

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

**Settlement Intervals and Shortage Pricing in)
Markets Operated by Regional Transmission)
Organizations and Independent System)
Operators)**

Docket No. RM15-24-000

COMMENTS OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

In accordance with the *Notice of Proposed Rulemaking* issued by the Federal Energy Regulatory Commission (“Commission”) on September 17, 2015 in the above-referenced proceeding (the “NOPR”), the New York Independent System Operator, Inc. (“NYISO”) hereby submits its comments in response to the NOPR.¹ The NYISO generally supports the proposals set forth in the NOPR, as well as the broader price formation policy objectives that the Commission intends to pursue in the future.

Better aligning settlement and scheduling intervals and improving shortage pricing triggers will enhance price formation and, ultimately, benefit consumers in all organized markets. Price formation improvements should be especially beneficial in regions, like New York, that have centralized capacity markets because they will reduce the amount of “missing money” that must be addressed through capacity payments.² Proper price formation will also

¹ NOPR at P 66.

² The NYISO has previously emphasized the interrelated nature of energy, ancillary services, and capacity markets. For example, it has stated that “it is important to evaluate the performance of the capacity, energy, and ancillary services markets together because they are closely integrated and complementary. The markets as a whole should send economic signals that maintain reliability while providing competitive resources an opportunity ‘to recover both their variable and fixed costs over time.’ This is what sound market design, and applicable legal precedent, require and this avoids any potential ‘missing money problem.’” Docket No. AD14-18-000, *Joint Technical Conference on New York Markets & Infrastructure*, Written Statement of Emilie Nelson (November 3, 2014).

help to promote renewable generation, and other resources, that may principally depend on energy market revenues.

Although aligning settlement and pricing intervals is a sound market design principle, there are limited instances, some of which are discussed below, in which exceptions should be allowed.

I. COMMUNICATIONS AND CORRESPONDENCE

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

Robert E. Fernandez, General Counsel
Raymond Stalter, Director, Regulatory Affairs
*Garrett E. Bissell, Senior Attorney
10 Krey Boulevard
Rensselaer, NY 12144
Tel: (518) 356-6107
Fax: (518) 356-8825
gbissell@nyiso.com

*Person designated for receipt of service.

II. COMMENTS

A. Settlement Intervals

The NOPR proposes to “require that each RTO/ISO settle energy transactions in its real-time markets at the same time interval it dispatches energy and settle operating reserves transactions in its real-time markets at the same time interval it prices operating reserves.”³ The NYISO generally supports this proposal. As the NOPR observes, the NYISO currently uses “a settlement interval that matches the dispatch interval.”⁴ The NYISO has used sub-hourly settlements in its real-time markets for Energy, Regulation Service, and Operating Reserves

³ NOPR at P 34.

⁴ NOPR at P 15, fn. 19.

since its inception.⁵ The NYISO's real-time settlement and dispatch intervals are normally five minutes long, although they can be shorter or longer at times when the NYISO's real-time dispatch software has entered "corrective action mode."

The NYISO's use of tightly coupled settlement and dispatch intervals has provided critically important economic incentives for resources to follow NYISO dispatch instructions. It has also provided opportunities for supply resources to receive full compensation for their performance. The NYISO's rules thus accurately and transparently reflect the value of providing specific services needed to address actual system conditions.

There are certain cases, however, in which the NYISO currently performs settlements on an hourly basis and should not be required to bring those settlements into alignment with its normal dispatch intervals.⁶ For example, station power settlements in the NYISO are conducted hourly.⁷ Similarly, Limited Energy Storage Resources ("LESRs") - energy storage devices that do not participate in the energy market and that only provide Regulation Service in the NYISO-administered markets - receive hourly settlements for net injections and withdrawals related to the NYISO's management of the charging capability of the storage asset.⁸ The special

⁵ Capitalized terms not otherwise defined herein shall have the meaning specified in Section 1 of the NYISO Open Access Transmission Tariff ("OATT") and Section 2 of the NYISO Market Administration and Control Area Services Tariff ("Services Tariff").

