

171 FERC ¶ 61,003  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;  
Richard Glick and Bernard L. McNamee.

ISO New England Inc.

Docket No. ER13-2266-004

ORDER ON COMPLIANCE AND REMAND

(Issued April 1, 2020)

Paragraph Numbers

I. Introduction .....	<a href="#">1.</a>
II. Background .....	<a href="#">3.</a>
A. ISO-NE Filings.....	<a href="#">3.</a>
1. Program Rules Filing.....	<a href="#">3.</a>
2. ISO-NE Program Rules Amendments Filing .....	<a href="#">6.</a>
3. ISO-NE Bid Results Filing .....	<a href="#">7.</a>
B. Commission Orders.....	<a href="#">9.</a>
1. Program Rules Order .....	<a href="#">9.</a>
2. Bid Results Order .....	<a href="#">10.</a>
C. Bid Results Compliance Filing.....	<a href="#">11.</a>
D. Request for Rehearing of Commission Orders .....	<a href="#">12.</a>
1. Program Rules Request for Rehearing .....	<a href="#">13.</a>
2. Bid Results Request for Rehearing.....	<a href="#">15.</a>
III. Remand.....	<a href="#">17.</a>
A. D.C. Circuit Remand.....	<a href="#">17.</a>
B. Commission Order on Remand .....	<a href="#">21.</a>
IV. ISO-NE 2017 Compliance Filing.....	<a href="#">22.</a>
A. Participant Survey .....	<a href="#">23.</a>
B. IMM’s Tests for Structural Market Power .....	<a href="#">25.</a>
C. The IMM’s and ISO-NE’s Evaluations of Whether the Exercise of Market Power Occurred in the Auction.....	<a href="#">28.</a>
1. IMM’s Evaluation for the Exercise of Market Power .....	<a href="#">29.</a>
2. ISO-NE’s Evaluation for the Exercise of Market Power and Recommendation to	

The Commission .....	<a href="#">32.</a>
V. Notice of Filings and Responsive Pleadings .....	<a href="#">37.</a>
A. Mass AG Comments .....	<a href="#">39.</a>
B. TransCanada Protest.....	<a href="#">40.</a>
C. ISO-NE Answer.....	<a href="#">44.</a>
D. TransCanada Answer .....	<a href="#">48.</a>
VI. Discussion .....	<a href="#">52.</a>
A. Procedural Matters .....	<a href="#">52.</a>
B. Substantive Matters .....	<a href="#">54.</a>
1. Court Directive .....	<a href="#">55.</a>
a. Market-Based Review .....	<a href="#">59.</a>
2. Bid Results Were Just and Reasonable.....	<a href="#">62.</a>
a. Competitive Benchmark.....	<a href="#">64.</a>
3. Evaluating for the Exercise of Market Power .....	<a href="#">69.</a>
a. Differentiating Between Structural Market Power and the Exercise of Market Power.....	<a href="#">73.</a>
b. Participants and Profit in a Pay-As-Bid Auction .....	<a href="#">74.</a>
c. Court Precedent regarding the Exercise of Market Power .....	<a href="#">77.</a>
d. Tests for Structural Market Power: IMM Methods, Assumptions, and Thresholds .....	<a href="#">78.</a>
e. Test for the Exercise of Market Power: ISO-NE Justification of Auction Clearing Price .....	<a href="#">85.</a>
f. Participant Behavior.....	<a href="#">91.</a>

## **I. Introduction**

1. In a series of orders issued from September through November 2013, the Commission accepted ISO New England Inc.'s (ISO-NE) 2013-2014 Winter Reliability Program (Winter Reliability Program or Program).<sup>1</sup> On December 22, 2015, the

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<sup>1</sup> The Commission issued orders relating to the Winter Reliability Program in two proceedings. First, in Docket No. ER13-1851-000, et al., the Program Rules Proceeding, ISO-NE filed the rules for the Program, which included rules for participating in the auction process that ISO-NE used to procure the winter reliability service, and the Commission accepted those rules (*ISO New England Inc.*, 144 FERC ¶ 61,204 (2013) (Program Rules Order); *ISO New England Inc.*, 147 FERC ¶ 61,026 (2014) (Program Rules Rehearing Order)). Second, in Docket No. ER13-2266-000, et al., the Bid Results Proceeding, after running the auction, ISO-NE filed the auction results listing the bidders selected to provide the winter reliability service, and the Commission accepted those bid results (*ISO New England Inc.*, 145 FERC ¶ 61,023 (2013) (Bid Results Order); *ISO New England Inc.*, 147 FERC ¶ 61,027 (2014) (Bid Results Rehearing Order)). See Appendix A

D.C. Circuit remanded to the Commission the question of whether the prices paid for service under the Program were just and reasonable.<sup>2</sup> On August 26, 2016, the Commission directed ISO-NE to provide further information on this issue,<sup>3</sup> which it subsequently provided.

2. The Commission here accepts ISO-NE's compliance filing and finds that the bid results from the 2013-2014 Winter Reliability Program are just and reasonable. The Commission additionally provides the further reasoning requested by the court for this finding.<sup>4</sup>

## II. Background

### A. ISO-NE Filings

#### 1. Program Rules Filing

3. On June 28, 2013, ISO-NE and the New England Power Pool (NEPOOL) Participants Committee submitted the Program Rules Filing, consisting of proposed Tariff revisions for the Winter Reliability Program to maintain system reliability during the 2013-2014 winter. ISO-NE explained that two of New England's most pressing reliability risks were the region's increased reliance on natural gas-fired resources and resource performance during stressed system conditions.

4. The Program Rules Filing set forth a bidding process through which ISO-NE would procure the reliability service from resources able to provide either oil-inventory service (e.g., oil-fired or dual-fuel generators that can run on oil) or demand response service. The oil inventory resources selected in the auction would be required to fill their

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for the significant ISO-NE filings and Commission orders in the Program Rules and Bid Results proceedings.

<sup>2</sup> *TransCanada Power Mktg. Ltd. v. FERC*, 811 F.3d 1 (D.C. Cir. 2015) (*TransCanada*).

<sup>3</sup> *ISO New England Inc.*, 156 FERC ¶ 61,097 (2016) (Order on Remand).

<sup>4</sup> ISO-NE's October 15, 2013 Bid Results Compliance Filing quantified procurement of approximately 1.95 million MWh of winter reliability service at a cost of approximately \$75 million. See ISO-NE, Filing, Docket No. ER13-2266-001, at 7 (Oct. 15, 2013) (Bid Results Compliance Filing); *ISO New England Inc.*, Docket No. ER13-2266-001 (Nov. 13, 2013) (delegated order).

tanks with oil prior to winter; in exchange, they would be compensated based on their as-bid price for providing this fuel inventory service.<sup>5</sup>

5. ISO-NE explained that, after participants submitted their bids, ISO-NE would assess the bids based on the participant's as-bid costs and five other non-cost reliability factors. The proposed Tariff revisions listed the six criteria that ISO-NE would use when selecting resources: (1) the cost of providing the oil storage and demand response services; (2) an asset's historical availability and performance; (3) an asset's ability to respond within the operating day to contingencies and other changed conditions; (4) diversity of location and sensitivity to north/south and east/west constraints; (5) dual-fuel capability; and (6) replenishment capability.<sup>6</sup> In the Program Rules Filing, ISO-NE stated that information regarding the accepted bids would be filed with the Commission. The subsequent filing with the Commission, the Bid Results Filing, outlined a list of the participants selected in the auction, the compensation they would receive, and a description of the evaluation process.

## **2. ISO-NE Program Rules Amendments Filing**

6. On August 9, 2013, in Docket No. ER13-1851-001, ISO-NE submitted amendments to the Program Rules Filing. ISO-NE stated that, after evaluating the bids received by the July 30, 2013 bidding deadline (First Auction), it determined that the auction results were unacceptable because there was insufficient participation: the quantity of MWhs submitted by participants in the First Auction totaled only 1.415 million MWh compared to the maximum possible quantity that ISO-NE proposed to procure, 2.4 million MWh.<sup>7</sup> ISO-NE states that stakeholders offered that program participation would increase if the participants' risks were reduced.<sup>8</sup> ISO-NE subsequently filed Tariff revisions designed to increase program flexibility, reduce regulatory risk, and revise the penalties for the oil

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<sup>5</sup> ISO-NE, Filing, Docket No. ER13-1851-000, app. K (filed June 28, 2013) (Program Rules Filing). As-bid costs or as-bid price refers to the price the participant bid into the auction.

<sup>6</sup> *Id.* Prior Commission orders refer to criteria numbers two through six as the "non-cost factors" or "non-price factors" (i.e., reliability factors) and, in its remand, the D.C. Circuit sought more information on how the Commission valued the non-cost factors during its review. For clarity, in this order, we collectively refer to criteria numbers two through six as the non-cost reliability factors.

<sup>7</sup> Testimony of Kevin Kirby at 2 (Kirby Test.), *contained in* ISO-NE, Filing, Docket No. ER13-1851-001 (filed Aug. 9, 2013) (Program Rules Amendments Filing).

<sup>8</sup> *Id.* at 3.

inventory service.<sup>9</sup> Immediately following the Program Rules Amendments Filing, ISO-NE reopened a bidding window on August 12, 2013, to solicit participant bids under the revised Program rules (Second Auction).<sup>10</sup>

### 3. ISO-NE Bid Results Filing

7. On August 26, 2013, in Docket No. ER13-2266-000, ISO-NE submitted the Bid Results Filing, reflecting the results of the Second Auction. Of the 2.29 million MWh offered in the auction, ISO-NE proposed accepting approximately 1.995 million MWh at a total cost of approximately \$79 million.<sup>11</sup> ISO-NE explained that, after this cut-off point (i.e., \$31 per MWh-month), the supply curve became steeper, which would have resulted in increased costs but a negligible gain in the total procurement (i.e., negligible increases in reliability).<sup>12</sup>

8. ISO-NE had previously stated that the estimated costs of providing the Winter Reliability Program services could range between \$16 and \$43 million, depending on assumptions made regarding how much fuel was burned and how much unburned fuel was resold.<sup>13</sup> In response to later concerns raised by stakeholders that the nearly \$75 million final price tag for the Program exceeded this cost estimate, ISO-NE acknowledged that its filing did not explicitly define the scope of the cost estimate.<sup>14</sup>

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<sup>9</sup> *Id.* at 5-6.

<sup>10</sup> Bid Results Compliance Filing at 7-8.

<sup>11</sup> ISO-NE, Filing, Docket No. ER13-2266-000, at 3 (filed Aug. 26, 2013) (Bid Results Filing). As explained below, ISO-NE later revised the procurement quantity to approximately 1.95 million MWh and a total cost of approximately \$75 million after auction participants notified ISO-NE that they had submitted incorrect quantities when bidding in the auction.

<sup>12</sup> *Id.* at 2-4.

<sup>13</sup> Program Rules Filing at 25 n.68; *id.*, app. (Joint Testimony of Robert Ethier, Vice President of Market Development, and Peter Brandien, Vice President of System Operations, at 29-30) (Ethier-Brandien 2013 Testimony) (citing Meeting Presentation, NEPOOL Markets and Reliability Committees, A3.0 ISO-NE Winter 2013/2014 Reliability Proposal, at slides 40-47 (NEPOOL Cost Analysis) (May 30, 2013). [https://www.iso-ne.com/committees/markets/markets-committee/?publish-date=\[2013-05-29T00:00:00Z%20TO%202013-05-30T23:59:59Z\]&key-topic=Winter%202013/2014%20Reliability%20Solutions\)](https://www.iso-ne.com/committees/markets/markets-committee/?publish-date=[2013-05-29T00:00:00Z%20TO%202013-05-30T23:59:59Z]&key-topic=Winter%202013/2014%20Reliability%20Solutions)))).

<sup>14</sup> ISO-NE September 12, 2013 Answer, Docket No. ER13-2266-000, at 2-3.

However, ISO-NE stated that, when it delivered the cost estimate presentation to stakeholders in May 2013, its written presentation did note that the \$16-\$43 million figures estimated the costs that *providers* of the reliability service would expect to pay, but the cost estimate did not attempt “to translate these costs into offers.”<sup>15</sup>

## **B. Commission Orders**

### **1. Program Rules Order**

9. On September 16, 2013, the Commission accepted the Program Rules Filing, as amended by the Program Rules Amendments Filing.<sup>16</sup> Given the need to address reliability for the coming winter, the Commission found that the Program was an appropriate solution for the fixed time period requested and accepted the Program in time for winter.<sup>17</sup> In response to commenters’ concerns that ISO-NE would use its discretion to procure resources at a total cost far exceeding projected Program cost estimates, the Commission noted that ISO-NE could procure less than the 2.4 million MWh maximum and that ISO-NE had noted that it might opt to do so if costs were very high.<sup>18</sup> The Commission stated that, when selecting suppliers under the Program, ISO-NE would be able to consider factors such as generator location, performance history, flexibility, and the as-bid prices offered by generators.

### **2. Bid Results Order**

10. On October 7, 2013, the Commission conditionally accepted the Bid Results Filing, subject to ISO-NE submitting a compliance filing further detailing its bid selection process. In the Bid Results Order, the Commission noted that ISO-NE stated that it rejected all bids above \$31/MWh-month because accepting (1) all bids below that number provided 83.1% of the winter reliability service that it sought and (2) bids from the next tranche would increase program costs by \$4.4 million (5.6%) while only increasing the amount of winter reliability service procured by 2%. The Commission found that ISO-NE’s explanation lacked sufficient detail describing ISO-NE’s bid

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<sup>15</sup> NEPOOL Cost Analysis at slide 41. In other words, ISO-NE’s September 12, 2013 response explained that the NEPOOL Cost Analysis expressed expected costs for providers of the service, but it did not attempt to estimate the price levels at which participants would bid into the pay-as-bid auction.

<sup>16</sup> Program Rules Order, 144 FERC ¶ 61,204.

