

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
Philip D. Moeller, and Jon Wellinghoff.

New York Independent System Operator, Inc.

Docket Nos. ER05-941-003  
ER05-941-004

ORDER DENYING REHEARING AND ACCEPTING COMPLIANCE FILING

(Issued December 5, 2006)

1. On December 27, 2005, the Commission issued an order in these proceedings in which it accepted revised tariff sheets submitted by the New York Independent System Operator, Inc. (NYISO) adopting a two-day Virtual Transactions collateral requirement.<sup>1</sup> At the same time, the Commission accepted NYISO's compliance filing of August 16, 2005, which discussed the appropriateness of using a reference price based on a 97<sup>th</sup> percentile in calculating collateral requirements for the Virtual Transactions market.<sup>2</sup>
2. On January 31, 2006, NYISO filed a compliance report (January 31 Report) required by the July 1 Order. In it NYISO discussed the financial risks associated with Virtual Transactions in NYISO-administered markets and concluded that use of a one-day rather than a two-day Virtual Transaction collateral requirement, *i.e.*, a one-day multiplier in the formula for calculating collateral requirements, would be inadequate to provide market participants with reasonable protection against risk of loss from bad debts.
3. EPIC Merchant Energy LP (EPIC) filed a request for rehearing of the December 27 Order. EPIC also protested the January 31 Report. As discussed below, EPIC's request for rehearing is denied, and the January 31 Report is accepted for filing.

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<sup>1</sup> *New York Independent System Operator, Inc.*, 113 FERC ¶ 61,319 (2005) (December 27 Order). NYISO filed its revised tariff sheets in response to the Commission's directive in *New York Independent System Operator, Inc.*, 112 FERC ¶ 61,004 at P 11-14 (2005) (July 1 Order).

<sup>2</sup> That filing also was made in response to a Commission directive set forth in the July 1 Order. *See* July 1 Order, 112 FERC ¶ 61,004 at P 16-17.

## **Background**

4. On May 5, 2005, NYISO filed revisions to its Open Access Transmission Tariff (OATT) and its Market Administration and Control Area Services Tariff that, among other things, reduced the amount of collateral required to participate in its Virtual Transactions market. NYISO proposed to reduce the basis for calculating collateral in that market from seven to four days. EPIC protested that the reduced requirement was still excessive and that use of a 97<sup>th</sup> percentile reference price<sup>3</sup> as the assumed market-clearing price from financial trading was unreasonable and resulted in an excessive collateral requirement.

5. The Commission directed NYISO in the July 1 Order to adopt a two-day Virtual Transactions window in place of the proposed four-day window. The Commission also directed NYISO to submit a compliance filing justifying the use of a reference price based on a 97<sup>th</sup> percentile in calculating collateral requirements for the Virtual Transactions market.<sup>4</sup>

6. NYISO filed revisions to its OATT on July 22, 2005 that reduced the Virtual Transactions collateral requirement from four to two days.

7. On August 16, 2005, NYISO submitted a compliance filing discussing the appropriateness of using a reference price based on a 97<sup>th</sup> percentile in calculating collateral requirements for the Virtual Transactions market (August 16 Filing).

8. In the December 27 Order, the Commission accepted the revised tariff sheets submitted on July 22, 2005 and the August 16 Filing.

9. EPIC filed a request for rehearing of the December 27 Order.

10. On January 31, 2006, NYISO filed the January 31 Report, which concluded that a one-day Virtual Transactions window would not provide market participants with reasonable protection from risk of loss arising from bad debts.

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<sup>3</sup> *I.e.*, the 97<sup>th</sup> percentile of the highest actual price experienced in the market over a three-month period.

<sup>4</sup> The Commission also directed NYISO to study, with stakeholder involvement, the feasibility of moving to a one-day Virtual Transactions collateral window and report the results of this analysis to the Commission within 180 days. *Id.* at P 15.