⁶ The NYISO is presenting these examples for illustrative purposes. If the NOPR's proposals are adopted, the NYISO would demonstrate that its existing rules, including its limited use of hourly settlements, are appropriate. The NYISO is not seeking a Commission determination that its existing rules comply with the NOPR's proposals at this time. See NOPR at P 57.

⁷ See Section 4.7 of the Services Tariff; Docket EL01-50-002, *KeySpan-Ravenswood, Inc. v. New York Independent System Operator, Inc.*, Compliance Filing and Request for Expedited Action (September 20, 2002); and *KeySpan-Ravenswood, Inc. v. New York Independent System Operator, Inc.*, 101 FERC ¶ 61,230 (2002).

⁸ See Section 15.3.6.1 of Rate Schedule 3 of the Services Tariff; Docket No. ER09-836-000, *New York Independent System Operator, Inc.*, Proposed Tariff Revisions to Integrate Energy Storage Devices into the NYISO-Administered Regulation Service Market (March 11, 2009); and *New York Independent System Operator, Inc.*, 127 FERC ¶ 61,135 (2009).

settlement rules for Station Power and LESRs are both exceptions to the normal rule that subhourly settlements are appropriate. These special settlement rules were previously approved by the Commission despite the NYISO's general practice of using sub-hourly settlements in the Real-Time Market.⁹

The Commission has previously held that determining the value of station power on an hourly basis is an appropriate and reasonable methodology.¹⁰ In doing so, the Commission determined that “a generator may net against its gross output as measured over a specific time period, typically one hour ... even though there may be occasions during that one hour when the gross output is less than station power requirements.”¹¹ The Commission has noted that the use of a one-hour period for determining station power appropriately recognizes that “generation output varies constantly.”¹² The NYISO's use of hourly settlements for Station Power; therefore, aligns the settlement thereof with the interval over which the quantity of Station Power is determined.

For LESRs, the net hourly settlement is unrelated to participation in the real-time Energy market. In fact, these resources participate only in the NYISO-administered Regulation Service market. The hourly settlement procedures relate to accounting for the energy management activities undertaken by the NYISO on the resource's behalf. In connection with the resource's participation in the NYISO-administered Regulation Service market, the NYISO provides energy management service in order to maximize the resource's capability to provide Regulation

⁹ *KeySpan-Ravenswood, Inc. v. New York Independent System Operator, Inc.*, 101 FERC ¶ 61,230 (2002); and *New York Independent System Operator, Inc.*, 127 FERC ¶ 61,135 (2009).

¹⁰ *See, e.g., KeySpan-Ravenswood, Inc. v. New York Independent System Operator, Inc.*, 107 FERC ¶ 61,142 at P 39 (2004); and *PJM Interconnection, L.L.C.*, 94 FERC ¶ 61,251 at 61,891-92 (2001).

¹¹ *PJM Interconnection, L.L.C.*, 94 FERC ¶ 61,251 at 61,891-92 (2001).

¹² *Id.*

Service. The hourly settlement for LESRs accounts for the net injections and withdrawals that occur as a result of such energy management. Because this settlement is unrelated to participation in the real-time Energy market, the proposed requirement to utilize sub-hourly settlements does not appear to be applicable.

In neither case above do the settlement rules create a disincentive to follow NYISO dispatch instructions or fail to provide appropriate incentives for resource response in real-time. It may be that similar cases exist in other ISOs/RTOs. Any final rule adopted in this proceeding should be sufficiently flexible to accommodate such exceptions.