<sup>17</sup> *Id.* PP 21, 42.

<sup>18</sup> *Id.* P 32.

selection process in its Tariff and provided insufficient support for why \$31/MWh-month was the proper cutoff point above which all further bids were rejected.<sup>19</sup>

### C. Bid Results Compliance Filing

11. On October 15, 2013, in Docket No. ER13-2266-001, ISO-NE submitted its Bid Results compliance filing, explaining its bid selection process (Bid Results Compliance Filing).<sup>20</sup> In addition, pursuant to corrections from auction participants, ISO-NE also revised its proposed procurement quantity to approximately 1.95 million MWh and the associated total cost to approximately \$75 million.<sup>21</sup> ISO-NE stated that its bid selection process followed the process accepted by the Commission in the Program Rules proceeding.<sup>22</sup> ISO-NE explained that, during the bid evaluation process, it first arranged the bids by price (\$/MWh-month), placing each generator bid block in rank order from the lowest to highest cost of providing the oil storage and demand response services.<sup>23</sup> ISO-NE further explained that it proposed a \$31/MWh-month cut-off point on the price stack because bids acquired past that cut-off point would add significant monetary costs in exchange for negligible gain in reliability services. ISO-NE added that rejecting bids just below that \$31/MWh-month cutoff point would have resulted in negligible cost savings but more significant losses in procurement.<sup>24</sup> ISO-NE explained how it considered the non-cost reliability factors, including resource performance, flexibility, and ability to respond to contingencies. ISO-NE noted that it was not necessary to replace or supplement any of the resources within the selected group with a more expensive resource.<sup>25</sup> ISO-NE stated that, after it evaluated the geographical distribution of the final selected resources, taking into account locational constraints, it found that the resources in the initial selection group were favorably dispersed with respect to load concentrations and their location in relation to the north/south and east/west constraints. Therefore, ISO-NE concluded that no adjustments to the initial selection group were

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<sup>19</sup> Bid Results Order, 145 FERC ¶ 61,023 at PP 26-30.

<sup>20</sup> Bid Results Compliance Filing at 3.

<sup>21</sup> *Id.* at 7.

<sup>22</sup> *Id.* at 3.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* at 4.

<sup>25</sup> *Id.* at 5.

necessary.<sup>26</sup> On November 13, 2013, the Commission accepted the 2013 Compliance Filing.

**D. Request for Rehearing of Commission Orders**

12. TransCanada sought rehearing of the Commission's orders in the Program Rules proceeding and Bid Results proceeding, as follows.

**1. Program Rules Request for Rehearing**

13. On October 16, 2013, TransCanada sought rehearing of the Commission's September 16, 2013 Program Rules Order. TransCanada argued that the Commission failed to determine whether the overall costs of the Winter Reliability Program were just and reasonable. TransCanada contended that (1) the as-bid payment mechanism and resource selection criteria together compounded costs, and (2) resources meeting the resource selection criteria had an incentive to raise the price of their bid knowing they would probably be accepted and paid their as-bid price.<sup>27</sup> Although TransCanada acknowledged that Tariff section III.K.2 requires ISO-NE to file "a list of the selected Market Participants and the prices they will be paid, and will include a description of the evaluation process in the filing" after the auction, it asserted that such a list does not provide the Commission with the information necessary to accept the Program or to make a reasoned determination as to the justness and reasonableness of the resulting Program costs.<sup>28</sup>

14. In the Program Rules Rehearing Order issued on April 8, 2014,<sup>29</sup> the Commission denied TransCanada's request for rehearing. The Commission stated that, given the Program's purpose of addressing winter reliability concerns, the proposal appropriately allowed ISO-NE to consider criteria other than cost in selecting resources and those criteria likely would affect the Program's final cost. Thus, the Commission reaffirmed its earlier finding that the Program accorded ISO-NE an appropriate level of discretion for the purpose of ensuring system reliability.<sup>30</sup>

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<sup>26</sup> *Id.*

<sup>27</sup> TransCanada October 16, 2013 Request for Rehearing, Docket No. ER13-1851-005, at 6, 10.

<sup>28</sup> *Id.* at 6, 12-15.

<sup>29</sup> Program Rules Rehearing Order, 147 FERC ¶ 61,026 at P 16.

<sup>30</sup> *Id.* P 21.



## 2. Bid Results Request for Rehearing

15. On November 6, 2013, TransCanada sought rehearing of the Commission's October 7, 2013 Bid Results Order. TransCanada argued that the Commission should not have accepted the Bid Results Filing because the Commission did not have data available to evaluate the actual costs of providing services under the Program or whether the prices that would be charged in furtherance of the Program were just and reasonable.<sup>31</sup> TransCanada asserted that it was unreasonable for the Commission to rely on ISO-NE's good faith effort to develop a cost estimate because that estimate excluded risk premiums and profit margins. TransCanada contended that the Commission did not have any information that would enable it to separate the costs of providing the service from the amount of profit providers would make. TransCanada claimed that ISO-NE wrongly considered the market participants' as-bid prices, rather than participants' costs for procuring the oil to be used in the oil inventory service, in setting the rate.<sup>32</sup>

16. On April 8, 2014, the Commission denied TransCanada's rehearing request in the Bid Results Rehearing Order. The Commission stated that, while the Tariff allowed ISO-NE to consider both price and non-cost reliability factors in selecting the winning bids, the Tariff did not, contrary to TransCanada's assertion, require ISO-NE to consider "the amount it would cost participants to *procure* the oil." Rather, the Commission found that the Tariff required ISO-NE to consider the overall cost of providing the services.<sup>33</sup> The Commission noted that the Tariff required ISO-NE to consider relevant factors in making its selections, including the cost (dollars/MWh-month) of providing the oil storage and demand response services.<sup>34</sup> The Commission found that there is a distinction between the cost of procuring fuel and the cost of providing a fuel service (e.g., providing a service may include additional operational costs to satisfy response requirements or additional costs associated with risk). Therefore, the Commission found that the costs of providing the service could be higher than just the fuel procurement costs. The Commission concluded that ISO-NE reasonably followed its Tariff in

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<sup>31</sup> TransCanada November 6, 2013 Request for Rehearing, Docket No. ER13-2266-002, at 9-12.

<sup>32</sup> *Id.* at 12-16.

<sup>33</sup> Bid Results Rehearing Order, 147 FERC ¶ 61,027 at P 14 (emphasis in original).

<sup>34</sup> ISO-NE, Transmission, Markets and Services Tariff, § III, app. K, § III.K.6(a) (3.0.0) (Tariff).

interpreting the provision to require ISO-NE to consider the cost of providing services when selecting the winning bids.<sup>35</sup>

### III. Remand

#### A. D.C. Circuit Remand

17. TransCanada appealed the Program Rules Order and the Bid Results Order to the D.C. Circuit. On December 22, 2015, the court rejected TransCanada's challenges to the Program Rules Order.<sup>36</sup>

18. However, the court granted TransCanada's petition in part with regard to the Bid Results Order, to allow the Commission to either better justify its determination or revise its disposition to ensure that the rates under the Program are just and reasonable.<sup>37</sup> The court acknowledged that the Commission could use "a variety of formulae" to determine rates and that "rate determination methodologies may vary depending upon the circumstances of each case."<sup>38</sup> The court stated, however, that, "under established ratemaking principles, rates that permit excessive profits are not just and reasonable."<sup>39</sup> First, the court agreed with TransCanada's argument that the record was devoid of evidence regarding how much of the Program's cost was attributable to profit and risk mark-up. The court stated that TransCanada had raised a valid concern. The court was not persuaded by the Commission's statement that concerns regarding excessive profit margins were "speculative and not based on any evidence in this proceeding."<sup>40</sup> The court stated that "[the Commission] does not say that the figures for profit and risk mark-up are unavailable. They simply never addressed the matter."<sup>41</sup>

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<sup>35</sup> Bid Results Rehearing Order, 147 FERC ¶ 61,027 at P 14.

<sup>36</sup> *TransCanada*, 811 F.3d 1.

<sup>37</sup> *Id.* at 13.

<sup>38</sup> *Id.* at 12 (citing *Me. Pub. Utils. Comm'n v. FERC*, 520 F.3d 464, 471 (D.C. Cir. 2008) (per curiam), *rev'd in part on other grounds sub nom. NRG Power Mktg. v. Me. Pub. Utils. Comm'n*, 558 U.S. 165, 130 S.Ct. 693 (2010)).

<sup>39</sup> *Id.* (citing *Farmers Union Cent. Exch., Inc. v. FERC*, 734 F.2d 1486, 1502-03 (D.C. Cir. 1984)).

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

19. Additionally, the court found that the Commission did not provide an explanation of how it applied non-cost reliability factors in finding that the rates were just and reasonable. The court stated that, while the Commission referred to reliability benefits “as if to suggest that certain suppliers should be free to command high prices because of their reliability . . . neither [ISO-NE] nor [the Commission] explained this in a way that demonstrates that there would be no excess of profits.”<sup>42</sup>

20. Second, in response to intervenors’ argument that the Commission may rely on competitive market forces to ensure that profits are not excessively high, the court held that the Commission did not explain why the Program was competitive or explain the economic forces that it believed restrained the participants in their confidential bids into the auction. The court also found that the Commission did not attempt to define the relevant market or determine participants’ market power.<sup>43</sup>

### **B. Commission Order on Remand**

21. On August 8, 2016, in Docket No. ER13-2266-003, the Commission issued an order on remand directing ISO-NE to request information from Program participants that would enable ISO-NE and the IMM to evaluate the competitiveness of the Program and determine whether any amounts exceeding a participant’s cost of providing the winter reliability service are indicative of market participants exercising market power.<sup>44</sup> Specifically, the order directed ISO-NE to request from participants the basis for their bids, including the process used to formulate the bids, and to file with the Commission a compilation of this information, an analysis of such information by the IMM, and ISO-NE’s recommendation as to the reasonableness of the bids in the auction.<sup>45</sup>

### **IV. ISO-NE 2017 Compliance Filing**

22. On January 23, 2017, in Docket No. ER13-2266-004, ISO-NE responded to the Commission’s Order on Remand (2017 Compliance Filing). The 2017 Compliance Filing includes a report from the IMM (IMM Report) and testimony from ISO-NE’s Vice-President of Market Operations, Robert Ethier (Ethier 2017 Testimony).<sup>46</sup> The

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<sup>42</sup> *Id.* at 13.

<sup>43</sup> *Id.* (citing *Tejas Power Corp. v. FERC*, 908 F.2d 998, 1004-05 (D.C. Cir. 1990) (substantial evidence did not support a finding that the market was competitive where the Commission had made no finding regarding market power)).

<sup>44</sup> Order on Remand, 156 FERC ¶ 61,097.

<sup>45</sup> *Id.* PP 15-17.

<sup>46</sup> ISO-NE, Compliance Filing, Docket No. ER13-2266-004 (filed Jan. 23, 2017)

IMM Report provides a summary of the Program participants' responses to the IMM's request for information on bid formulation and a discussion of the IMM's tests for structural market power<sup>47</sup> separate from its test for the exercise of market power. The Ethier 2017 Testimony discusses the IMM Report and ISO-NE's test for the exercise of market power.

**A. Participant Survey**

23. In support of the IMM Report, the IMM surveyed Program participants to gather information on the basis for their bids.<sup>48</sup> The IMM asked participants to provide the cost-related data that supported their bids broken down into the following three categories: (1) fuel delivery and storage costs; (2) oil and electricity forward price data (used by the IMM to estimate participant risks associated with carrying costs); and (3) resource availability data (used by the IMM to reflect the costs associated with improving generator availability for participation in the Program (i.e., incremental maintenance costs) and the penalty risk associated with generator outages).

24. The IMM estimates the costs for the suppliers in the Program using both the participant responses from its survey and independent data sources. The IMM states that the variable cost of participating in the Program was largely based on the risks faced by the participants, including three separate risk categories: price risk, liquidity risk, and penalty risk. According to the IMM, price risk was present if the price of oil decreased after the start of the Program because the participant would be exposed to potential operational losses and inventory liquidation losses.<sup>49</sup> The IMM accounts for this price risk in its estimate of participant costs by including the cost of buying a put option on oil prices.<sup>50</sup> The IMM states that liquidity risk was present if the supplier's capital was tied up in excess oil inventory after the Program ended. The IMM accounts for this liquidity risk in its estimate of participant costs via the participant's submitted weighted average

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(2017 Compliance Filing) (submitting IMM Report and Ethier 2017 Testimony).

<sup>47</sup> In its report, the IMM sometimes uses the term "structurally uncompetitive" to explain a market in which participants have structural market power. In this order, we refer to this same concept as "structural market power."

<sup>48</sup> The IMM states that, while the Program included both oil inventory and demand response service, its analysis did not include the demand response service because the large majority of the reliability service procured for the Program was from oil inventory service. See IMM Report at 6.

<sup>49</sup> *Id.* at 17.

<sup>50</sup> *Id.* at 15.

cost of capital. The IMM states that penalty risk was present if a participant had a shortage of oil inventory or otherwise failed to meet its obligation. The IMM accounts for penalty risk using an empirical approach and per-barrel charges for oil to estimate actual penalties faced by Program participants. The IMM separately accounts for the carrying costs of oil using a risk-free rate, the effective 10-year Treasury bond rate at the time of the auction, to value this short-run cost of capital.<sup>51</sup>

### **B. IMM's Tests for Structural Market Power**

25. The IMM's evaluation for structural market power (i.e., an evaluation of the competitiveness of the Program's auction) includes two structural market power tests: a market concentration test and a residual supply index (RSI) test. The market concentration test evaluates the concentration of supply selected in the auction to determine if there was sufficient competition among participants to incent bid prices that do not have excess margins. The IMM's RSI test evaluates whether supply from each participant was needed in order to meet the maximum demand (i.e., whether any participants were unilaterally pivotal in an auction where ISO-NE would attempt to procure the maximum 2.4 million MWh).<sup>52</sup>

26. As a result of these two tests, the IMM concludes that the auction was not structurally competitive. Specifically, the IMM's market concentration test finds that 70% of the supply offered into the auction was from the four largest participants, which, according to the IMM, is a relatively high concentration ratio and indicates that a small number of participants controlled a large proportion of supply. Therefore, the IMM concludes that Program participants may have been able to submit uncompetitive bids that were selected in the auction and were thus able to raise prices above a competitive level.<sup>53</sup>

27. According to the IMM, the results of the RSI test show that there was insufficient supply to meet the 2.4 million MWh procurement level. Based on this test, the IMM finds that each participant was pivotal and had market power. The IMM further explains that, because the First Auction failed to attract sufficient supply to meet the target procurement amount, market participants were generally aware of the market power they

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<sup>51</sup> *Id.* at 17-18 & app. B.