## **Notice of Filing, Interventions, and Protests**

11. Notice of the January 31 Report was published in the *Federal Register*, 71 Fed Reg. 8,295 (2006), with interventions and protests due on or before February 21, 2006. EPIC filed a protest to the January 31 Report. Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., LIPA, New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation (collectively the New York Transmission Owners) filed comments on the January 31 Report. The New York Power Authority (NYPA) filed a motion to intervene.

## **Discussion**

### **Procedural Matters**

12. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2006), the timely, unopposed motion to intervene serves to make NYPA a party to this proceeding.

### **Substantive Matters**

#### **a. Rehearing Request**

##### **i. EPIC Request for Rehearing**

13. EPIC maintains in its request for rehearing that NYISO has failed to demonstrate that use of a 97<sup>th</sup> percentile price methodology to calculate required collateral for Virtual Transactions is just, reasonable, not unduly discriminatory and consistent with Commission precedent. EPIC maintains that the Commission concluded in the case of the Midwest Independent Transmission System Operator, Inc. (MISO) that a 50<sup>th</sup> percentile price methodology would not create undue market risks, and it argues that there is no rational basis for distinguishing MISO from NYISO in this connection. EPIC claims that NYISO has presented no evidence or factual support showing either that a 97<sup>th</sup> percentile methodology is needed to prevent market exposure or that a 50<sup>th</sup> percentile methodology would subject New York markets to any realistic market exposure. EPIC argues that use of a 97<sup>th</sup> percentile price differential calculation results in a collateral posting requirement that is different from, and far higher than, the requirements applicable to any other type of market participant or transaction in the NYISO system. Finally, EPIC claims that the December 27 Order improperly shifts the burden of proof from NYISO to EPIC on the issue of whether use of a 97<sup>th</sup> percentile price methodology is justified.

14. EPIC also raises a number of specific objections to NYISO's August 16 Filing accepted by the Commission in the December 27 Order. It claims the filing is limited to

theoretical examples and conclusions that are not supported by fact. According to EPIC, NYISO's data for the period from 2000 through August 2005 demonstrates that a 50<sup>th</sup> percentile calculation produces a collateral posting price that exceeds the average NYISO exposure from Virtual Transactions for all years. EPIC says that it provided examples showing that a comparison of market prices and a 97<sup>th</sup> percentile collateral posting requirement led to gross over collateralization, and it maintains that NYISO has not substantiated its claim to have flagged 36 instances in 2004 where a one day loss would have exhausted a market participant's collateral. Finally, EPIC identifies a collection of what it claims are other errors, flawed assumptions and defects. These include NYISO's acknowledgment that no virtual participant has defaulted, NYISO's computation of the incorrect collateral amount for Virtual Transactions, unrealistic assumptions concerning clearance of virtual participant offers, and NYISO's assumption that a virtual participant was allowed to continue trading after it had exhausted all collateral. Finally, EPIC maintains that NYISO incorrectly claims to have experienced a price differential of \$570 per MWh at one bus for one hour on June 1, 2005.

## ii. Commission Determination

15. EPIC misstates the significance that the MISO case cited in the July 1 Order has in the present context.<sup>5</sup> The Commission expressed concerns in that case that while MISO had adopted the use of a 50<sup>th</sup> percentile in the credit calculation for the financial transmission rights auction market, it retained a different, 97<sup>th</sup> percentile calculation for the virtual trading credit requirement. The Commission directed MISO to justify this divergent practice. In response, MISO chose simply to adopt the 50<sup>th</sup> percentile for the virtual trading credit requirement without further explanation.<sup>6</sup> Those facts differ from the facts presented here, and thus *MISO* does not support EPIC here.

16. The Commission's expressed concern in *MISO* was the disparity between collateral requirements for the financial transmission rights auction market and Virtual Transactions,<sup>7</sup> *i.e.*, the disparate treatment of two sets of similar, financial transactions. Here, on the other hand, EPIC objects to the disparate treatment of different types of transactions, *i.e.*, virtual and physical transactions. EPIC seeks to apply the substantive credit requirements of the latter to the very different former.

