7 to changes proposed for Section 17.1.2.

Rate Schedules 3 (Section 15.3) and 4 (Section 15.4), the descriptions of the Regulation Service and Operating Reserves Markets in the NYISO, currently require alternate clearing price calculations during periods when the scarcity pricing provisions of Section 17.1.2.2 are applicable. These clearing price calculations need to be revised to conform to the changes being proposed to scarcity pricing provisions in Section 17.1.2.2.

Specifically, the NYISO proposes to revise the reference to scarcity pricing rules in Section 15.3.5.2 to reflect the revisions being proposed for the scarcity pricing rule in Section 17.1.2.2. As well, the NYISO proposes to update the description of the scarcity pricing recalculation for the Regulation Service clearing price by referring only to the highest Bid and Lost Opportunity Cost of any Regulation Supplier. At the moment, Suppliers submit an Availability Bid for Regulation Service; but with the introduction of the Regulation Service redesign pursuant to Order No. 755, Suppliers will submit two Bids.[13] The recalculation spoken of in this paragraph will consider the highest submitted Bid and Lost Opportunity Cost - and this proposed simplification will avoid confusion during this transition period.

In addition, the NYISO proposes revisions to Section 15.4.6.2.1 which section describes the calculation of real-time Operating Reserves clearing prices during scarcity conditions. References to Section 17.1.2.2 will be revised to reflect changes being proposed herein. In addition, the changes in Section 17.1.2.2, which eliminate the differentiation between scarcity conditions arising East of Central East or statewide, in favor of a single scarcity pricing formula, allow the NYISO to significantly simplify the calculation of Operating Reserves clearing prices during scarcity conditions. Each Operating Reserve product will be priced using the same rule when the scarcity pricing rule of Section 17.1.2.2 is applicable. The clearing price for each product will be calculated by setting the shadow price of each Operating Reserve product to the higher of: (i) the highest Lost Opportunity Cost of any Operating Reserves provider scheduled by RTD to provide that Operating Reserve product;[14] or (ii) the relevant Shadow Price calculated under Section 15.4.6.1 of this Rate Schedule for that Operating Reserve product.

[13] Final revisions to the NYISO's proposed redesign are pending with the Commission in Docket No. ER12-1653-000.

[14] Real-time Reserves Availability Bids are set to zero, pursuant to Section 15.4.3.1

The use of a single pricing formula for all Operating Reserves products eliminates the need to price each reserves product separately depending on the location of the scarcity condition or to enforce the reserves cascading pricing rule.[15] Therefore, existing language that describes a separate calculation for each Operating Reserve product can be deleted.

Conforming amendments are also proposed for Section 4.4.2.7, the Services Tariff provision that introduces scarcity pricing for Ancillary Services by reference to Rate Schedules 3 and 4.

IV. Effective Date

The NYISO proposes that these changes become effective on a date to be specified with a two-week notice to FERC and the NYISO's Market Participants which notice is expected to be issued between June 12, 2013 and June 26, 2013. A major software installation, of which the changes in scarcity pricing are a part, is currently scheduled for June 12. Schedules are subject to change, however. The code changes bundled into the planned June installation are part of a large overall integrated software solution and require a fully integrated set of testing and regression testing. Extensive testing allows the NYISO to ensure its market and settlement results are of the highest quality while minimizing errors within these processes.

If the testing protocols expose flaws, the resolution of which takes additional time, or if the electric grid is exposed to system conditions that make any revisions to the scheduling and dispatch system a risk to reliability, the installation will be delayed. Therefore, the NYISO proposes to provide the FERC and its Market Participants with a two-week notice of the effective date for these scarcity pricing revisions which actual effective date is expected to fall between June 12 and June 26, 2013.[16]

The NYISO also respectfully requests that the Commission waive the Application of Rule 35.3 and allow the proposed Tariff revisions to go into effect more than 120 days from the date of this filing.[17] The NYISO has made this filing early to allow the Commission an opportunity to issue an order well before the proposed effective date. A decision more than 60 days in advance of the proposed effective date should allow the NYISO to pursue any Commission-directed adjustments to the proposal in time for the software installation window which starts June 12, 2013. The NYISO and its Market Participants desire to effectuate scarcity pricing revisions as soon as possible, recognizing the software installation protocols described above.

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[15] This rule prevents the setting of a clearing price for lower quality reserves higher than the clearing price for higher quality reserves. It is enforced directly in the pricing software.

[16] Accordingly, the eTariff system will show the effective date / year for these proposed revisions as 12/31/9998 in recognition that a two-week notice indicating the precise effective date needs to be filed.

[17] 18 C.F.R. §35.3

V. Requisite Stakeholder Approval

These amendments were approved by the NYISO Management Committee on December 18, 2012 unanimously with abstentions and by the NYISO's Board of Directors on February 12, 2013.

VI. Communications and Correspondence

All communications and service in this proceeding should be directed to:

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VII. Service

The NYISO will send an electronic link to this filing 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.

VIII. Conclusion

Wherefore, for the foregoing reasons, the New York Independent System Operator, Inc. respectfully requests that the Commission accept for filing the proposed Tariff revisions that are attached hereto with an effective date to be specified with a two-week notice which is expected to be issued between June 12, 2013 and June 26, 2013.

Respectfully submitted,

/s/Mollie Lampi

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