<sup>52</sup> *See id.* at 11-13 for discussion of the tests employed by the IMM to test for market power (i.e., to measure the structural competitiveness of the auction).

<sup>53</sup> *See id.* at 11-12 for discussion of the IMM's market concentration test, one of the two tests the IMM used to test for market power.

held.<sup>54</sup> The IMM also states that the Program did not include market power mitigation measures.<sup>55</sup>

**C. The IMM's and ISO-NE's Evaluations of Whether the Exercise of Market Power Occurred in the Auction**

28. After testing for structural market power using the methods described above, the IMM designed a separate test to evaluate whether the exercise of market power occurred. Both the IMM and ISO-NE agree that participant incentives in a pay-as-bid auction differ from incentives in other auction formats, such as the uniform clearing price auction format used in ISO-NE's capacity and energy markets. Both also agree that, in a pay-as-bid auction, the incentive and expected behavior for participants is to estimate the offer price of the highest accepted bid in the auction and then bid near this number, even if it is above their own costs.<sup>56</sup> This incentive to submit bids that are above a resource's costs exists regardless of whether a pay-as-bid auction is competitive. According to ISO-NE, this incentive is well-established in the auction literature<sup>57</sup> and was known, and expected, during ISO-NE's development of the Winter Reliability Program.<sup>58</sup> As a result, the IMM states that it designed a test for the exercise of market power for this auction that took into account these pay-as-bid auction incentives.<sup>59</sup>

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<sup>54</sup> See *id.* at 11-13 for discussion of the IMM's RSI test, one of the two tests the IMM used to test for market power

<sup>55</sup> *Id.* at 3.

<sup>56</sup> For ease of reference, from this point forward, "participant expectations of the highest accepted bid in the auction" (i.e., the expected clearing price under competitive conditions) is referred to as the "expected marginal bid."

<sup>57</sup> See Ethier 2017 Testimony at 3 n.2 (citing A. Kahn et al., Pricing in the California Power Exchange Electricity Market: Should California Switch from Uniform Pricing to Pay-as-Bid Pricing?, Blue Ribbon Panel Report (Jan. 23, 2001), <https://core.ac.uk/download/pdf/6960646.pdf>).

<sup>58</sup> Ethier 2017 Testimony at 3.

<sup>59</sup> IMM Report at 19-21. For clarity, we provide the following practical example of how a representative markup measure would be calculated. If a participant's expected costs were \$1 and the participant expected the highest accepted bid in the pay-as-bid auction to be \$20, it might submit a bid just under \$20. In this case, the IMM's markup measure for this bid would be \$0 because the bid is not above the participant's expectation of the auction clearing price. In contrast, if this same participant bid \$25, the markup measure would be \$5. Similarly, if a participant's expected costs were \$25,

## 1. IMM's Evaluation for the Exercise of Market Power

29. Next, the IMM evaluates whether participants had, in fact, sought to exercise market power. In testing for the exercise of market power, the IMM first attempted to estimate what would be the auction's marginal bid under competitive conditions. To do this, the IMM estimates a supply curve and a procurement level and estimates the marginal bid at the intersection of these two lines. To create a supply curve, using both information provided in response to the IMM's survey as well as independent data sources, the IMM estimates the costs that participants would incur when participating in the program and uses this information to construct a "cost-based offer curve" (i.e., a supply curve).<sup>60</sup> The demand side of the market in this exercise is an assumed procurement level, and, in the IMM's analysis, the IMM assumes the procurement level of 1.95 million MWh, or the actual level of reliability procured during the auction. The IMM then determines an expected marginal bid by identifying where this estimated supply curve would intersect with the IMM-assumed procurement level. After identifying this point of intersection at \$15.08/MWh-month, the IMM adjusts it upward by 25% to \$18.85/MWh-month, to account for the fact that, according to the IMM, participants did not have certain information available to estimate their expectation of the marginal bid with precision and were thus likely to adjust their bid prices upward to

compensate.<sup>61</sup> In simpler terms, using the methods described above, the IMM assumes a procurement level of 1.95 million MWh which yields an expected marginal bid of \$18.85/MWh-month. The IMM then evaluates whether participants exercised market

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it bid at \$25 and that participant's expectation of the clearing price was \$20, the markup measure would be \$0 because the participant was simply reflecting its own expected costs in its bid.

<sup>60</sup> *Id.* at 17-19 & app. B.

<sup>61</sup> *Id.* at 20-21. According to the IMM, the 25% upward adjustment accounts for the following specific factors:

- (1) Different participants would naturally have different expectations for this highest cleared price and so using the upper bound of a range of expected prices is more accurate in this circumstance;
- (2) Participants had limited information regarding the pay-as-bid auction's supply and demand curves. Limited information reduces a participant's ability to accurately predict the price in this circumstance; and
- (3) This was the first year ISO-NE implemented a winter reliability program. There were no prior observations of similar program auction outcomes to use as a basis for how the auction would value this product.

power based on the assumption that any bid above \$18.85/MWh-month was due to a participant exercising market power.

30. In support of its assumed procurement level, the IMM states that it used the actual procurement level of 1.95 million MWh because participants knew that the First Auction did not attract sufficient supply to meet the targeted 2.4 million MWh quantity; therefore, it was possible that the Second Auction would also procure less than 2.4 million MWh. However, the IMM acknowledges that there is “no optimal demand value to use when assessing the expected highest bid that would have been accepted to meet the demand *from the perspective of participants in the Program.*”<sup>62</sup> Using an expected marginal bid of \$18.85/MWh-month, the IMM estimates potential cost overages of approximately \$6.6 million, compared to what the program would have cost if all bids were at or below \$18.85/MWh-month.<sup>63</sup>

31. However, the IMM states that “a number of issues – including market design issues, lack of information, uncertainty, and measurement accuracy issues – prevent us from concluding, with certainty, the extent to which participants exercised market power or the impact it had on Program cost.”<sup>64</sup> The IMM concludes that, while a “small proportion” of the total cost of the program may have resulted from the exercise of market power, the “vast majority” of supply was offered at prices that appear reasonable.<sup>65</sup> The IMM additionally states that “there are a number of factors that prohibit a direct conclusion that participants that submitted bids with medium and high markups were exercising market power.”<sup>66</sup> The IMM specifies a number of reasons why inexperience, uncertainty, and missing information “may have resulted in [participants taking] a more conservative valuation approach [when preparing their bids] and consequently [submitted bids with] higher bid price-to-cost markups.” The IMM acknowledges that, in estimating participant costs in the program, the IMM faced “limitations [... when] valuing certain risks, including price risk and the penalty risk.” The IMM states that, therefore, its “approach [when estimating participant costs in this

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<sup>62</sup> *Id.* at 19 (emphasis in original).

<sup>63</sup> *Id.* at 15, 22.

<sup>64</sup> *Id.* at 2-3, 15.

<sup>65</sup> *Id.* at 2, 15.

<sup>66</sup> These factors are detailed in the IMM Report at page 22.



analysis] may not have fully captured the risk valuation for certain participants and may have resulted in under-estimated cost and over-estimated markup.”<sup>67</sup>

## **2. ISO-NE’s Evaluation for the Exercise of Market Power and Recommendation to The Commission**

32. In the Ethier 2017 Testimony, ISO-NE explains that its test methodology for the exercise of market power was largely the same as the IMM’s. ISO-NE explains that it adopted the same cost-based offer curve (i.e., supply curve) as used by the IMM, like the IMM it computed an expected marginal bid based on where that supply curve intersected with an assumed procurement level, and like the IMM it used that expected marginal bid to evaluate for the exercise of market power. Where the tests differed was the assumed procurement quantity. ISO-NE’s estimated marginal bid price was based on a greater procurement quantity than the procurement quantity used by the IMM.<sup>68</sup> ISO-NE explains that, while the IMM used the auction’s observed procurement level of 1.95 million MWh, ISO-NE assumed a higher procurement quantity, 2.25 million MWh,<sup>69</sup> because 2.25 million MWh “is much closer to [ISO-NE’s] goal than is the actual quantity purchased, and thus may be more consistent with the amount that auction participants expected the ISO to purchase.”<sup>70</sup>

33. ISO-NE states that it determined that the supply curve would intersect with the procurement quantity of 2.25 million MWh at a price of \$24.86/MWh-month before adjusting that price upward by 25 percent to an expected marginal bid level of \$31.08/MWh-month.<sup>71</sup> ISO-NE concludes that, based on the marginal bid level of \$31.08/MWh-month, there is no evidence of the exercise of market power.<sup>72</sup> ISO-NE states that it calculated potential cost overages (i.e., amounts above what would

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<sup>67</sup> *See id.* at 22-23.

<sup>68</sup> Ethier 2017 Testimony at 8.

<sup>69</sup> *Id.* at 9 (noting that “[t]he highest cost offer calculated by the IMM, excluding a few outliers, was \$24.86/MWh-month and this corresponded to approximately 2.25 million MWh on the supply curve, out of 2.29 million MWh submitted.”).

<sup>70</sup> *Id.* at 8-9.

<sup>71</sup> ISO-NE states that it “used [the 2.25 million MWh procurement level], along with the 25 % adjustment, to determine the expected price for the estimated marginal bid as in the IMM analysis.” *Id.* at 9. The IMM explained its reasons for adjusting the prices upward in its report. *See supra* note 61 (quoting IMM Report at 20-21).

<sup>72</sup> Ethier 2017 Testimony at 10.

have been the marginal bid absent any exercise of market power) using both prices, \$24.86/MWh-month and \$31.08/MWh-month. ISO-NE notes that, using \$24.86/MWh-month, it estimated \$1.72 million in potential cost overages and, using \$31.08/MWh-month, it estimated \$0 in cost overages.<sup>73</sup> In simpler terms, using the same methods as used by the IMM (as described above), but a different procurement level of 2.4 million MWh, ISO-NE's analysis yields an expected marginal bid of \$31.08/MWh-month. ISO-NE then evaluates whether participants exercised market power based on the assumption that any bid above \$31.08/MWh-month was due to a participant exercising market power.

34. ISO-NE adds that, in 2013, it evaluated the marginal cost of each incremental quantity and determined that the reliability benefits from the Program met or exceeded Program costs at the chosen procurement level. ISO-NE states that it was authorized to procure additional quantities, which would have improved reliability, but judged that the incremental reliability benefits from additional procurement were not worth the additional costs.<sup>74</sup>

35. In discussing some elements of the IMM's analysis and decisions that would have been made by auction participants, ISO-NE notes that the IMM's construction of a representative supply curve contains "highly subjective elements" such as the IMM's need to "make a number of assumptions about financing costs and risks in order to calculate resource-specific costs."<sup>75</sup> ISO-NE also explains that participating in the auction "required [participants to estimate ISO-NE's] demand curve with very little guidance" from ISO-NE.<sup>76</sup> ISO-NE also states that, "[c]oupled with uncertainty about the shape of the demand curve, any analysis of auction competitiveness will have wide error bands."<sup>77</sup>

36. ISO-NE concludes that the various analyses of the auction results "show little to no evidence of the exercise of market power from the selected participants under a range of assumptions" and "there are uncertainties identified by the IMM that suggest a wide error band should be applied."<sup>78</sup> ISO-NE recommends that the Commission allow the

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<sup>73</sup> *Id.* at 9-12.

<sup>74</sup> *Id.* at 13-14.

<sup>75</sup> *Id.* at 4.

<sup>76</sup> *Id.* at 6-7.

<sup>77</sup> *Id.*

<sup>78</sup> *Id.* at 12.

results of the Winter Reliability Program to stand, stating that “the exercise of market power has not been sufficiently demonstrated to warrant modification of program payments.”<sup>79</sup>

## V. Notice of Filings and Responsive Pleadings

37. Notice of the 2017 Compliance Filing was published in the *Federal Register*, 82 Fed. Reg. 8747 (Jan. 30, 2017), with protests and interventions due on or before February 13, 2017. Massachusetts Attorney General (Mass AG) and National Grid submitted timely motions to intervene. Verso Corporation submitted a motion to intervene out of time.

38. On February 13, 2017, Mass AG submitted comments, and TransCanada submitted a protest. On February 28, 2017, ISO-NE submitted an answer. On March 10, 2017, TransCanada responded to ISO-NE’s answer.

### A. Mass AG Comments

39. Mass AG states that the \$6.6 million in potential overpayments, which the IMM estimated in the IMM Report, is significant to the ratepayers of Massachusetts.<sup>80</sup> Regarding ISO-NE’s analysis, Mass AG disagrees with ISO-NE’s conclusion that bids below \$31.08/MWh-month were reasonable based on ISO-NE’s use of a higher procurement quantity than what was actually purchased in the Program. According to Mass AG, ISO-NE uses these “fictional numbers” to reduce \$6.6 million in uncompetitive bids estimated by the IMM to ISO-NE’s range of \$0 to \$1.72 million.<sup>81</sup> Mass AG argues that ISO-NE’s approach is speculative and does not change the IMM’s finding that there were approximately \$6.6 million of overpayments. Mass AG contends that the difficulties cited by ISO-NE in proving market manipulation occurred (i.e., the novelty of the Program, the pay-as-bid auction format, and misinterpretation of bidding format by participants) are ripe for further inquiry by the IMM. Mass AG also asserts that ISO-NE’s concern that penalizing participants could chill participation in future reliability programs in ISO-NE or other regions is speculative. Mass AG asks the Commission to reject ISO-NE’s conclusion that the costs paid for the Program were reasonable and that no further investigation is necessary.<sup>82</sup>

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<sup>79</sup> *Id.* at 2.

