

November 2, 2012

**Submitted Electronically**

Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street N.E.  
Washington, D.C. 20426

Re: New York Independent System Operator, Inc.'s Proposed Amendments to its Market Power Mitigation Measures revising Mitigation Measures for 10-Minute Non-Synchronized Reserves and New York City Day-Ahead Market Spinning Reserves; Docket No. ER13-\_\_\_\_ - \_\_\_\_.

Dear Ms. Bose:

The New York Independent System Operator, Inc. ("NYISO") submits this filing pursuant to Section 205 of the Federal Power Act<sup>1</sup> to propose amendments to its Market Administration and Control Area Services Tariff ("Services Tariff") that provide for the incremental removal of the \$2.52 reference level cap<sup>2</sup> on 10-Minute Non-Synchronized reserves and the Bid limit of \$0/MWh<sup>3</sup> on New York City ("NYC") Day-Ahead Market ("DAM") Spinning Reserves.<sup>4</sup> The incremental process for eliminating both these limits will increase each limit over one to two years prior to removing the limits altogether. In this filing, the NYISO proposes to implement the first step in the process - raising both limits to \$5.00/MWh.

Dr. LeeVanSchaick explains in his affidavit, attached hereto, that the current limits on the reserves markets restrict the opportunity for generators to reflect their costs for reserves offered in the Energy Market and to respond efficiently to market incentives.<sup>5</sup> Increasing, and eventually removing, these limits should increase market efficiency by allowing generators to respond to market incentives in their ancillary services offers. In addition, removing these

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<sup>1</sup> 16 U.S.C. § 824d.

<sup>2</sup> Services Tariff § 23.3.1.4.5.

<sup>3</sup> Services Tariff § 23.5.3.3.

<sup>4</sup> Capitalized terms that are not otherwise defined herein shall have the meaning specified in the Services Tariff.

<sup>5</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 7-8.

limits should improve convergence of Day-Ahead and Real-Time Operating Reserve prices in peak load hours. The gradual increasing of the limits prior to complete removal will protect NYISO customers from unforeseen market impacts and provide the NYISO's Market Monitoring Unit time to evaluate the markets as Day-Ahead Operating Reserve offer prices increase.

## **I. LIST OF DOCUMENTS SUBMITTED**

The NYISO submits the following documents:

1. This filing letter;
2. An affidavit of Pallas LeeVanSchaick, PhD., of Potomac Economics, the NYISO's Market Monitoring Unit ("Attachment I");
3. A clean version of the proposed revisions to the NYISO's Services Tariff ("Attachment II"); and
4. A backline version of the proposed revisions to the NYISO's Services Tariff ("Attachment III").

## **II. COPIES OF CORRESPONDENCE**

Correspondence concerning this filing should be served on:

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## **III. BACKGROUND AND JUSTIFICATION**

The NYISO's Market Monitoring Unit ("MMU") recommended that the NYISO modify two mitigation provisions that may limit competitive reserve offers in the Day-Ahead Market. According to the MMU, the two existing mitigation provisions lead to Day-Ahead

clearing prices being set below competitive levels in certain hours.<sup>6</sup> If suppliers were able to reflect competitive conditions in their offers, Day-Ahead prices would increase and result in more consistency between Day-Ahead and Real-Time clearing prices. Such consistency would then lead to more efficient commitment and scheduling of resources in the Day-Ahead Market.<sup>7</sup> Dr. LeeVanSchaick's affidavit explains that the current mitigation measures are not sufficiently flexible to allow reserve suppliers to raise their offer prices when it would be justifiable in a competitive market.<sup>8</sup>

The first mitigation provision caps a generator's reference level for 10-Minute Non-Synchronized reserves at \$2.52/MWh.<sup>9</sup> The reference level cap originated as the remedy for a defined market flaw in the non-synchronous reserves market that occurred between January and March 2000.<sup>10</sup> In early 2000, the NYISO observed bidding patterns into the 10-Minute Non-Synchronized reserve markets east of its central east transmission constraint indicating the exercise of market power. In response, the Commission granted the NYISO's request for a \$2.52 bid restriction on 10-Minute Non-Synchronized reserves.<sup>11</sup> In an order issued on November 8, 2000, the Commission extended the bid cap until such time as the NYISO is able to show that "the competitive state of the non-spinning reserve market has reached a level of improvement that would warrant a lifting of, or increase in, the existing \$2.52 cap."<sup>12</sup> By 2003, competitive conditions had significantly improved and the bid cap was transformed into the \$2.52 reference level cap.<sup>13</sup> Additional significant improvements have been made to the 10-Minute Non-Synchronized reserve market since that time. Most importantly, 10-Minute Non-Synchronized reserve capability has increased substantially in the New York Control Area ("NYCA").<sup>14</sup> "Many new combined cycle and peaking generators have been built in Eastern New York, adding approximately 1.8 GW of additional Spinning Reserve and 10-Minute Non-Synchronized Reserve capability."<sup>15</sup> The NYISO's Services Tariff also now includes physical withholding measures that should prevent Generators from failing to offer this product. These measures include bright line conduct<sup>16</sup> and impact thresholds<sup>17</sup>, that seek

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<sup>6</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 11.

