UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.	)	**Docket Nos. ER12-1653-000,**
	)	**RM11-7-000, AD10-11-000**

ANSWER OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC. TO COMMENTS

Pursuant to Rule 213 of the Commission's Rules of Practice and Procedure,[1] the New Independent York System Operator, Inc. ("NYISO") respectfully answers certain of the comments filed by Beacon Power LLC ("Beacon")[2] and the New York Transmission Owners ("NYTOs")[3] in the above captioned proceeding.[4] Both sets of comments address the NYISO's April 30, 2012 filing of tariff revisions[5] to comply with the Federal Energy Regulatory Commission's ("Commission's") directives in Order No. 755.[6] The NYISO's Compliance Filing proposed a redesign of New York's Regulation Service market to add a settlement for Regulation Movement and to establish market prices for Regulation Capacity and Regulation

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[1] 18 C.F.R. § 385.213 (a)(3)

[2] *New York Independent System Operator, Inc.*, Docket No. ER12-1653, Motion to Intervene and Comments of Beacon Power LLC ("Comments").

[3] *New York Independent System Operator, Inc.*, Docket No. ER12-1653, Motion to Intervene and Comments of the New York Transmission Owners ("NYTO Comments")

[4] The NYISO also respectfully requests the Commission accept these comments although they are being filed one day out of time.

[5] *New York Independent System Operator, Inc.*, Docket ER12-1653, Letter to Secretary Bose from Mollie Lampi, April 30, 2012, ("Compliance Filing")

[6] *Frequency Regulation Compensation in the Organized Wholesale Power Markets*, Order No. 755, 137 FERC 61,064 (2011), *reh'g denied,* Order No. 755-A, 138 FERC ¶ 61,123 (2011) ("Order No. 755")

Movement. The NYISO proposal also included a Regulation Movement Multiplier for use in scheduling regulation suppliers and a Regulation Movement Bid Restriction to avoid potentially volatile Regulation Movement market prices and settlements.

Beacon, a 20 MW flywheel, Limited Energy Storage Resource, has been selling Regulation Service in the NYISO market since 2011. Beacon's proposed revisions are not required by Order 755. They fail to account for regional differences between the NYISO and PJM market designs and are inconsistent with the NYISO's underlying market design. Beacon's proposal to sunset the Bid Restriction is unworkable and would introduce significant market uncertainty as the one-year anniversary of the Bid Restriction approached. The NYISO also disagrees with Beacon's statement that NYISO's Compliance Filing fails to comply with Order 755's directives. The NYTO's request that the Commission impose a directed review of the market design proposed in this docket and require a one-year report regarding such review is unnecessary and disruptive of established processes that will accomplish the same goal.

The NYISO explains below why the various changes and suggestions proposed by Beacon and the NYTOs are without merit and should be rejected.

I. ANSWER

A. The Commission Should Not Revise the NYISO's Methodology for Setting the Regulation Movement and Regulation Capacity Market Prices

1. The NYISO's Pricing Methodology is Fully Compliant with Order 755 Principles

The Commission should reject Beacon's assertion that the NYISO's Regulation Movement Market Price coupled with its Bid Protection Cost Guarantees ("BPCGs") provide a level of compensation that violates Order 755's requirement that regulating resources be paid for the quantity of service provided when they accurately follow dispatch signals.[7] Beacon complains that it will not be paid for service provided during any interval in which the NYISO's market-based price for Regulation Movement is zero ($0/MW). Beacon also argues that payment of a Bid Production Cost Guarantee ("BPCG") "is not sufficient to cover its bids for the day."[8]

Beacon is not asserting that the NYISO's pricing methodology fails to produce a market-based price. Indeed, Beacon supports use of market-based Prices for Regulation Movement as:

> [E]nsur[ing] that fast-ramping regulation resources are justly and reasonably compensated for the additional frequency that they provide to the grid and will remedy the undue discrimination that exists today on NYISO's regulation market.[9]

Rather, Beacon is complaining that the market-based Regulation Movement price may, in some intervals, be less than its bid and the BPCG is inadequate to provide just and reasonable compensation.[10]

The NYISO's pricing proposal is fully compliant with FERC Order 755. It provides for market-based prices for both Regulation Capacity and Regulation Movement that send efficient price signals. As the Commission noted, "efficient price signals will . . . incent the efficient mix of resources to enter the market, thereby leading to lower long-run costs to consumers."[11] The NYISO's Regulation Movement and Capacity Prices fully comply with the Commission's Order 755 requirements in that they:

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[7] Comments p. 10

[8] *Id.*

[9] Comments p. 5

[10] Comments p. 10.