<sup>80</sup> Mass AG February 13 Comments at 5.

<sup>81</sup> *Id.* at 5.

<sup>82</sup> *Id.* at 5-7.

**B. TransCanada Protest**

40. TransCanada states that, in 2013, it understood and supported ISO-NE's need to maintain reliability through the Winter Reliability Program and it continues to support the idea that suppliers should receive reasonable compensation for services rendered. TransCanada contends, however, that the evidence in this proceeding does not support the prices paid under the Program; rather it supports at least \$6.6 million of refunds.<sup>83</sup> TransCanada asserts that the IMM's statement that the auction was not structurally competitive is enough to end the inquiry and determine that the auction was not just and reasonable; instead, detailed supplier information should be used to determine compensation equal to actual cost, plus a reasonable risk and profit.<sup>84</sup> TransCanada claims that, while knowing if market power was exercised is important, conclusions that it was not exercised do not render the Program, auction, or bid selection process just and reasonable.<sup>85</sup> TransCanada argues that the Program's selection process was a structurally uncompetitive auction, and the bids must be reviewed in detail by the Commission to ensure they do not include excessive profits regardless of whether market power was exercised. TransCanada adds that the IMM's 25 percent upward adjustment in the marginal bid is unsupported by explanations related to the substantial risk, novelty, lack of information, and uncertainty associated with the Program.<sup>86</sup>

41. TransCanada asserts that the \$6.6 million or nine percent cost overages that the IMM estimates are significant and argue that these figures are at the low end of the estimate due to the IMM's upward adjustment, assumptions, and judgments.<sup>87</sup> TransCanada claims that ISO-NE's recommendation to find the rates just and reasonable

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<sup>83</sup> TransCanada February 13 Protest at 9.

<sup>84</sup> *Id.* at 10.

<sup>85</sup> *Id.* at 11.

<sup>86</sup> *Id.* at 14 (“[E]ven if it is assumed that the Program justified some upward adjustment, *suppliers* were responsible for documenting their offers at the time the offers were submitted and should have provided that documentation to the IMM. . . . Suppliers cannot in an out-of-market cost-based pricing program simply say ‘There is risk and therefore the offer is going to be adjusted upward by 25%’ without a detailed justification.” (emphasis in original)).

<sup>87</sup> *Id.* at 15.

essentially asks the Commission to disregard the Commission's responsibility to protect ratepayers under section 205 of the Federal Power Act (FPA).<sup>88</sup>

42. TransCanada states that the "presence of market power is relevant in that it makes the Program unjust and unreasonable."<sup>89</sup> Moreover, according to TransCanada, adjustments to price and compensation in this case would not require a finding that market power was in fact exercised. TransCanada states that, now that the Program and auction have been found to be structurally uncompetitive, any arguments that were advanced to the court about there being a competitive market have been refuted by ISO-NE itself and, as was originally contemplated, it is necessary to implement cost-based pricing and compensation to ensure just and reasonable rates, regardless of whether market power was exercised.<sup>90</sup>

43. TransCanada states that ISO-NE and its market participants are rightfully concerned with the protection of their confidential competitive information, but in light of the persisting price concerns, additional information should be shared and a settlement proceeding initiated.<sup>91</sup> TransCanada states that the results from the IMM's participant survey reveal gaps in information that suppliers should have provided for the calculation of their offers.<sup>92</sup>

### C. ISO-NE Answer

44. ISO-NE requests that the Commission dismiss TransCanada's request for a settlement proceeding and Mass AG's request for further investigation by ISO-NE.<sup>93</sup> According to ISO-NE, both TransCanada's and Mass AG's requests ask the Commission to create, in the absence of definitive answers, a presumption in favor of a refund to load, which would penalize market participants that took on risk to provide a much-needed reliability service.<sup>94</sup>

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<sup>88</sup> *Id.* at 14.

<sup>89</sup> *Id.* at 15.

<sup>90</sup> *Id.* at 15-16.

<sup>91</sup> *Id.* at 17.

<sup>92</sup> *Id.* at 19.

<sup>93</sup> ISO-NE February 28 Answer at 4.

<sup>94</sup> *Id.*

45. ISO-NE states that both TransCanada and Mass AG jump to the wrong conclusion because the IMM's determination regarding the structural competitiveness of the auction only establishes that further investigation into participant conduct was necessary; it does not automatically invalidate the auction results.<sup>95</sup> ISO-NE explains that the IMM conducted that further investigation by recreating the competitive bid that would have been utilized as a benchmark in market power mitigation for the auction and evaluating whether or not any amounts above cost indicate the exercise of market power.<sup>96</sup> ISO-NE states that the IMM sought to answer the critical questions – whether, and the extent to which, the relatively high winter program prices were the result of participants' exercise of market power – but according to ISO-NE, the IMM “could not conclude that participants had exercised market power.”<sup>97</sup>

46. ISO-NE argues that factors such as the novelty of the Program and challenges in valuing risk and forecasting weather far in advance, are not designed to mask real participant costs (i.e., they are not attempts to justify participants' exercise of market power), rather, according to ISO-NE, these factors genuinely made it difficult for participants to structure bids that would result in full cost recovery.<sup>98</sup> ISO-NE claims that, given this context, participants used less than scientific methods to calculate their bids.<sup>99</sup> ISO-NE further explains that, although the pay-as-bid auction structure created an incentive for participants to increase their bids to just below the expected highest cleared bid in the auction, it does not necessarily follow that market power was exercised. ISO-NE contends that, given the pay-as-bid structure and factors described above, it would be entirely reasonable for participants to bid in excess of their costs plus a reasonable rate of return (i.e., a “reasonable rate of return” on top of costs, under this market structure, would be one that approximates the highest cleared bid in the auction).<sup>100</sup>

47. ISO-NE argues that further investigation or a settlement proceeding would not be productive because no amount of further investigation can reveal whether market power

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<sup>95</sup> *Id.* at 5.

<sup>96</sup> *Id.*

<sup>97</sup> *Id.* at 6-7 & n.21 (emphasis omitted) (citing IMM Report at 15, 22).

<sup>98</sup> *Id.* at 6.

<sup>99</sup> *Id.* at 7-9.

<sup>100</sup> *Id.* at 6.

was exercised and, if it was, to what extent.<sup>101</sup> However, ISO-NE asks that, if the Commission believes that additional analysis is required, the Commission refer the matter to its Office of Enforcement, which ISO-NE states is uniquely suited to making determinations that focus largely on behavior. ISO-NE opposes TransCanada's request for the release of confidential information submitted by participants such as fuel delivery data, oil and electricity forward price data, availability costs, fuel storage costs, and identification of all generators sharing a common fuel storage site.<sup>102</sup> ISO-NE states this information was provided by participants on a confidential basis. ISO-NE adds that disclosure of this information would be harmful if it is exploited by entities seeking to compare their fuel procurement practices and risk tolerances to competitive advantage.<sup>103</sup>

#### **D. TransCanada Answer**

48. TransCanada disagrees with ISO-NE defining the issue remanded by the court as whether one or more sellers exercised market power. TransCanada explains that the issue the court required the Commission to resolve is whether the rates under the cost-based Winter Reliability Program were just and reasonable based upon a determination of the costs of each of the individual suppliers to the program and a reasonable return.<sup>104</sup> TransCanada asserts that the Program was expected to be conducted outside of ISO-NE's competitive markets, thereby requiring cost-based rates, adding that the Commission never investigated whether there was market power.<sup>105</sup> TransCanada notes the court directed the Commission to resolve whether, under the application of traditional cost-based ratemaking principles, there is evidence to support a finding that the rates were just and reasonable.

49. TransCanada asks the Commission to reject ISO-NE's request that the Commission's Office of Enforcement conduct any further investigation of suppliers' costs and profit margins.<sup>106</sup> TransCanada argues that the parties in this FPA section 205 proceeding have the right to obtain information through a process that gives them access to the cost support for the rates (e.g., the exchange of confidential information in a

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<sup>101</sup> *Id.* at 7-9.

<sup>102</sup> *Id.* at 9-10.

<sup>103</sup> *Id.*

<sup>104</sup> TransCanada March 10 Answer at 5.

<sup>105</sup> *Id.* at 7-8.

<sup>106</sup> *Id.* at 2-3.

settlement conference) to make an initial determination of whether the rates they paid were just and reasonable.

50. TransCanada contends that ISO-NE's claims about the confidential nature of suppliers' cost data are exaggerated. Although TransCanada asserts that the requested information is several years old and no longer relevant, it acknowledges that suppliers' costs should be provided on a confidential basis.<sup>107</sup>

51. TransCanada argues that, in asking the Commission to accept its 2017 Compliance Filing and find that the rates charged under the Program are just and reasonable, ISO-NE is also asking the Commission to (1) disregard ISO-NE's own acknowledgement that the program was not structurally competitive; (2) ignore the court's direction for a determination of just and reasonable rates based on suppliers' cost and profit margins; and (3) disregard the Commission's primary responsibility under the FPA to protect ratepayers from suppliers that have not supported their rates with cost data and who may have exercised market power.<sup>108</sup> TransCanada claims that the facts that the Program addressed needed reliability services and that it may be difficult to correct prices at this time do not justify leaving unjust and unreasonable rates in place.

## **VI. Discussion**

### **A. Procedural Matters**

52. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2019), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. We grant Verso Corporation's late-filed motion to intervene given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

53. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2019), prohibits an answer to a protest or answer unless otherwise ordered by the decisional authority. We accept ISO-NE's and TransCanada's answers filed in this proceeding because they have provided information that assisted us in our decision-making process.

### **B. Substantive Matters**

54. For the reasons discussed below, we accept ISO-NE's 2017 Compliance Filing. After review of the market power analyses and additional information provided, we find

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<sup>107</sup> *Id.* at 7.

<sup>108</sup> *Id.* at 9.



that the bid results from the auction procuring the 2013-2014 winter reliability service are just and reasonable.

### 1. Court Directive

55. As an initial matter, contrary to TransCanada's assertion, the court in *TransCanada* did not require the Commission to demonstrate that the rates for the Winter Reliability Program were just and reasonable under cost-based ratemaking principles. The court found that the Commission had failed to respond to TransCanada's argument that the bids that were accepted included excessive profit margins<sup>109</sup> and that "the Commission's reasoning in response to the point raised by TransCanada is inadequate to support a determination that the contested Program rates were just and reasonable."<sup>110</sup> These findings do not dictate the methodology for assessing whether the rates for the Winter Reliability Program were just and reasonable. Rather, as with every FPA section 205 filing, the Commission must determine if the rates presented in that filing are just and reasonable, regardless of whether the Commission analyzes those rates on the basis of costs or other means (such as a market-based analysis) to determine their justness and reasonableness. As the court recognized, "[t]he point made by TransCanada is not that the cost disparity [between the estimated and actual costs] rendered the rates *per se* unreasonable. Rather, the claim is that, considering this disparity, the Commission should have either inquired into the profit and risk mark-up *or explained its decision not to do so.*"<sup>111</sup>

56. The court found that, if the Commission analyzed the rates for the Winter Reliability Program based on the suppliers' costs (i.e., engaged in cost-based rate evaluation), that analysis is incomplete because the Commission did not rely on a record with sufficient cost data.<sup>112</sup> In response to the Commission's assertion that it balanced cost and non-cost reliability factors, the court stated that, "when [the Commission] chooses to refer to non-cost factors in ratesetting, it must . . . offer a reasoned explanation of how the [non-cost] factor[s] justif[y] the resulting rates" and that the Commission did not sufficiently explain what that balancing process entailed or how it had concluded that the suppliers' profit margins were not unreasonably large.<sup>113</sup> In particular, the court stated that the Commission had referred to reliability benefits "as if to suggest that certain

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<sup>109</sup> *TransCanada*, 811 F.3d at 11-12.

<sup>110</sup> *Id.* at 12.

<sup>111</sup> *Id.* (emphasis added).

<sup>112</sup> *Id.* at 11 (Commission "relied on a record that is devoid of any evidence regarding how much of the Program cost was attributable to profit and risk mark-up").

<sup>113</sup> *Id.* at 13 (citing *Farmers Union*, 734 F.2d at 1502).

suppliers should be free to command high prices because of their reliability,” but the Commission had failed to explain why those high prices would not lead to an excess of profits.<sup>114</sup>

57. Alternatively, the court addressed whether the Commission could use a market-based analysis to find that the Winter Reliability Program rates were just and reasonable. Although the court acknowledged that the Commission may rely on competitive market forces to ensure that profits are not excessive,<sup>115</sup> it found that the Commission had “provided no explanation for why it believed that the Program was competitive,” had not explained “the economic forces that it believed restrained the suppliers in their confidential bid offers,” and had not defined the relevant market or determined the participants’ market power.<sup>116</sup>

58. The court therefore remanded the case to the Commission “so that it may either offer a reasoned justification for the [Bid Results Rehearing Order] or revise its disposition to ensure that the rates under the [Winter Reliability] Program are just and reasonable as required by” FPA section 205.<sup>117</sup>

**a. Market-Based Review**

59. The Commission’s 2013 characterization of the Program as an “out-of-market solution”<sup>118</sup> was intended only to convey that the Program existed outside of ISO-NE’s pre-existing structured capacity, energy, and ancillary services markets. The Commission found that the Winter Reliability Program rates were just and reasonable based upon a market-based analysis. The Winter Reliability Program included the Commission’s review of bids. The bids were submitted to ISO-NE by sellers participating in an auction in which sellers bid against one another to provide the winter reliability service. Because the bids were based on an auction (a market mechanism), the Commission evaluated the bid results under a market-based paradigm.