<sup>7</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 12.

<sup>8</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 11.

<sup>9</sup> See Docket No. ER03-836-000.

<sup>10</sup> See Docket No. ER00-3591.

<sup>11</sup> *New York Independent System Operator, Inc.*, Order on Tariff Filing and Complaints, 91 FERC ¶ 61,128 (2000).

<sup>12</sup> *New York Independent System Operator, Inc.*, Order Extending Bid Cap, Acting on Tariff Sheets, and Establishing Technical Conference, 93 FERC ¶ 61,142 at p. 61,437 (2000).

<sup>13</sup> *New York Independent System Operator, Inc.*, Order Conditionally Accepting Proposed Tariff Revisions, 104 FERC ¶ 61,002 (2003).

<sup>14</sup> See also Affidavit of Dr. Pallas LeeVanSchaick at P 7.

<sup>15</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 13 and 20.

<sup>16</sup> Services Tariff § 23.3.1.1.

<sup>17</sup> Services Tariff §23.3.2.

to identify electric facilities not offering to sell or schedule their output or provide services to the NYISO market. As a result, the NYISO and its MMU believe the remedy designed in 2003 is no longer necessary and the 10-Minute Non-Synchronized Reserve market will perform competitively without a reference level cap.<sup>18</sup> In addition, 10-Minute Non-Synchronized reserve suppliers will benefit from the ability to adjust Day-Ahead offers in response to market signals. Once the reference level cap (of \$2.52/MWh) is raised, the NYISO will calculate individual reference levels for generators that offer this product in accordance with the NYISO's existing Market Mitigation Measures, Attachment H of the Services Tariff ("Market Mitigation Measures").<sup>19</sup> The NYISO's Market Mitigation Measures methods for calculating reference levels include: (1) by the lower of the mean or the median of a Generator's accepted Bids;<sup>20</sup> (2) in consultation with the Market Party submitting the Bid or Bids at issue;<sup>21</sup> or (3) if necessary, the NYISO will determine a reference level on the basis of its own estimate of the Generator's costs or an appropriate average of competitive bids of similar facilities.<sup>22</sup>

The second mitigation provision requires NYC generators to offer zero (\$0/MWh) for their Spinning Reserves. This requirement predates the formation of the NYISO and originates in a New York State Public Service Commission ("NYSPSC") order<sup>23</sup> that required defined levels of 10-minute reserve to be located in NYC.<sup>24</sup> This rule was the basis for the provision in the Consolidated Edison of NY divestiture agreements that divested generation was required to be offered for dispatch by the NYISO Security Constrained Dispatch program.<sup>25</sup> As discussed above, substantial additional Spinning Reserve capacity has been added to the NYCA since 2003<sup>26</sup> and Spinning Reserves suppliers will also benefit from the ability to adjust Day-Ahead offers in response to market signals. The NYISO is proposing to remove the requirement that generators must offer zero (\$0/MWh) from Section 23.5.3.3 of its Services Tariff. Spinning Reserves suppliers must continue to offer this product even after the revisions proposed in this filing take effect. Once the Bid limit (of \$0/MWh) is raised, the NYISO will calculate individual reference levels in accordance with the NYISO's existing Market Mitigation Measures for generators that offer this product.<sup>27</sup>

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<sup>18</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 12 and 22.

<sup>19</sup> See Services Tariff § 23.3.1.4.

<sup>20</sup> See Services Tariff § 23.3.1.4.1.1 (accepted Bids in competitive periods over the most recent 90 day period for which the necessary input data are available to the ISO's reference level calculation systems).

<sup>21</sup> See Services Tariff § 23.3.1.4.1.3 (The reference level for a Generator's Energy Bid is intended to reflect the Generator's marginal costs).

<sup>22</sup> See Services Tariff § 23.3.1.4.2 (this section applies if a reference level cannot be determined using method 1 or 2 due to insufficient data).

<sup>23</sup> Section 23.5.3.1 is a reliability based requirement in response to NYSPSC Case No. 27302 that required specified levels of 10-minute reserve to be located and available in NYC.

<sup>24</sup> See generally FERC Docket No. ER98-3169.

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

<sup>26</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 13 and 20.

<sup>27</sup> See Services Tariff § 23.3.1.4.