[11] Order No. 755 ¶ 72

1) are paid uniformly to all resources scheduled during the same settlement period;[12]

2) encourage Market Participants to accurately bid their capacity and movement costs to provide service in order to ensure that they get scheduled;[13] and

3) provide an efficient price signal by best reflecting market system conditions and the need for frequency regulation.[14]

The NYISO proposal to extend its long-standing BPCG to include as-bid costs for Regulation Capacity and Movement would appropriately guarantee just and reasonable compensation when a regulation supplier's Bids for these products exceed the market-based price. Paying a BPCG ensures that resources are fully compensated to their bid-in costs for the services they are directed to supply. This treatment encourages resources to bid their true cost of service for these products. The Commission-accepted BPCG methodology has, since the beginning of the NYISO's market operations, ensured appropriate, just, and reasonable compensation in the Energy and Operating Reserves markets under exactly these conditions.[15] Beacon has provided no support for its claim that the BPCG will not do the same in the Regulation Service market. The Commission should reject Beacon's claim that the NYISO's pricing proposal will not provide just and reasonable compensation for regulation suppliers.

2. Price-Setting Designs Adopted For the PJM and NYISO Regions Reflect Regional Differences and Are Not Interchangeable

Beacon argues that the NYISO should abandon its proposal to use the marginal resource's Regulation Movement Bid for establishing the Regulation Movement Market Price as it may produce $0/MW Regulation Movement Market Prices in some instances. Instead, Beacon

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[12] *Id.* ¶ 131

[13] *Id.* ¶ 128

[14] *Id*.

[15] *New York Independent System Operator, Inc.*, 86 FERC 61,062 (1999)

urges that the NYISO borrow the PJM approach and use the highest Regulation Movement Bid provided by any scheduled resource in the pricing interval.[16] As mentioned, Beacon is not arguing that a $0 price is not market-based, or that it would not reflect market conditions.

Beacon simply dislikes $0 prices for the products it provides and believes such a price is less likely under the PJM pricing method.

PJM and the NYISO have each responded to Order 755 in a manner that is compatible with their existing market designs and scheduling and pricing software systems. Each of the two designs is compliant with Order 755, but that does not mean their parts are interchangeable. An efficient market design is possible only through the complimentary and collective interaction of the sum of the individual aspects.

As described in the NYISO's Compliance Filing, suppliers will bid their costs to provide Regulation Capacity and Regulation Movement separately. The NYISO will add each supplier's Regulation Capacity Bid to the product of its Regulation Movement Bid and the Regulation Movement Multiplier ("RMM") and enter the resulting single sum for each bidder into its scheduling and pricing software. The scheduling software will choose the set of least-cost resources necessary to solve its regulation constraint and produce a shadow price. In each pricing interval, the Regulation Movement Market Price will be the Regulation Movement Bid of the marginal regulation resource and the Regulation Capacity Market Price will be the shadow price for the NYISO's Regulation Service constraint minus the product of the Regulation Movement Market Price and the RMM. This price setting methodology is necessary to ensure

[16] Comments p. 11

that the lost opportunity cost of the marginal regulation resource will be appropriately reflected in the Regulation Capacity Market Price.[17]

The NYISO's proposal utilizes an *ex ante* pricing methodology to establish a marketbased price that reflects the system conditions to which the scheduling and pricing software responded when identifying the marginal regulation supplier. The *ex ante* pricing methodology is fundamental to the NYISO market design and, in this instance, will produce a price that accurately signals the projected cost of the next MW of Regulation Capacity. The *ex ante* pricing method is used in the NYISO's Energy markets, where the Bid of the marginal resource, as prospectively identified by the scheduling and pricing software, sets the market price for the dispatch interval. As identified, the marginal regulation resource is the incremental resource needed to meet the regulation capacity requirement.