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<sup>5</sup> *Midwest Independent Transmission System Operator, Inc.*, 109 FERC ¶ 61,285 at P 377 (2004) (*MISO*) (requiring justification of a 97<sup>th</sup> percentile calculation).

<sup>6</sup> See MISO Letter, Docket Nos. ER04-691-019 and EL04-104-018 at 9 (January 19, 2005).

<sup>7</sup> *MISO*, 109 FERC ¶ 61,285 at P 373, 377.

17. We reject EPIC's claim that "MISO is the benchmark precedent against which the NYISO methodology should be measured."<sup>8</sup> When the Commission instructed NYISO to submit a compliance filing "consistent with our directions to the Midwest ISO,"<sup>9</sup> it simply indicated the type of filing it sought, *i.e.*, a justification for the standard chosen. The Commission did not thereby endorse any specific substantive standard for calculating collateral requirements. The Commission rejects any implication that the sequence of events in *MISO* can be interpreted as establishing a "benchmark" for the calculation of Virtual Transaction collateral requirements.

18. A proper reading of *MISO* highlights the fallacy in EPIC's argument that use of a 97<sup>th</sup> percentile price differential calculation results in a collateral posting requirement that is different from, and far higher than, the requirements applicable to other types of market participants or transactions in the NYISO system. NYISO's creditworthiness requirements provide that all market participants fully collateralize their transactions in all NYISO markets.<sup>10</sup> That this uniform requirement that all market participants fully collateralize their transactions in all NYISO markets may result in different outcomes among entities that are not similarly situated does not make it unreasonable or otherwise inappropriate. This result is a consequence of equal, not unequal, treatment.

19. EPIC also challenges NYISO's August 16 compliance filing as limited to theoretical examples and unsupported by facts. EPIC does not explain what it means by "theoretical," which creates little opportunity for a reply. We can respond only that the Commission often deals with judgments about future behavior. Such forward-looking judgments necessarily involve assumptions and theories, but that in itself is no defect.<sup>11</sup> What matters is whether the judgments are based on sound reasoning. NYISO's August 16 compliance filing makes certain bidding behavior assumptions that are defined in the filing, and it also reaches conclusions based on factual, historical market results for the given period. In short, NYISO provides appropriate reasoning and factual support to persuade us to accept the August 16 compliance filing.

20. EPIC's challenge to the August 16 compliance filing's content is that, on average, a collateral posting set using a 50<sup>th</sup> percentile would be adequate. Since NYISO market

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<sup>8</sup> EPIC Rehearing Request at 8.

<sup>9</sup> July 1 Order, 112 FERC ¶ 61,004 at P 17.

<sup>10</sup> December 27 Order, 113 FERC ¶ 61,319 at P 15.

<sup>11</sup> *See, e.g., F.P.C. v. Transcon. Gas Pipe Line Corp.*, 365 U.S. 1, 29 (1961) (finding that "a forecast of the direction in which future public interest lies necessarily involves deductions based on the expert knowledge of the agency").

clearing results, and thus the need for collateral requirements, are not based on averages, but rather on individual bid results, EPIC's challenge is without basis. Moreover, the fact that to date no Virtual Transaction has resulted in a bad debt does not undermine NYISO's approach, as that is precisely the intended result of the virtual market creditworthiness policy.

21. In support of its findings that use of a 50<sup>th</sup> percentile could result in potential losses, NYISO stated that it analyzed actual bids and clearing prices for the Virtual Transactions market over the period from January 1, 2004 through December 31, 2004. Its objective was to identify the number of instances in which a single-day loss that would have exhausted all of a market participant's collateral using the 50<sup>th</sup> percentile as the requirement instead of the 97<sup>th</sup> percentile. The analysis assumed no increase in participants' collateral above the two days required. The analysis then took the result for the two days and netted it against the one-day loss that exhausted all the collateral. NYISO stated that, using these criteria, its analysis flagged 36 occurrences where a one-day loss exhausted all of a market participant's collateral. NYISO further stated that running the same analysis using the 97<sup>th</sup> percentile and two days to determine the collateral amounts resulted in no such occurrences. As we stated in the December 27 Order, and repeat here, NYISO's analysis in the August 16 compliance filing may indeed represent a "worst case scenario." However, that NYISO can identify any market event at all resulting in "bad debts," much less 36 such market events, would be evidence that use of the 50<sup>th</sup> percentile could impose inappropriate financial burdens on other market participants. As for EPIC's dispute of the results for June 1, 2005, we find that even if the price differential quoted were incorrect, excluding that single day would not change the ultimate conclusion.