60. The Commission’s original rate review has now been supplemented by ISO-NE’s 2017 Compliance Filing, which provides the results of further analyses conducted by the IMM and ISO-NE in response to the Commission’s directive to evaluate the bid results

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<sup>114</sup> *Id.*

<sup>115</sup> *Id.* (citing *Tejas Power Corp.*, 908 F.2d at 1004).

<sup>116</sup> *Id.*

<sup>117</sup> *Id.*

<sup>118</sup> Program Rules Order, 144 FERC ¶ 61,204 at P 42.

for evidence of whether participants exercised market power.<sup>119</sup> Similarly to the Commission's review of the rates when accepting the Program in 2013,<sup>120</sup> we find that it is appropriate to evaluate the rates for winter reliability service under a market paradigm. Our evaluation of the justness and reasonableness of participants' as-bid prices in these circumstances thus does not rely on whether those bids reflect participants' costs of providing services, and TransCanada's arguments have not persuaded us that the Commission should have evaluated those prices on a strict cost basis.<sup>121</sup>

61. Instead, we evaluate, first, whether participants possessed structural market power, and, if so, whether ISO-NE nonetheless demonstrated the existence of market design rules and other factors that sufficiently restrained participants' ability to exercise market power as to render the Winter Reliability Program prices just and reasonable.<sup>122</sup> We find that although the IMM found that the auction was not structurally competitive,<sup>123</sup> ISO-NE nevertheless demonstrated that the Winter Reliability Program prices were just and reasonable because there were factors that sufficiently restrained parties' ability to

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<sup>119</sup> Order on Remand, 156 FERC ¶ 61,097 at P 16 (“Specifically, ISO-NE should request from Program participants information that will enable ISO-NE’s IMM to evaluate the competitiveness of the Program and whether any amounts exceeding a participant’s cost of providing the winter reliability service are indicative of market participants exercising market power in that Program.”).

<sup>120</sup> See Program Rules Order, 144 FERC ¶ 61,204 at P 54. While the Commission acknowledged that ISO-NE had not developed a proposal that could distinguish between resources within a market-based construct, it accepted ISO-NE’s proposal to use an “as-bid” auction methodology, noting that “resources selected for the Program will be chosen based on both price and non-price factors, including historical availability and performance, ability to respond to contingencies, diversity of location, and sensitivity to transmission constraints.” *Id.*

<sup>121</sup> TransCanada February 13 Protest at 7 (noting that “competitive market forces did not exist in the Program or the associated auction and . . . a record has to be developed so that the Commission can determine the profits and risk mark-ups as required by the Court, . . . [and] whether the cost of the Program was just and reasonable”).

<sup>122</sup> *Blumenthal v. FERC*, 552 F.3d 875, 882 (D.C. Cir. 2009) (stating that the court has “never held that FERC must establish the competitiveness of an entire market before permitting any participant to charge market-based rates. [Rather,] what matters is whether an individual seller is able to exercise anticompetitive market power, not whether the market as a whole is structurally competitive.” (citations omitted)).

<sup>123</sup> See *supra* PP 25-27.

exercise market power.<sup>124</sup> These factors included the facts that, ahead of the auction, participants lacked information about ISO-NE's chosen level of procurement, the costs and strategy of their competitors, and how ISO-NE would value the non-cost reliability factors that it would consider in addition to price when selecting bids.

## 2. Bid Results Were Just and Reasonable

62. The Commission's 2013 decision to accept the Bid Results was based on the Winter Reliability Program addressing a specific reliability need; the cost of the Winter Reliability Program was an aspect that ISO-NE took into consideration when weighing the reliability benefits. In our current review of the Commission's 2013 decision, it is reasonable to consider how much customers would have been willing to pay to avoid involuntary power outages. For example, prior to its development of the Winter Reliability Program, ISO-NE published a white paper covering the costs and benefits of solutions to address regional reliance on natural gas-fired generators. In this white paper, circulated in January 2013, ISO-NE discussed the price that customers would be willing to pay to avoid involuntary load shedding (i.e., the value of lost load or VOLL). ISO-NE stated that "a review of the literature on VOLL suggests that the range of estimated economic impacts associated with loss of load (and thus benefits of avoiding such interruptions) could reach into billions of dollars for a region the size of New England."<sup>125</sup>

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<sup>124</sup> Ethier 2017 Testimony at 4-6:

In theory, each bidder must also construct a complete cost-based supply curve, but without the benefit of knowing a portion of the underlying costs for other bidders because they don't have the benefit of the IMM's cost survey. . . . In addition to an uncertain supply curve, there was uncertainty about how much [ISO-NE] would procure and how much [ISO-NE] would be willing to pay to ensure that the [Winter Reliability Program] was fully subscribed. . . . The nature

of the pay-as-bid auction requires profit-maximizing bidders to perform complicated estimates, either explicitly or implicitly, of other bidders' costs and offer strategies.

<sup>125</sup> Memorandum from Gordon van Welie to NEPOOL Participants Committee et al. (Jan. 25, 2013) (attaching Letter from Paul Hibbard, Analysis Group to ISO-NE, titled "Information regarding Potential Benefits and Costs of Solutions to Address the Risks Associated with New England's Reliance on Natural Gas", at 3 (Jan. 24, 2013)), [https://www.iso-ne.com/static-assets/documents/committees/comm\\_wkgrps/strategic\\_planning\\_discussion/materials/natural\\_gas\\_reliance.pdf](https://www.iso-ne.com/static-assets/documents/committees/comm_wkgrps/strategic_planning_discussion/materials/natural_gas_reliance.pdf).

While ISO-NE's 2013 filings did not reference this VOLL estimate, in reviewing the Commission's 2013 decision, it is reasonable to use a contemporaneous estimate of VOLL to consider a price that customers may have been willing to pay in 2013 to avoid a loss of load event (i.e., involuntary power outages) and to compare that to the \$75 million price that the region's customers did pay.

63. Further, in selecting a procurement level, it is evident that ISO-NE considered the tradeoff between reliability and customer costs. Had ISO-NE purchased all of the supply offered into the auction, it would have procured 2.29 million MWh of winter reliability service at a total cost of \$114.3 million.<sup>126</sup> However, using its discretion to balance regional reliability against customers' costs, ISO-NE only purchased 1.95 million MWh at a total cost of \$75 million. ISO-NE explained that it chose this procurement level after examining the impact that slightly higher or lower procurement levels would have on reliability and costs before determining that this procurement level adequately balanced these two factors.<sup>127</sup> While there was no tool available to precisely identify a dollar figure that represented the Program's value, we continue to consider it reasonable for the Commission to judge that the estimated reliability need was significant, and therefore rely on the likelihood that the value of such lost load could be significant, because customers typically put great value on avoiding load shedding.<sup>128</sup>

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<sup>126</sup> Bid Results Compliance Filing at 3.

<sup>127</sup> *Id.* at 4. ISO-NE stated that "the \$31 per MWh point on the price stack [that corresponds to 1.95 million MWh in quantity] was a discernible break point. After this cut-off point, the supply curve becomes steeper, such that, if [ISO-NE] were to acquire the next tranche, the program cost would increase by \$4.4 million (5.6%) and result in only a 2% gain in the target procurement amount. Lowering the cutoff point by just one dollar to \$30 per MWh-month would decrease program costs by 10% (\$7.3 million) but result in a 13% loss in the procurement amount, reducing it to only 70.5% of target."

<sup>128</sup> As an example, extreme weather conditions (i.e., the Polar Vortex), occurred in the 2013-2014 winter, and ISO-NE stated that the Winter Reliability Program was "invaluable" in maintaining reliable power systems operations during that winter period. "The program proved invaluable to power system operations during extreme cold weather conditions, particularly during the Polar Vortex, because generators had the fuel they needed to run when called on by [ISO-NE]." Remarks by Peter Brandien, Vice President, Operations, ISO-NE, Commission Panel Discussion, Winter 2016-2017 Operations and Market Performance in Regional Transmission Organizations and Independent System Operators (Docket No. AD16-24-000) (Oct. 20, 2016), <https://www.ferc.gov/industries/electric/indus-act/rto/A-4-ISO-NE.pdf>.

a. **Competitive Benchmark**

64. Next, for illustrative purposes, we examine what the Winter Reliability Program costs would have been using a competitive benchmark. To do so, we examine what the Program costs would have been if, instead of a pay-as-bid auction, ISO-NE had employed a uniform price auction. For this analysis, we use the same cost-based supply curve derived by the IMM in its 2017 market power analysis. The IMM's supply curve was based upon the IMM's reasonable estimates of participant costs, therefore representing an estimate of competitive bids from participants.<sup>129</sup> This scenario illustrates the results of an auction based on competitive offers by all suppliers (because all resources are assumed to offer at their incremental cost).

65. As already discussed, participants in a competitive pay-as-bid auction are likely to submit their bids just below their estimate of the clearing price, unlike participants in a competitive uniform price auction, who have an incentive to bid based on their own marginal costs. If the Winter Reliability Program had instead used a uniform price auction format, and all resources bid competitively (i.e., at or near their own estimated marginal costs, which is represented in the IMM's competitive cost-based supply curve), it would have yielded a clearing price of at least the marginal cost of the marginal bid.<sup>130</sup> The IMM estimated the marginal bid to be \$15.08/MWh-month.<sup>131</sup>

66. Because participants in a competitive pay-as-bid auction formulate their bids based on, and thus need to estimate, the likely clearing price, it is likely that some bids will come in below the price that would have resulted from a uniform clearing price

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<sup>129</sup> Both the IMM and ISO-NE examined whether any Program costs may have resulted from the exercise of market power and estimated the amount of excess costs, if any. Here, we use the same underlying data to calculate an alternative benchmark estimate of what the total costs of the Program would have been under competitive conditions which, by definition, removes the possibility that our estimate includes any excess costs due to market power.

<sup>130</sup> The clearing price could have been higher if any resources bid above their own marginal costs or if ISO-NE chose to select or reject resources for non-cost reliability factors (such as locational considerations and resource reliability) rather than simply choosing based on bid price, which would have resulted in higher clearing prices.

<sup>131</sup> See also IMM Report at 19-20 (noting that the cost-based supply curve and intersection with 1.95 million MWh is shown in Figure 4.1, which results in a value of \$15.08/MWh-month for the expected highest priced cleared bid under competitive conditions). We note that this estimate conservatively does not account for participant uncertainty by applying the 25% adder that the IMM applied in its estimates of potential refunds.

auction and some will come in above that price. In a competitive pay-as-bid auction, we would expect that, on average, resources' bids would be close to the clearing price that would have resulted from a competitive uniform clearing price auction.<sup>132</sup> In this case, the pay-as-bid auction procured 1.95 million MWh over the three-month Winter Reliability Program for \$75 million, approximately \$12.82/MWh-month, which is less than the IMM's estimated marginal bid of \$15.08/MWh-month.

67. Using the IMM's clearing price of \$15.08/MWh-month, which represents the lower bound estimate of the auction clearing price under a competitive uniform price auction, we compute a conservative estimate of the expected costs of a competitive program for comparison purposes. In a uniform price auction, all resources are paid the clearing price. Thus, under competitive conditions, using a uniform price auction format, we would have expected that the Winter Reliability Program would cost approximately \$88 million to procure 1.95 million MWh of supply, whereas, as shown above, the pay-as-bid auction format cost \$75 million.<sup>133</sup>

68. Although it is true that some resources in the Program were paid more than \$15.08/MWh-month (the IMM's estimate of the competitive marginal bid), some resources were paid less. This result is expected in a pay-as-bid auction because, as noted above, resources in a pay-as-bid auction bid based on their estimates of the expected clearing price, and thus necessarily are estimating the expected clearing price. In this case, using the IMM's assumptions,<sup>134</sup> but applying them under a competitive

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<sup>132</sup> The Revenue Equivalence Theorem states that, under certain, general conditions, all auction formats produce the same expected revenue and the same expected bidder profits. Our comparative analysis here evaluates the revenues (or costs from the perspective of consumers) that would be expected under two different auction formats: the actual auction format used in the Program (i.e., the pay-as-bid format) and the auction format used in this comparative analysis (i.e., the uniform price format), therefore providing a competitive benchmark based on estimates of competitive bids. See Paul Klemperer, *Auction Theory: A Guide to the Literature*, 13(3) J. ECON. SURVS. 227, § 4 (July 1999) (citing to R.B. Myerson, *Optimal Auction Design*, 6 MATHEMATICS OF OPERATIONS RES. 58-73 (1981) and J.G. Riley & W.F. Samuelson, *Optimal Auctions*, 71 AM. ECON. REV. 381-92 (1981)), <http://www.nuffield.ox.ac.uk/users/klemperer/Survey.pdf>.

<sup>133</sup> This \$88 million amount assumes that, under a uniform price auction, the auction would have procured 1.95 million MWh at a price of \$15.08/MWh-month and paid that price for the three months the program was in effect. Specifically,  $(1.95 \text{ million MWh}) * (\$15.08/\text{MWh-month}) * (3 \text{ months}) = \$88 \text{ million}$ .