The NOPR expressly states that it is not proposing to extend the Commission's proposed reforms to intertie transactions. The Commission, however, seeks comment on "whether settlement reforms are appropriate for intertie transactions that are scheduled on intervals different from the intervals on which RTOs/ISOs dispatch internal real-time energy."¹³

The NYISO supports the principle that settlement timeframes for intertie and internal transactions should be aligned. Providing consistent price signals for internal generation and interchange promotes competition and allows for the most economic supply option to be identified. Both internal and external transactions should have equal incentives to respond to the same price signals reflecting real-time system conditions. Greater consistency of settlement intervals across neighboring regions would also help to improve the efficiency of interregional transactions.

¹³ NOPR at P 39.

B. Shortage Pricing Triggers

The NOPR proposes “to require that RTOs/ISOs trigger shortage pricing for any dispatch interval during which a shortage of energy or operating reserves occurs.”¹⁴ The NYISO agrees that prices should reflect real-time conditions, including reserves shortages.

As noted above, the NYISO prices Operating Reserves on a five-minute basis. This practice is necessary to support the NYISO’s use of a least-cost economic dispatch market model that simultaneously co-optimizes Energy, Regulation Service and Operating Reserves nominally every five minutes in real-time. Co-optimization ensures that the system commits and dispatches adequate resources to meet the flexibility requirements of the system. It also allows prices to reflect shortage conditions that are brief in duration. Even though such shortages may not last long they are critically important indicators of actual system conditions and needs.

The NYISO currently implements shortage pricing in both its Day-Ahead and Real-Time Markets utilizing various demand curves for Operating Reserves (*i.e.*, Operating Reserve Demand Curves), Regulation Service (*i.e.*, Regulation Service Demand Curve) and transmission security (*i.e.*, Transmission Shortage Cost). These demand curves represent the escalating value of each product as the level of any shortage thereof increases. The NYISO has utilized demand curves for shortage pricing since 2005.¹⁵

Consistent with the NOPR’s proposal, the NYISO uses the demand curves to price all reserves shortages, regardless of their duration. The NYISO’s use of demand curves allows for prices to increase as shortages worsen. Escalating prices allow the commitment and dispatch software to determine the most economic solution to resolve different levels of shortage.

¹⁴ NOPR at P 51.

¹⁵ See Docket No. ER04-230-000, *New York Independent System Operator, Inc.*, Tariff Revisions Reflecting Implementation of Enhanced Real-Time Scheduling Software (November 26, 2003); and *New York State Independent System Operator, Inc.*, 106 FERC ¶ 61,111 (2004).

Escalating prices also incentivize greater resource flexibility by rewarding resources that are capable of responding to real-time system conditions.

The NYISO supports the Commission's proposal that shortage pricing should be triggered for any dispatch interval when there is a shortage of reserves. Operating Reserve Demand Curves are a proven shortage pricing tool that has worked well in New York.

Finally, the NYISO notes that it does not interpret the NOPR to be addressing the use of offline resources in real-time pricing or to be implying that practices, such as the NYISO's "Hybrid Pricing" rules,¹⁶ are inconsistent with the proposal to require that all reserve shortages be priced.

III. CONCLUSION

In conclusion, the NYISO respectfully requests that the Commission consider these comments when developing a final rule in this proceeding.

Dated: November 30, 2015

Respectfully submitted,

/s/ Garrett E. Bissell

Garrett E. Bissell
Senior Attorney
New York Independent System Operator, Inc.
10 Krey Blvd.
Rensselaer, New York 12144
(518) 356-6107
gbissell@nyiso.com

¹⁶ The Hybrid Pricing rules were adopted in 2001. *See New York Independent System Operator, Inc.*, 95 FERC ¶ 61,121 (2001). They apply to Real-Time Market pricing and relax the minimum operating limits of certain fast-start, block-loaded resources in order to permit them to be eligible to set price based on the incremental need that required their commitment.

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 30th day of November 2015.

/s/ Joy A. Zimmerlin

Joy A. Zimmerlin
New York Independent System Operator, Inc.
10 Krey Blvd.
Rensselaer, NY 12144
(518) 356-6207