22. Finally, the Commission rejects the claim that it shifted the burden of proof to EPIC when it found that "EPIC has not made a convincing case" that NYISO's compliance filings were inadequate.<sup>12</sup> The burden of proof in this proceeding was on NYISO. The Commission found NYISO's filings to be acceptable based on its review of those filings and for the reasons expressed in the December 27 Order. The Commission did not shift the burden of proof to EPIC by finding EPIC's arguments unconvincing, just as we did not shift the burden to EPIC when in the July 1 Order we found certain of EPIC's arguments to be convincing.<sup>13</sup>

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<sup>12</sup> EPIC Rehearing Request at 16.

<sup>13</sup> July 1 Order, 112 FERC 61,004 at P 13 (stating that "[w]e agree with EPIC that NYISO has not justified its proposal to reduce the collateral requirement to four days . . .").

**b. Compliance Filing****i. January 31 Report**

23. The Commission directed NYISO in the July 1 Order to study, with stakeholder involvement, the feasibility of moving to a one-day Virtual Transactions collateral window and to report the results of this analysis to the Commission within 180 days.

24. NYISO retained Dr. David Babbel and Dr. Scott Harvey of LECG to perform the necessary analysis and present it to stakeholders. Dr. Babbel and Dr. Harvey concluded that due to certain features of the Virtual Transaction markets, a two-day requirement is more appropriate than a one-day requirement. They specifically identified the following factors as contributing to the need for a two-day requirement: (i) the time lag between submission of bids and the calculation of real-time prices; (ii) the time required by NYISO to identify losses, provide appropriate notification to a virtual trader and collect additional collateral; and (iii) the statistical probability that additional losses will accrue to the virtual trader prior to the posting of additional collateral. The results of this study were presented to the NYISO Scheduling and Pricing Working Group on January 20, 2006,<sup>14</sup> and the January 31 Report was filed eleven days later. NYISO requests that the Commission accept the continued use of a two-day collateralization requirement.

25. The New York Transmission Owners filed comments in support of the January 31 Report. They note that the January 31 Report states that even a two-day requirement may be insufficient to protect market participants from a virtual trader's default. They also note that by the time losses are available for a given day, a virtual trader could have locked in an additional day's market position (with the attendant potential for losses). The New York Transmission Owners state that the January 31 Report shows that a virtual trader could bid up to four days before NYISO would know if the collateral call resulting from day-one losses had been met. Indeed, for this reason they request that the Commission direct NYISO to engage in a stakeholder process to examine whether a multiplier of more than two days is necessary. They also point to the January 31 Report's conclusion that returns from virtual trading across successive days do not exhibit normal distribution but rather have a strong likelihood to move in the same direction.<sup>15</sup> They argue that this indicates a greater variance as well as a need for a higher collateral

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<sup>14</sup> NYISO states that stakeholder meetings to discuss the issues raised in the July 1 Order were conducted on August 12, 2005 (Credit Policy Task Force / Scheduling & Pricing Working Group meeting), November 29, 2005 (Scheduling & Pricing Working Group), and on January 20, 2006 (Scheduling & Pricing Working Group). See NYISO's Transmittal Letter included with the January 31 Report, at p. 2, n. 4.

<sup>15</sup> See January 31 Report at A-8.

multiplier than would be the case if each day's losses were independent and normally distributed. They conclude that the empirical evidence demonstrates the continued need for at least a two-day multiplier in the Virtual Transactions market (and possibly even a multiplier of more than two days).