<sup>134</sup> The IMM's assumptions here refer to our use of the IMM-derived competitive, cost-based supply curve coupled with the IMM's assumed procurement level of

uniform price auction format, load paid over \$13 million *less* for the Winter Reliability Program as implemented than it would have paid under the assumptions used in this example, all other things being equal. Because the total cost of this counterfactual is significantly higher than the actual costs of the Program that was implemented, this analysis supports a finding that the total costs of the actual Winter Reliability Program were just and reasonable.<sup>135</sup>

### **3. Evaluating for the Exercise of Market Power**

69. As stated above, in *TransCanada*, the court found that the Commission had failed to support its finding that the prices for the Winter Reliability Program were just and reasonable using either a cost-based or a market-based analysis.<sup>136</sup> In particular, the court found that, if the Commission sought to use a market-based analysis, it had not demonstrated why the Program was competitive or what mechanism prevented the rates from reflecting the exercise of market power.<sup>137</sup>

70. We now address whether there is enough evidence to support ISO-NE's position that in this auction, participants were sufficiently restrained from exercising market power as to render the rates for the Winter Reliability Program just and reasonable. For the reasons explained below, we find ISO-NE's position reasonable and we therefore conclude that the rates established by the pay-as-bid auction here were just and reasonable. First, we find that ISO-NE made a sufficient showing that factors existed that restrained participants' ability to exercise market power in their bids. Those factors included ISO-NE's not revealing to participants the exact value it placed on each increment of reliability (e.g., not fully making the demand curve known to participants in advance), which presented participants with a situation similar to a competitive market,<sup>138</sup>

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1.95 million MWh.

<sup>135</sup> We note that using \$18.85/MWh-month as our estimate of the competitive price, which is the IMM's estimate of the cost-based marginal offer plus a 25% adder, rather than \$15.08/MWh-month, would result in significantly greater estimated cost savings for consumers. Using \$18.85/MWh-month as the clearing price results in consumer costs of approximately \$110 million or consumer savings of approximately \$35 million when compared to this counterfactual.

<sup>136</sup> *TransCanada*, 811 F.3d at 11-13.

<sup>137</sup> The court stated that the Commission did not "explain the economic forces that it believed restrained the suppliers in their bid offers." *Id.* at 13.

<sup>138</sup> Ethier 2017 Testimony at 6 ("[P]rospective [participants] faced a great deal of uncertainty about what [ISO-NE's] demand curve would look like and where it would



the difficulty of estimating other participants' bids to provide this new service,<sup>139</sup> and participants' inability to measure how ISO-NE would value the non-cost reliability factors that it would consider in addition to price when selecting bids.<sup>140</sup> We also find that ISO-NE used reasonable assumptions to identify that participants may have bid with the expectation that the highest accepted bid in the auction would be \$31.08/MWh-month.

71. Neither protester successfully challenges ISO-NE's determination that market power was sufficiently restrained. First, both Mass AG and TransCanada argue in essence that, because the IMM found that structural market power existed in the auction for winter reliability service, this ends the inquiry into justness and reasonableness, and "cost-based pricing and compensation is what needs to be implemented to ensure just and reasonable rates."<sup>141</sup> That view is inaccurate because the inquiry into whether market prices are just and reasonable involves not simply whether structural market power is present, but also whether such structural market power was mitigated.<sup>142</sup> Second, Mass AG and

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intersect their estimated supply curve.").

<sup>139</sup> *Id.*

<sup>140</sup> *See supra* P 5.

<sup>141</sup> Mass AG February 13 Comments at 2; TransCanada February 13 Protest at 2, 10-12, 16. For example, TransCanada points to the IMM's statement that "at least \$6.6 million of the Program's costs may have been the result of the exercise of market power," and on this basis states that "[t]he only conclusion that can be reached . . . is that the Program itself, the bids and the resulting rates were unjust and unreasonable" (TransCanada February 13 Protest at 2) (emphasis added).

<sup>142</sup> *See Blumenthal*, 552 F.3d at 882-83 ("We have required that, before FERC approves an individual seller's use of market-based pricing in lieu of cost-of-service regulation, it must determine that 'the seller and its affiliates do not have, or adequately have mitigated, market power in the generation and transmission of [electric] energy, and cannot erect other barriers to entry by potential competitors.'") (citing *La. Energy & Power Auth. v. FERC*, 141 F.3d 364, 365 (D.C.Cir.1998); *Consumers Energy Co. v. FERC*, 367 F.3d 915, 922-23 (D.C.Cir.2004); *Elizabethtown Gas Co. v. FERC*, 10 F.3d 866, 871 (D.C.Cir.1993); *Tejas Power Corp.*, 908 F.2d at 1004). The Commission stated in Order No. 697-A that "to the extent a seller seeking to obtain or retain market-based rate authority is relying on existing Commission-approved RTO/ISO market monitoring and mitigation, we adopt a rebuttable presumption that the existing mitigation is sufficient to address any market power concerns." *Market-Based Rates For Wholesale Sales Of Electric Energy, Capacity And Ancillary Services By Public Utilities*, Order No. 697-A, 123 FERC ¶ 61,055, at P 111, *clarified*, 124 FERC ¶ 61,055, *order on reh'g*,

TransCanada fail to present convincing challenges to ISO-NE's determination that factors existed that made it difficult for the IMM to determine that participants were exercising market power. ISO-NE first pointed to the IMM's conclusion that multiple factors "prohibit a direct conclusion that participants that submitted bids with medium and high modified markups were exercising market power," including "the novelty of the program and participants' resulting conservatism in valuing inventory and assessing risk."<sup>143</sup> In discussing participant expectations ahead of the 2013 auction, ISO-NE noted that, although the IMM's 2017 analysis assumed that participants would have expected ISO-NE to purchase roughly the quantity of winter reliability service that it did purchase (1.95 million MWh), ISO-NE's 2017 analysis assumed 2.25 million MWh based on an assumption that participants would have expected ISO-NE to purchase an amount closer to the quantity that it originally sought (2.4 million MWh).<sup>144</sup> Mass AG and TransCanada attack ISO-NE's analysis as speculative or inaccurate, but they do not support their assertion that bidders must have been exercising market power. Instead, TransCanada simply asserts that ISO-NE's "reliability need . . . created an essentially inelastic vertical demand that suppliers were aware of"<sup>145</sup> – an inaccurate statement, given that ISO-NE originally stated that it would purchase *up to* 2.4 million MWh of winter reliability service and ultimately purchased a smaller quantity, 1.95 million MWh.

72. In evaluating ISO-NE's filing as it relates to whether market power was exercised, we first establish the difference between market power and the exercise of market power. Second, we discuss the expected bidding behavior in a pay-as-bid auction. Third, we

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Order No. 697-B, 125 FERC ¶ 61,326 (2008), *order on reh'g*, Order No. 697-C, 127 FERC ¶ 61,284 (2009), *order on reh'g*, Order No. 697-D, 130 FERC ¶ 61,206 (2010), *aff'd sub nom. Mont. Consumer Counsel v. FERC*, 659 F.3d 910 (9th Cir. 2011).

<sup>143</sup> 2017 Compliance Filing at 4 (citing IMM Report at 22-23). The IMM noted that participants had no information or historical experience as to how the program would be administered and how the auction would value this reliability product and therefore may have taken a conservative approach in valuing their inventory. Participants were also aware that fuel prices in New England could vary significantly based in part on availability and weather conditions. *See* IMM Report at 22-23.¶

<sup>144</sup> 2017 Compliance Filing at 3 ("While the IMM Report used the actual purchase quantity (1.95 million MWh), ISO-NE wanted to see results at a quantity closer to [ISO-NE's] 2.4 million MWh goal, as this value may better reflect participants' expectations."). We note that, ahead of the Second Auction, ISO-NE stated that "[t]he bids received [during the First Auction] were inadequate, totaling only 1.415 million of the 2.4 million MWh sought . . . ." Program Rules Amendments Filing at 2; *see also* Kirby Test. at 2.

<sup>145</sup> TransCanada February 13 Protest at 9.

examine the methods that the IMM uses to conduct tests for market power and the assumptions and thresholds that it uses in those tests. Fourth, we examine the common test that both the IMM and ISO-NE use to evaluate for the exercise of market power. Fifth, after finding that ISO-NE's test relies on reasonable methods, assumptions, and thresholds, we find that, consistent with the ISO-NE's conclusion, sufficient evidence exists to conclude that market power was not *exercised*. Finally, we analyze various factors that would have motivated participants to bid competitively in this auction.

a. **Differentiating Between Structural Market Power and the Exercise of Market Power**

73. It is important to recognize the distinction between structural market power and the exercise of market power. Structural seller-side market power exists where a seller has the ability to profitably alter market prices away from competitive levels. The exercise of seller-side market power is the use of that ability to benefit the seller itself or one of its affiliates. Thus, when evaluating whether rates are just and reasonable in markets in which structural market power might exist, one must differentiate between the presence of structural market power in a market and whether the approved market rates included adequate provisions to restrain the possible exercise of market power. Contrary to TransCanada's view,<sup>146</sup> structural market power alone (i.e., a structurally uncompetitive market) does not necessarily result in unjust and unreasonable rates. Therefore, in this proceeding, we examine whether the possible exercise of market power was sufficiently restrained by market design rules and other factors to render the auction sufficiently competitive such that the results are just and reasonable.

b. **Participants and Profit in a Pay-As-Bid Auction**

74. It is also important to recognize that participants in a pay-as-bid auction must bid above their costs in order to secure a profit.<sup>147</sup> In contrast, in a uniform clearing price auction (such as ISO-NE's annual forward capacity auction), a uniform price is established by the highest selected bid in the auction (i.e., the marginal bid) and that price is paid to all selected participants. Under competitive conditions, the uniform clearing price auction provides strong incentives for participants to bid at their marginal costs because, while the bid setting the clearing price will just break even, any bid selected in the auction that has marginal costs below the clearing price (i.e., an inframarginal bid) will earn profits based on the difference between its bid and the clearing price. And, for a participant to earn any profits, its bid must be selected in the auction. The lower a

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<sup>146</sup> *Id.* at 15-16 (stating that the "presence of market power is relevant in that it makes the Program unjust and unreasonable" and that cost-based ratemaking must be implemented "regardless of whether market power was exercised").

<sup>147</sup> See IMM Report at 16-17; see also *supra* note 57.

resource bids, the higher the likelihood that the bid will, in fact, be selected and thus the participant will earn a profit (assuming, as above, that bid is at or above that resource's marginal cost).<sup>148</sup>

75. However, because participants in a pay-as-bid auction are paid a price equal to their bid, to secure any profit they must bid above their costs. As ISO-NE states in its testimony, in a pay-as-bid auction “the incentive and expected behavior [is] for participants [...] to estimate the offer price of the marginal resource and then offer near this number if it is above their own costs [and this] is well-established in the auction literature and was known, and expected, during the development of the [Winter Reliability Program by ISO-NE].”<sup>149</sup> The IMM concurs, stating that, “[e]ven when the auction is highly competitive, the pay-as-bid format provides the incentive for lower cost participants to raise their bid price to just below the expected highest cleared bid price.”<sup>150</sup> Therefore, in a pay-as-bid auction format, rational participants will bid at the higher of (1) their own costs or (2) just below their expectations of the marginal bid. If the participants expect to have costs below the marginal seller (i.e., the seller that sets the clearing price), then their bids will be above (potentially far above) their own costs.

76. Since participants will bid based on their expectations of the clearing price (or based on their own costs, whichever is higher), a participant with relatively low marginal costs may be more likely to submit bids with a higher “markup” (e.g. bid minus cost) component than participants with relatively high marginal costs (e.g. marginal costs closer to or above the expected clearing price). However, in a pay-as-bid auction, this higher “markup” (e.g., bid above a seller's own costs) could simply be indicative of a seller's expectations that its costs are relatively low in comparison to its competitors, not necessarily evidence of the exercise of market power or an attempt to obtain excessive

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<sup>148</sup> For more discussion regarding participant incentives in pay-as-bid auctions contrasted against those in a uniform price auction, see IMM Report at 16-17 & Ethier 2017 Testimony at 3-4.

<sup>149</sup> Ethier 2017 Testimony at 3. Additionally, consistent with Commission precedent, we find that, under conditions that limit the exercise of market power, a pay-as-bid auction can produce just and reasonable results. The Commission recently granted market-based rate authority to an entity based on specific features of the competitive solicitation process in which the entity intended to participate. These features included the fact that “the [Request for Proposals process] will be a pay-as-bid rather than a single, price clearing auction, which will limit any seller's ability to exercise market power to influence prices because the price received by each winning seller will equal the seller's bid rather than the highest-priced bid accepted.” *Carolina Solar Power, LLC*, 164 FERC ¶ 61,058, at P 15 (2018).

<sup>150</sup> IMM Report at 16.

profit margins. In addition, a seller bidding above its own costs risks not being selected because it has priced itself out of the auction. Further, in the Winter Reliability Program's auction, participants had no historical reference points to use to estimate their costs relative to other sellers' costs because participants were unfamiliar with the new ISO-NE service and likely did not have existing models for estimating their projected costs to provide the service. As a result, their ability to accurately predict their profit margins (or losses) at the time that they bid into the auction may have been reduced. Although the participants submitted bids in August 2013, in many cases, they would not know their actual profit margins until March 2014 or later. While recognizing that there were various business practices available to Program participants that could have affected their profit margins (or losses), a selected participant finishing the winter with unused oil inventory procured for the Program would not know its profit margins (or losses) until it burned that oil to sell electricity or sold the oil to another party.

**c. Court Precedent regarding the Exercise of Market Power**

77. As courts have stated, “[i]n a competitive market, where neither buyer nor seller has significant market power, it is rational to assume that the terms of their voluntary exchange are reasonable.”<sup>151</sup> However, the D.C. Circuit has expressly rejected the argument that the Commission must find that a market “as a whole is workably competitive before [the Commission can] conclude that it is just and reasonable for any generator to receive market-based rates.”<sup>152</sup> Rather, the court explained that “what matters is whether an individual seller is able to exercise anticompetitive market power, not whether the market as a whole is structurally competitive.”<sup>153</sup> While in some cases courts relied on the existence of specific market power mitigation mechanisms to ensure that generators do not exercise market power,<sup>154</sup> the Ninth Circuit has noted that *Blumenthal* specifically “relied on [the Commission’s] requirement” of reports assessing the competitiveness of the market, based on data reflecting the behavior of each market

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<sup>151</sup> *California ex rel. Lockyer v. FERC*, 383 F.3d 1006, 1013 (9th Cir. 2004); see also *Mont. Consumer Counsel*, 659 F.3d at 916.