Using this methodology in designing the Commission-ordered changes called for in Order No. 755 ensures that these revisions will be compatible and consistent with the NYISO's Energy and Operating Reserves markets. As the NYISO's Compliance Filing discussed, the NYISO's price-setting proposal was the only one the NYISO could identify which would apply market-based pricing to both the movement and capacity components of the regulation market and meet the Order No. 755's requirements and timetable for implementation by using existing scheduling and pricing logic.[18]

PJM does not base its market-based regulation prices on the bids of its marginal resources, nor does it use *ex ante* pricing. Rather, it uses *ex post* pricing and sets regulation prices based on the capability and movement offers of its resources as adjusted by a benefits

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[17] Compliance Filing p. 6

[18] Compliance Filing p. 2

factor and a historical performance factor.[19] Prices for regulation services in PJM reflect the relative value of the marginal resource to the system and not the as-bid cost of the marginal resource.

The NYISO does not adjust Bids to reflect historical performance or value to the system before using them to establish market-based prices. The NYISO reflects supplier performance by adjusting final supplier settlements.[20] It may be appropriate to reflect the value of regulation performance in the PJM system by using the highest as-adjusted performance bid in the stack of PJM scheduled suppliers to price it. However, using the highest cost-based movement bid in the stack of New York scheduled suppliers would not be consistent with NYISO's *ex ante* pricing method as the movement Bid of the marginal resource would not be used in setting the movement price. Neither would pricing under such a methodology be consistent with the manner in which the NYISO prices Energy or Operating Reserves.

In addition, inserting the design change proposed by Beacon could also introduce potential gaming opportunities that would need to be explored to assess its impact on other aspects of the new regulation market design before being implemented.

The Commission has recognized that the same pricing methodology may not be appropriate in every ISO or RTO, given the regional differences by which they operate their markets. The Commission has also rejected requests that it mandate a specific method by which ISOs or RTOs specify their market-clearing algorithms that determine dispatch.[21] It has agreed with the commenters to the Final Rule that there could be more than one efficient way to

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[19] 139 FERC 61,130 ¶14 (2012)

[20] *See*: Market Administration and Control Area Services Tariff, Rate Schedule 3A where energy suppliers are penalized for being off-dispatch

[21] Order No. 755 ¶ 130

compensate performance and that there is no compelling evidence that one method will work best in all RTOs and ISOs.[22] Moreover, the Commission has recognized that two-part bidding solutions do not present insignificant problems for ISOs/RTOs to implement within their existing market designs and software systems. The Commission should accept the NYISO pricing proposal as compliant with Order 755 and appropriate to its existing market design.

3. Fundamental Changes to the NYISO Proposal will Delay Implementation

The NYISO has been diligently pursuing the software revisions necessary to allow it to timely comply with Order 755 in October, 2012. This work has been proceeding concurrently with the software revisions it is developing to meet the Commission requirement to implement Market to Market Coordination with PJM.[23] Both new designs will be quality tested at the same time. The NYISO may not have sufficient time to finalize development and re-test market designs if the Commission orders the NYISO to make market design revisions before October. In addition, a change in design for the regulation market would likely also delay implementation of Market to Market Coordination which is proposed for activation in January, 2013.[24]

The NYISO's two-part bidding-based scheduling and dispatch process for regulation service meets all the Commission's design requirements, while also allowing the NYISO to implement it by October as required. The Commission should adopt the NYISO proposal without change. As mentioned in the Compliance Filing, stakeholders have indicated an interest

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[22] *Id.* ¶ 132

[23] *See*: *New York Independent System Operator, Inc. and PJM Interconnection, L.L.C.*, Docket No. ER12-718-___; Second Jointly Submitted Market-to Market Coordination Compliance Filing and Request for Extension of Time to Implement Market-to-Market Coordination filed May 1, 2012.

[24] *Id.*

in continuing to examine the design for this market and the NYISO may find improvement opportunities which would be filed with the Commission in the future.

B. The Commission Should Reject Beacon's Request to Sunset the Bid Restriction as Unworkable and Unreasonable

The NYISO has proposed a Regulation Movement Bid Restriction to guard against unnecessary price volatility in the Regulation Service Market while this new market design is introduced, Market Participants engage in price discovery, and accurate reference levels are established. The NYISO described the Bid Restriction as temporary in its filing letter and included, in the proposed revision to its Market Administration and Control Area Services Tariff, Section 21.5.3, language requiring the NYISO's Market Monitoring Unit ("MMU") to perform an annual review as to its continued necessity. Dissatisfied with this approach, Beacon requests an automatic termination of the Bid Restriction after one year. Beacon is essentially asking the Commission to agree, *at this time*, that the Bid Restriction will not be necessary one year from now.