26. EPIC requests that the Commission reject the conclusions of the January 31 Report. EPIC maintains that NYISO failed to collaborate with stakeholders as directed by the Commission and based its compliance filing on flawed assumptions. EPIC states that the collateral requirements for virtual market participants are unreasonable and excessive, far higher than needed to meet any realistic market exposure, and far higher than the collateral requirements applied to any other market participant. EPIC maintains that the single-day requirement provides more than adequate protection to the market since NYISO, through reasonable diligence and procedures, could know the residual market exposure from virtual trading at the end of one trading day. EPIC maintains that NYISO's outdated procedures for processing the collateral requirement results in unnecessary delays in posting cleared bids, thus increasing collateral requirements. EPIC requests that the Commission direct NYISO to implement immediately a one-day collateral requirement for Virtual Transactions.

#### **ii. Commission Determination**

27. We find that the January 31 Report satisfies the Commission's directive, and we will accept that filing. The record contradicts EPIC's claim that NYISO failed to collaborate with stakeholders as directed by the Commission. NYISO states that Dr. Harvey made a presentation at NYISO's Scheduling and Pricing Working Group meeting held on January 20, 2006 that detailed the results of the analysis. According to NYISO, stakeholders had an opportunity at that meeting to discuss these results with Dr. Harvey and NYISO staff and to provide comments. NYISO notes that it also held two other stakeholder meetings following the Commission's July 1 Order to discuss issues raised in that order.

28. We reject EPIC's protest that the collateral requirement is unduly discriminatory. As discussed above, the Commission has previously found the virtual market collateral requirements, while somewhat different from the requirements of other NYISO markets, to be just and reasonable and also consistent with the stakeholders' desire to provide full collateralization for participation in NYISO markets. We further note that since the inception of the Virtual Transactions market, NYISO has reduced collateral requirements from its original requested fourteen days' collateral to two days' collateral, has expanded the types of collateral acceptable, and has recognized netting of transaction revenues as a reduction of collateral to participate in the Virtual Transactions market. We encourage NYISO, as its experience with the Virtual Transactions market grows, to continue to explore ways to reduce barriers to participation in the Virtual Transactions market.

29. EPIC's claim that more diligence and better procedures would help reduce the collateral requirement to a single day is unsupported. The scope of these transactions means that one cannot know for 24 hours whether gains and losses have occurred and if so in what magnitude. This undermines the contention that a single day's collateral will allow for operation of a market on a continuous basis. Furthermore, it is necessary to allow time to notify a virtual bidder that collateral must be supplied and time for the virtual bidder to respond to that notification. This means that there is necessarily a lag between the operation of the market and the calculation of a virtual bidder's market position with respect its collateral requirements.

30. EPIC's description of what it regards as the antiquated system NYISO uses to administer, in part, the Virtual Transaction market is inconsistent with EPIC's conclusion that a single day's collateral requirement will provide sufficient protection to NYISO market participants in the event of a default by a virtual trader. We find that EPIC has failed to demonstrate that the methodology for posting collateral requirements and determining daily requirements for collateral unduly affects its ability to bid in the market. The Commission is aware of the efforts by NYISO and its stakeholders to restructure its settlement procedures to provide a higher level of service to market participants.<sup>16</sup> We believe that EPIC would be better served by taking its specific concerns to the appropriate stakeholder working group within NYISO.

31. In response to the request of the New York Transmission Owners, we will not order NYISO to engage in a stakeholder process to determine if a multiplier of more than two days is necessary. The issue has already been fully vetted in this docket and a finding returned.

The Commission orders:

- (A) EPIC's request for rehearing is hereby denied.
- (B) NYISO's compliance filing submitted on January 31, 2006 is hereby accepted for filing.

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<sup>16</sup> See *New York Independent System Operator, Inc.*, 116 FERC ¶ 61,037 (2006) (requiring, in Ordering Paragraph B, reports on status of pricing error reduction).

(C) The request of the New York Transmission Owners that we order NYISO to engage in a stakeholder process to determine if a multiplier of more than two days is necessary is hereby denied.

By the Commission.

( S E A L )

Magalie R. Salas,  
Secretary.