<sup>152</sup> *Blumenthal*, 552 F.3d at 882; see also *Mont. Consumer Counsel*.

<sup>153</sup> *Blumenthal*, 552 F.3d at 882.

<sup>154</sup> *Pub. Util. Dist. No. 1 of Snohomish Cty., Wash. v. FERC*, 471 F.3d 1053, 1082 (9th Cir. 2006) (holding that FERC could not defer to bilateral energy contract without adopting any monitoring mechanism), *aff’d on other grounds sub nom. Morgan Stanley Capital Group Inc. v. Pub. Util. Dist. No. 1 of Snohomish Cty., Wash.*, 554 U.S. 527 (2008).

participant.<sup>155</sup> As courts have noted, the Commission is given “the latitude to balance the competing considerations and decide on the best resolution” in its regulation of electricity markets.<sup>156</sup>

**d. Tests for Structural Market Power: IMM Methods, Assumptions, and Thresholds**

78. The IMM evaluates whether the Program’s auction was structurally competitive via two tests for structural market power: a market concentration test and a residual supplier index (RSI) test. After completing these tests, the IMM concludes that structural market power exists (i.e., the auction was not structurally competitive).

79. The IMM’s market concentration test, a C4 concentration test, measures the quantity of supply controlled by different participants. Market concentration is important because, as fewer suppliers control larger shares of the market, the level of competitiveness in that market tends to decrease, all things being equal. After performing its C4 concentration test, and finding that the four largest participants had 70 percent market share, the IMM states that “supply in the Program was fairly concentrated across different participants” but does not explain the significance of the 70 percent threshold or why it concluded that, at that level, the auction was uncompetitive.

80. Although the IMM used a C4 concentration test, when testing for structural market power, the Commission’s preferred concentration test is the Herfindahl-Hirschman Index (HHI),<sup>157</sup> which is the sum of the squares of the market shares of each market participant.<sup>158</sup> Based on the market share figures that the IMM includes in its report, the

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<sup>155</sup> *Cal. ex rel. Harris v. FERC*, 784 F.3d 1267, 1274-75 (9th Cir. 2015).

<sup>156</sup> *Blumenthal*, 552 F.3d at 885.

<sup>157</sup> See, e.g., *Order Reaffirming Commission Policy and Terminating Proceeding, Analysis of Horizontal Market Power Under the Federal Power Act*, 138 FERC ¶ 61,109, at PP 4, 7, 55-56 (2012) (Analysis of Horizontal Market Power); see also U.S. Dept. of Justice & Federal Trade Commission, “Horizontal Merger Guidelines” (1992), as revised (1997). The Federal Trade Commission and the Department of Justice also use the HHI.

<sup>158</sup> *Accord* Potomac Economics, 2016 Assessment of the ISO New England Electricity Markets 2 (June 2017) (stating, “Herfindahl-Hirschman Index (‘HHI’) - This is a standard measure of market concentration calculated by summing the square of each participant’s market share.”), <https://www.iso-ne.com/static-assets/documents/2017/08/iso-ne-2016-som-report-full-report-final.pdf>.

Program's HHI is 1,462,<sup>159</sup> indicating a moderately concentrated, but not a highly concentrated, market.<sup>160</sup>

81. The second test performed by the IMM to determine whether participants had market power is the RSI test. In the RSI test, the IMM assumes that ISO-NE would attempt to procure the maximum quantity permissible under the Program, 2.4 million MWh. In this case, since the total supply offered into the Program was less than 2.4 million MWh,<sup>161</sup> the IMM's analysis shows that all participants were pivotal and, therefore, that structural market power existed (i.e., the auction was structurally uncompetitive).

82. Importantly, the IMM's assumed procurement level significantly impacts the results of the RSI test. The IMM justifies the use of 2.4 million MWh in this test, stating that the "quantity demanded is required to calculate the RSI metric. The ISO did not clearly specify a 'demand curve' for this auction, which would reflect the sensitivity between price and quantity. Instead, ISO-NE stated that 'up to 2.4 [million] MWh' of [winter reliability service] for each of the winter months would be procured, based on its reliability analysis."<sup>162</sup> The IMM states that, with no additional specification of price sensitivity provided by ISO-NE, it is reasonable to assume that participants interpreted 2.4 million MWh per month as the target demand ISO-NE would seek to meet.

83. Because the auction rules specify that 2.4 million MWh was the maximum quantity that ISO-NE could have purchased, the IMM effectively performs the RSI test assuming the maximum possible procurement quantity, which is the procurement quantity most likely to lead to a conclusion that market power existed. However, it

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<sup>159</sup> IMM Report at 10-11, 13, tbl. 3.1. The market shares (in percentage terms) of Participants A through H are 22.6 (A); 21.9 (B); 14.0 (C); 10.2 (D); 7.6 (E); 6.9 (F); 6.0 (G); and 5.5 (H). Squaring these values and summing them yields an HHI of 1462. Even if the market share of "all others" (5.2%) was assigned to a single firm, it would only add 27 to the HHI figure and it would remain in the moderately concentrated range.

<sup>160</sup> See Analysis of Horizontal Market Power, 138 FERC ¶ 61,109 at P 8 (including a table that indicates HHI thresholds for unconcentrated, moderately concentrated, or highly concentrated markets). In the table, the "1992 guidelines" remain in effect today and these identify unconcentrated markets have an HHI of less than 1000, moderately concentrated markets have an HHI ranging from 1000-1800, and highly concentrated markets have an HHI of greater than 1800.

<sup>161</sup> Total supply offered into the auction was 2.29 million MWh. Ethier 2017 Testimony at 9.

<sup>162</sup> IMM Report at 12.

would also have been reasonable to use other assumptions that do not lead to a finding of structural market power. For example, assuming a lower procurement level (e.g., assuming 1.95 million MWh, which the IMM used in different test – a test for the exercise of market power) could also reasonably lead to different conclusions regarding the presence of structural market power.<sup>163</sup>

84. As discussed above, in order to test for structural market power in the Winter Reliability Program's auction, the IMM must choose which tests to perform, what assumptions to use in those tests, and then what thresholds to apply to the test results. While we find that the IMM's methods, assumptions, and thresholds are reasonable, this is not necessarily the only reasonable approach to testing for structural market power. In considering the larger question of whether there were excessive profits resulting from the exercise of market power, it is important to understand and examine the methods, assumptions, and thresholds the IMM uses in order to understand that using different methods, assumptions, and thresholds could lead to a different conclusion for these particular tests of structural market power.

e. **Test for the Exercise of Market Power: ISO-NE  
Justification of Auction Clearing Price**

85. Separate from the IMM's two tests for structural market power (covered above) both the IMM and ISO-NE test for the exercise of market power. Both use largely the same methods, model, and assumptions to test for the exercise of market power. ISO-NE's analysis: (1) utilizes a model created by the IMM; (2) adopts the IMM's competitive, cost-based supply curve; and (3) applies the IMM's same 25% adder to account for the fact that, according to the IMM, participants did not have certain information available to estimate their expectation of the marginal bid with precision and thus were likely to adjust their bid prices upward to compensate.<sup>164</sup> The primary difference between these two analyses are the different procurement levels that the

IMM and ISO-NE assume to estimate an expected marginal bid.<sup>165</sup> As a result of using two different procurement levels, the IMM and ISO-NE arrived at different marginal bids

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<sup>163</sup> Assuming a lower procurement level such as 1.95 million MWh would have resulted in a greater quantity of "residual supply," and, in turn, an RSI test result suggesting the market was more competitive relative to the test result that uses 2.4 million MWh.

<sup>164</sup> See IMM Report at page 21 for discussion of the 25% adder for uncertainty.

<sup>165</sup> Based on their different procurement level assumptions, the IMM calculates an



that they used to evaluate whether market power was exercised. We find that ISO-NE has supported its use of a 2.25 million MWh procurement level in its analysis, yielding an expected marginal bid of \$31.08/MWh-month. Since all of the accepted bids in the auction were below \$31.08/MWh-month, we affirm ISO-NE's conclusion that, based on an assumed procurement level of 2.25 million MWh, there is "no evidence of the exercise of market power."<sup>166</sup> Below, we discuss the relevance of the different procurement levels in the analyses, why we find that that ISO-NE's procurement assumption is more consistent with how participants would have approached the auction, and then why affirmation of this procurement level reasonably leads to the conclusion that market power was not exercised.

86. In their tests for the exercise of market power, the IMM and ISO-NE need to assume a procurement quantity. The IMM uses a procurement level of 1.95 million MWh, (i.e., the actual quantity procured in the auction)<sup>167</sup> while ISO-NE uses 2.25 million MWh, (i.e., the highest priced data point on the IMM's cost-based supply curve).<sup>168</sup> Figure 1, immediately below, illustrates how the different assumed procurement levels cause the IMM and ISO-NE to arrive at different expected marginal bids.

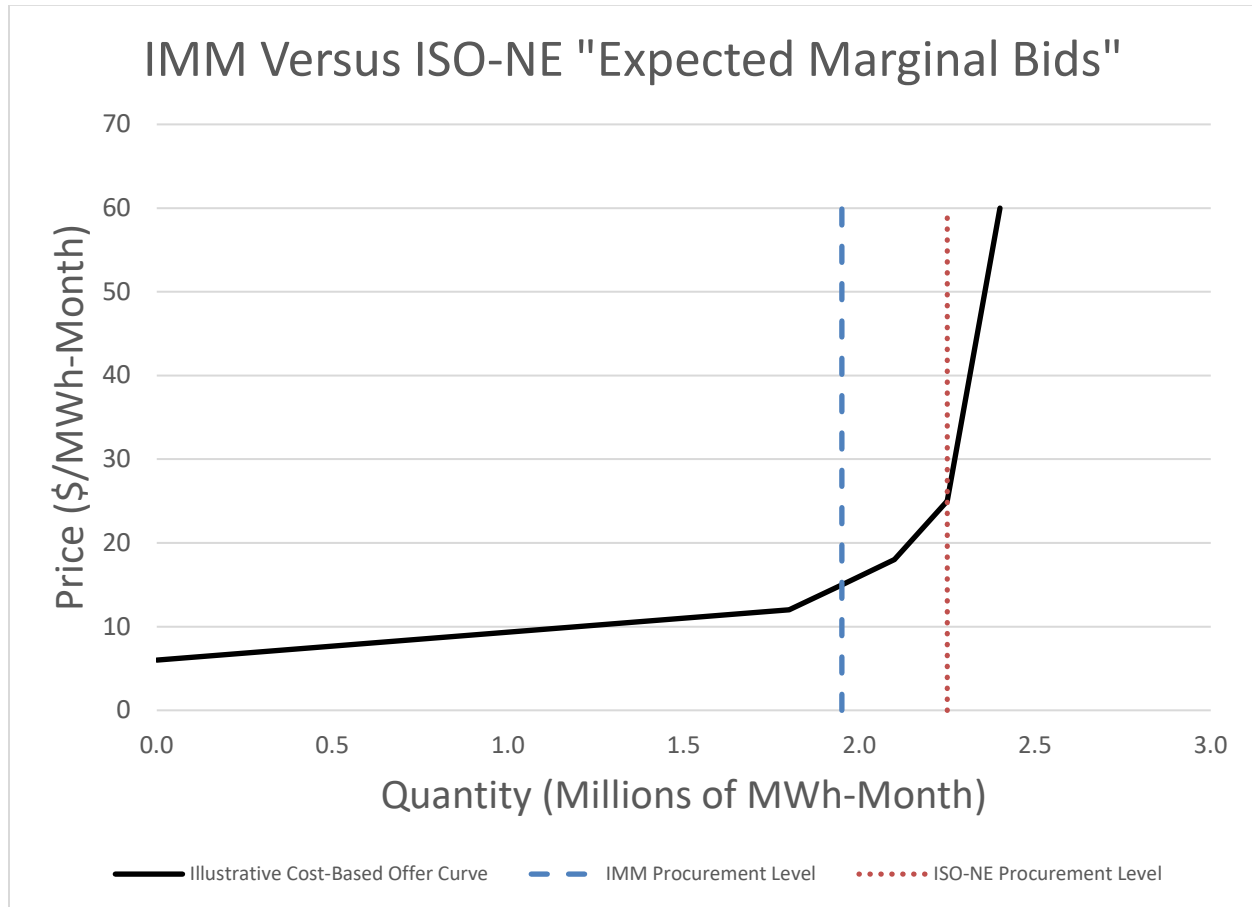
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expected marginal bid of \$18.85/MWh-month, while ISO-NE calculates an expected marginal bid of \$31.08/MWh-month. *See* Ethier 2017 Testimony at 9-10 (\$31.08 = \$24.86 plus a 25% adjustment).

<sup>166</sup> *Id.* at 10 ("Using a purchase quantity nearer, but still below, [ISO-NE's] stated goal shows no evidence of the exercise of market power.").

<sup>167</sup> *See* IMM Report at 19.

<sup>168</sup> Ethier 2017 Testimony at 9.

**Figure 1**

87. The IMM states that it assumed a procurement quantity of 1.95 million MWh because that was the actual quantity procured in the auction. However, we find that this is not necessarily a reasonable assumption because this quantity can only be known in retrospect (i.e., known in a 2017 analysis looking back at the 2013 auction results). While the IMM knows this quantity in 2017, participants could not have anticipated this procurement level prior to the August 2013 Second Auction, thus it is not a reasonable assumption to use when evaluating bidder behavior in this auction (i.e., it is not reasonable to use when evaluating whether participants exercised market power in this auction). Further, in its report, the IMM even states that there is “no optimal demand value to use when assessing the expected highest bid that would have been accepted to meet the demand *from the perspective of participants in the Program.*”<sup>169</sup> However, that is exactly what this assumption in the test for the exercise of market power is intended to represent: the procurement expectation from the perspective of the participants.<sup>170</sup>

<sup>169</sup> See IMM Report at 19 (emphasis in original).