Yet Beacon acknowledges that the Bid Restriction may continue to be necessary after the first year and agrees that an MMU annual review is necessary to determine whether it remains necessary or not. Beacon agrees the Bid Restriction should continue if the annual review determines it is necessary.[25] Thus, Beacon has not framed its proposal as a unilateral expiration, but rather that the Bid Restriction should expire unless shown to remain necessary.

Should the Commission accept Beacon's suggestion, however, the MMU would have to begin its analysis on whether the Bid Restriction should continue within the next few months to avoid its automatic expiration in case system conditions warranted extension and a Commission Order was necessary. In order to timely avoid automatic expiration of the Bid Restriction, the

[25] Comments p. 13

MMU would need to deliver its final recommendation to the NYISO and its stakeholders no later than April, 2013 to allow enough time for the NYISO stakeholders and Board to submit a proposed tariff revision to continue the Bid Restriction, if necessary, and for the Commission to act on the filing under Section 205 of the FPA.[26] This would give the MMU between five and six months of data, if that, on which to base its recommendation. Such a brief period may actually increase the chances that the MMU's evaluation would indicate the need for the Bid Restriction to continue. Given this process, the Beacon proposal would also introduce significant market uncertainty as the October 2013 automatic expiration date approached.

It is entirely reasonable and consistent with Commission precedent for it to accept a Bid Restriction as necessary to guard against price volatility in a brand new market. The Bid Restriction is just and reasonable, as a temporary measure, even without the sunset provision. The Commission should avoid the market uncertainty that would accompany a sunset provision and accept the NYISO's proposed Bid Restriction as filed.

Moreover, Beacon's arguments that the Bid Restriction will prevent adequate cost recovery are pre-mature. As the NYISO explained, it has not yet determined the Bid Restriction amount and will provide it in a filing to the Commission at least 60 days prior to the effective date of its compliance tariff revisions.

B. The Commission Should not Direct a Specialized Review of the Market Design Proposed Here

The New York Transmission Owners are dissatisfied with the NYISO's commitment, as noted in its Compliance Filing, that it is prepared to continue discussing this market design with its stakeholders and to evaluate potential improvements as part of the annual budget and

[26] The NYISO stakeholder process typically takes four months which, when added to the Commission's 60-day time period for deciding Section 205 filings, means the NYISO should plan on six months to put into place a tariff revision.

prioritization process. The New York Transmission Owners ask the Commission to impose a stronger commitment on the NYISO and its stakeholders and direct the NYISO to report back to the Commission in one year regarding its evaluation of further modifications to the regulation market design proposed in the NYISO Filing.

The NYISO respectfully disagrees that the stakeholder-driven Budget and Priorities Working Group ("BPWG") process is inadequate to appropriately review whether cost-effective design improvements for the Regulation Service market are appropriate and, if so, on what timetable they should be implemented. Every year, the NYISO outlines the existing FERC Orders, existing tariff obligations, strategic initiatives, state of the market recommendations and necessary infrastructure enhancements for which project commitments are required over the following year and asks for Market Participants to provide it with additional project candidates. Together with its stakeholders, the NYISO evaluates and prioritizes next-year projects using objective criteria that reflect the NYISO strategy, stakeholder interest, and potential impacts to budget and resources. The NYISO conducts feasibility assessments - estimating in detail the hardware, software, consultancy and staff requirements for each identified project - and makes proposed project recommendations for the next year. [27]

The NYISO commits to adding to the 2012 review of 2013 efforts, for prioritization through the BPWG process, a review of Regulation Service market improvements. The NYISO would also be happy to report to the Commission in October, 2012 on the results of the work on that issue that were reported out of the BPWG and what next steps it has planned for this effort.

[27] *See*, *for instance*, the 2011 BPWG presentation outlining the 2012 project list for early review at http://www.nyiso.com/public/webdocs/committees/mc_bpwg/meeting_materials/2011-05-18/5_18BPWG_2012PrioritizationandBudgeting_Process.pdf

II. CONCLUSION

WHEREFORE, for the reasons set forth above, the NYISO respectfully requests that the Commission reject the comments and suggestions as discussed herein, and accept the NYISO's Compliance Filing without requiring any modifications.

Respectfully submitted;

/s/ Mollie Lampi

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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 6th day of June 2012.

By: /s/ John C. Cutting

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