<sup>170</sup> The IMM’s acknowledgment does not make its 1.95 million MWh assumption

88. Rather than evaluating bidder behavior using the auction's actual procurement level, we find it is more appropriate to perform the analysis as ISO-NE did, by choosing a procurement quantity based on the information that participants had in 2013, prior to the auction. In 2013, prior to the First Auction,<sup>171</sup> ISO-NE specified in its Program Rules Filing that it would procure "up to" 2.4 million MWh of the winter reliability service.<sup>172</sup> Following an unsuccessful First Auction, ISO-NE submitted the Program Rules Amendments Filing where it stated that "the bids received [during the First Auction] were inadequate, totaling only 1.415 million of the 2.4 million MWh sought"<sup>173</sup> and that, based on conversations with stakeholders, ISO-NE was modifying the program rules to relax the penalty structure in an attempt to increase generator participation in a Second Auction.<sup>174</sup> Based on the information provided by ISO-NE in these two filings, it is reasonable to conclude that ISO-NE "sought" 2.4 million MWh of the winter reliability service thus, we agree with ISO-NE that going into the Second Auction, participants would have bid with the expectation that ISO-NE would attempt to procure near that target.<sup>175</sup>

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unreasonable, it simply recognizes that there are other reasonable assumed procurement levels at or below 2.4 million MWh.

<sup>171</sup> Recall that ISO-NE ended the First Auction on July 30, 2013, prior to submitting the Program Rules Amendments Filing, explaining that the program participation in the first auction was inadequate, so it was modifying the program rules before conducting the Second Auction in August 2013 with the hope of attracting greater levels of participation.

<sup>172</sup> Program Rules Filing at 1.

<sup>173</sup> Kirby Test. at 2.

<sup>174</sup> *Id.* at 3.

<sup>175</sup> See Ethier 2017 Testimony at 8-9, 12 ("Using the higher [procurement quantity than the quantity actually procured in the auction] is appropriate if that was a reasonable expectation by market participants. Given [ISO-NE's] stated target of 2.4 million MWh, using the 2.25 million MWh quantity is reasonable.").

89. We find that ISO-NE's assumed procurement level of 2.25 million MWh is more reasonable for the purposes of this analysis. Although protesters assert that the IMM's assumed procurement level is reasonable and ISO-NE's assumed procurement level is not,<sup>176</sup> we disagree – both are reasonable assumptions. However, we find that ISO-NE's assumed procurement level likely better estimates how participants in this auction would have approached their bid preparation than the IMM's lower assumed procurement level. Accordingly, we affirm the use of ISO-NE's assumption in this regard.

90. To explain how we move from our affirmation of ISO-NE's 2.25 MWh procurement level to a finding that market power was not exercised we will describe the steps in detail. The cost-based supply curve used in the analysis<sup>177</sup> intersects with a procurement level of 2.25 million MWh at a price of \$24.86/MWh-month. After identifying this point of intersection at, ISO-NE adjusts it upward by 25% to \$31.08/MWh-month, to account for the fact that, according to the IMM, participants did not have certain information available to estimate their expectation of the marginal bid with precision and thus were likely to adjust their bid prices upward to compensate.<sup>178</sup> We agree with ISO-NE that there is no evidence of the exercise of market power when using \$31.08/MWh-month as the level for the expected marginal bid and no accepted bids exceeded \$31/MWh-month. In other words, any bids at or below \$31.08/MWh-month were reasonably priced, and no accepted bids from the auction exceeded that price; therefore, all accepted bids were reasonable.<sup>179</sup> We therefore agree with ISO-NE that the exercise of market power has not been sufficiently demonstrated to warrant modification of Program payments.<sup>180</sup>

**f. Participant Behavior**

91. As discussed above, a finding that a market is structurally uncompetitive is not alone sufficient evidence to conclude that market power was exercised. We now turn to

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<sup>176</sup> See Mass AG Protest at 5; TransCanada Protest at 11.

<sup>177</sup> This is the cost-based supply curve estimated by the IMM and the same curve used by both the IMM and ISO-NE in their analyses to determine whether market power was exercised.

<sup>178</sup> See IMM Report at 20-21. We note that, in ISO-NE's energy market, a Constrained Area Conduct test evaluates whether a resource's offer exceeds its reference level by the lower of \$25/MWh or 50%. Tariff, § III, app. A, § III.A.5.5.2.2 (26.0.0).

<sup>179</sup> Ethier 2017 Testimony at 10.

<sup>180</sup> *Id.* at 2.

market design rules and other factors restraining against the potential exercise of market power.<sup>181</sup>

92. First, as discussed above, it is possible that the methods, assumptions, and thresholds utilized by the IMM to conclude that structural market power existed are conservative and the use of less conservative – but still reasonable – methods, assumptions, and thresholds would have found that there was no structural market power.

93. Second, working under the assumption that there was indeed structural market power, there is no conclusive evidence that participants knew they had structural market power; therefore, participants would have bid competitively. This is particularly likely given that the Winter Reliability Program presented a new product market with no prior auctions, making it more difficult to determine which other oil-fired generators would choose to participate and then what quantity of service each would bid (to cover their respective costs and include profits sufficient to warrant their participation in the auction). In its report, the IMM states that “participants were likely aware that they had market power due to the public knowledge that [the First Auction] failed to attract sufficient supply to meet the target procurement.”<sup>182</sup> However, this statement does not account for the fact that the explicit purpose of the Program Rules Amendments Filing (submitted after the First Auction failed to elicit sufficient supply) was to increase the quantity of supply offered into the auction and that, if the quantity supplied increases, so does the competitiveness of the auction, all things being equal.<sup>183</sup> In fact, participation did increase from 1.415 million MWh offered into the First Auction to 2.29 million MWh offered into the Second Auction.<sup>184</sup> The rule changes and the associated significant increase in supply offered into the auction (a greater than 50% increase in supply offered

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<sup>181</sup> The IMM concludes that 75% of the supply offered did not attempt to exercise market power but the remaining 25% “included sufficiently high markups to raise concerns that participants submitting bids for this supply may have exercised market power.” IMM Report at 14. In contrast, ISO-NE finds that 89% of submitted offers have modified offer price markups of \$0 or less, suggesting that “there was no price effect due to non-competitive bidding by participants in the program.” Ethier 2017 Testimony at 10.

<sup>182</sup> IMM Report at 2.

<sup>183</sup> In its Program Rules Amendments Filing, ISO-NE stated that it would attempt to increase the quantity of supply in the auction by increasing program flexibility, reducing regulatory risk, and revising the penalties for the oil inventory service and stakeholders had indicated that their program participation would increase if participant risks were reduced. Kirby Test. at 3-6.

<sup>184</sup> *Id.* at 2; Bid Results Filing at 3.

relative to the First Auction) suggests that the Program revisions introduced before the Second Auction significantly increased both participation and the competitiveness in that Second Auction.

94. Third, participants faced uncertainty about the demand side of the market. That is, it is reasonable to assume that participant behavior was sufficiently restrained by the auction rules that provided ISO-NE with broad discretion to adjust the procurement level, which created uncertainty for participants trying to estimate the demand side of the market. The demand side of the market in this auction includes: (1) ISO-NE's unspecified level of price-sensitivity at different procurement quantities (i.e., ISO-NE did not specify a demand curve for the auction) and (2) the uncertainty surrounding the value ISO-NE placed on the non-cost reliability factors associated with different generators. We further explain demand side uncertainty in this auction below.

95. ISO-NE's market design choice to not specify a demand curve<sup>185</sup> presented participants with a situation similar to the decisions they must make in competitive markets. When participants face competition, reasonably priced bids are the result of the risk that competition may undercut an unreasonably high bid. In the same way, when participants faced a single, price-sensitive buyer<sup>186</sup> with broad discretion to set the procurement level anywhere *at or below* 2.4 million MWh, participants faced a similar risk (i.e., the possibility that ISO-NE could reject an unreasonably high bid). Although the total quantity offered in the auction was 2.29 million MWh, ISO-NE exercised its discretion to procure only 1.95 million MWh because, in its judgment, the tradeoff for a higher procurement level was not worth the additional cost.<sup>187</sup> ISO-NE selected the

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<sup>185</sup> In other ISO-NE markets, such as its Forward Capacity Market, the parameters used to specify the demand curve are filed with the Commission and known by participants before the auction (i.e., after the auction's bid submission stage ISO-NE cannot move the demand curve after seeing participants' bids). Tariff section III.13.2.2.1 covers the process for setting demand curve parameters.

<sup>186</sup> There is evidence that ISO-NE was a price-sensitive buyer. *See* Program Rules Order, 144 FERC ¶ 61,204 at P 32 ("Furthermore, ISO-NE may purchase less than the full 2.4 million MWh, and ISO-NE has stated that it may opt to do so if costs are very high"). *See also* Ethier-Brandien 2013 Testimony at 29 ("[ISO-NE] is not required to purchase the entire 2.4 million MWh and may exercise its discretion to purchase less."). Further, ISO-NE's decision to procure 1.95 million MWh (when 2.29 million MWh were offered) suggests that, in practice, ISO-NE treated 2.4 million MWh as a maximum rather than a target procurement level, and ISO-NE's price-sensitivity allowed it to procure less than the maximum quantity.

<sup>187</sup> While the rejected set of bids were less competitive, it cannot be assumed that they included uncompetitive or excessive profit margins. Generally speaking, these bids

\$31/MWh-month cutoff point because the bids that it procured at \$31/MWh-month and below were sufficient to meet its reliability needs during the winter, and procurement of additional service would not be a prudent use of consumer payments.<sup>188</sup> When accepting the Program Rules Filing and Bid Results in 2013, the Commission did so with the understanding that a price-sensitive ISO-NE (acting as a proxy for consumers on the demand side of the market) could utilize its discretion in setting the procurement level and managing Program costs. In turn, ISO-NE's discretion could disincite participants from including unreasonably high (i.e., excessive) profit margins in their bids.<sup>189</sup> Further, the fact that ISO-NE was able to select the procurement level *after* seeing all of the bids from participants gave ISO-NE an advantage over sellers, who had little information to judge which procurement level ISO-NE would choose. ISO-NE also had discretion to value the non-cost reliability factors provided by different resources when selecting resources in the auction. This discretion created uncertainty for participants because ISO-NE's use of non-cost reliability factors to select bids meant that participants could not know with precision what value ISO-NE would place on their service versus the service provided by their competitors. As a result, participants would tend to bid closer to their estimated costs of providing the service.

96. Together, ISO-NE's discretion to adjust the procurement level, participants' uncertainty about the costs and bidding strategy of their competitors, and ISO-NE's uncertain price-sensitivity when valuing the non-cost reliability factors provided by different resources are all factors that would tend to cause rational participants to submit bids closer to their own costs because, when attempting to secure profits in the auction, including excessive profit margins in their bids could result in a participant securing reduced profits or no profits at all. Therefore, it is reasonable to conclude that these factors in ISO-NE's Winter Reliability Program market design would have "restrained

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would have included expected costs, risk premiums, and profit margins. Therefore, higher bids could be the result of larger profit margins, but they could also reflect higher expected costs or larger risk premiums because some participants would be more risk averse than others.

<sup>188</sup> See Bid Results Compliance Filing at 4; *see also* Ethier-Brandien 2013 Testimony at 29; Program Rules Order, 144 FERC ¶ 61,204 at P 32.

<sup>189</sup> See Program Rules Order, 144 FERC ¶ 61,204 at PP 31-32 (footnote omitted) ("ISO-NE's bid selection criteria allow it to consider factors of location, performance history, and flexibility, as well as cost [and] to the extent that commenters are concerned that ISO-NE will use its discretion to procure energy at a total cost far exceeding the estimate mentioned in the filing, we note that [ . . . ] ISO-NE may purchase less than the full 2.4 million MWh, and ISO-NE has stated that it may opt to do so if costs are very high.").

the suppliers in their confidential bid offers.”<sup>190</sup> The effectiveness of these deterrents can be judged by ISO-NE’s analysis and record evidence identifying \$31.08/MWh-month as a competitive benchmark price and that all selected bids in the auction were below this competitive benchmark price.

The Commission orders:

ISO-NE’s 2017 Compliance Filing is hereby accepted for filing, as discussed in the body of this order.

By the Commission. Commissioner Danly is not participating.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

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<sup>190</sup> *TransCanada*, 811 F.3d at 13.



## Appendix A

**A List of ISO-NE Filings and Commission Orders Relating to the 2013-2014 Winter Reliability Program**

<b>Date</b>	<b>Party</b>	<b>Docket No.</b>	<b>Description</b>
June 28, 2013	ISO-NE	ER13-1851-000	Program Rules Filing
August 9, 2013	ISO-NE	ER13-1851-001	Program Rules Amendments Filing
August 12, 2013	ISO-NE	ER13-1851-002	Program Rules Fixes to Typographical Errors in Amendments
August 26, 2013	ISO-NE	ER13-2266-000	Bid Results Filing
September 16, 2013	FERC	ER13-1851-000/1/2	Program Rules Order (conditional acceptance)
October 7, 2013	FERC	ER13-2266-000	Bid Results Order (conditional acceptance)
October 15, 2013	ISO-NE	ER13-1851-004	Program Rules Compliance Filing
October 15, 2013	ISO-NE	ER13-2266-001	Bid Results Compliance Filing
November 13, 2013	FERC	ER13-1851-004	Program Rules Order (final acceptance)
November 13, 2013	FERC	ER13-2266-001	Bid Results Order (final acceptance)
April 8, 2014	FERC	ER13-1851-005	Program Rules Rehearing Order
April 8, 2014	FERC	ER13-2266-002	Bid Results Rehearing Order
August 8, 2016	FERC	ER13-2266-003	Order Requiring ISO-NE Review of Auction Results (Order on Remand)
January 24, 2017	ISO-NE	ER13-2266-004	ISO-NE (2017) Compliance Filing Following Review of Auction Results