The NYISO and the MMU believe that NYISO's Market Mitigation Measures limit the potential risk of the revisions proposed in this filing.<sup>28</sup> The existing conduct-and-impact framework will apply to these reserve markets upon the effective date of this filing and will limit behavior that could have a substantial impact on clearing prices.<sup>29</sup> The conduct-and-impact framework consists of two parts. First, the conduct test identifies Operating Reserve suppliers that increase their offer prices by a specified amount (the lesser of \$50 per MWh or 300 percent) above their reference level.<sup>30</sup> Second, the impact test estimates the effect of such conduct on clearing prices, and if the impact is estimated to be greater than \$100 per MWh or 200 percent, the conduct will be mitigated.<sup>31</sup> The NYISO's Market Mitigation Measures will protect these reserve markets from non-competitive behavior in the unlikely event that either reserve market does not perform competitively going forward.<sup>32</sup> The gradual implementation of these proposed revisions will provide additional protection to the NYISO customers. If the increased limits have negative effects on the market, the MMU will be able to recommend remaining at a certain limit or reverting back to the prior limit.<sup>33</sup>

The NYISO reviewed the market power impacts of removing the reference level cap and spinning reserves Bid limit using the Herfindahl-Hirschman Index ("HHI") and Pivotal Supplier/Residual Supplier Indices ("RSI").<sup>34</sup> The NYISO evaluated market conditions on an hourly basis during one high load period in the summer, July 2011, when most supplier resources were in-service and one mild load period in a shoulder season, October 2011, when a substantial share of supplier resources were on planned outages. The NYISO's HHI and RSI analysis evaluated market concentration indices for four products distinguished by summer and shoulder seasons and peak versus off-peak hours.<sup>35</sup> The four products evaluated were: (1) Spinning Reserve in Eastern New York; (2) Spinning Reserve in NYCA; (3) 10-Minute Total Reserve in Eastern New York; and (4) 10-Minute Total Reserve in NYCA. The NYISO analyzed a total of sixteen different situations.

The HHI is a standard measure of market concentration based on each supplier's market share.<sup>36</sup> The analysis showed that in most hours the average HHI values indicate a lack of concentration in the reserves markets. There is, however, some evidence of concentration in the NYC DAM Spinning Reserves market in certain low load hours. This

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<sup>28</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 21.

<sup>29</sup> *Id.*

<sup>30</sup> *Id. citing* Services Tariff §23.3.1.2.1.2.

<sup>31</sup> *Id. citing* Services Tariff §23.3.2.1.1.

<sup>32</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 22.

<sup>33</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 24.

<sup>34</sup> See NYISO "Changes to 2 Ancillary Service Mitigation Provisions" Presentation to the Market Issues Working Group, February 2, 2012, [http://www.nyiso.com/public/webdocs/committees/bic\\_miwg/meeting\\_materials/2012-02-02/AS\\_MitigationPresentation.pdf](http://www.nyiso.com/public/webdocs/committees/bic_miwg/meeting_materials/2012-02-02/AS_MitigationPresentation.pdf).

<sup>35</sup> See Affidavit of Dr. Pallas LeeVanSchaick at P 14.

<sup>36</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 15.

increased concentration results from fewer available reserve suppliers during low demand periods. The NYISO believes that the exercise of market power in these hours is unlikely. The other existing Market Mitigation Measures and the gradual removal of the \$0/MWh Bid limit are sufficient to protect the competitiveness of this reserve market. HHI statistics are not a definitive measure of potential market power; therefore, the NYISO also performed the RSI analysis to supplement the HHI results.

The Pivotal Supplier/Residual Supplier Indices evaluate whether one specific supplier is necessary to meet demand in the market. If one or more suppliers are pivotal, the market may be subject to substantial market power abuse.<sup>37</sup> The NYISO did not identify any pivotal suppliers in any hours for the Non-Synchronized or Spinning Reserves markets for either July or October 2011.<sup>38</sup> Similarly, the RSI did not indicate a cause for concern in either reserves market. As Dr. LeeVanSchaick explains, the RSI results suggest that there is limited potential for suppliers to exercise market power in these markets.<sup>39</sup>

The NYISO also conducted a Consumer Impact Analysis of this project, at the request of several stakeholders, which showed potential gains from improved efficiency and generally small increases in total load payments.<sup>40</sup> The Consumer Impact Analysis reviewed potential impacts on reliability, costs/market efficiencies, the environment, and transparency of the market. According to the analysis, no negative impacts are expected on reliability or the environment and no changes are expected to the transparency of the markets. With respect to costs and market efficiencies, the NYISO found that Day-Ahead offer prices increased slightly depending on the time of the day and the forecasted daily peak load. These slightly higher prices result in Day-Ahead reserve commitment patterns that more closely resemble the Real-Time due to better convergence of Day-Ahead and Real-Time prices. The study found a potential gain from improved efficiency because when the Day-Ahead Market more closely approximates the Real-Time operating conditions, the Real-Time Market is better positioned to respond to any unanticipated conditions.

#### **IV. PROPOSED TARIFF REVISIONS**

The NYISO proposes the following revisions to Sections 23 and 30 of its Services Tariff:

- Section 23.3.1.4.5 - revised to indicate that the reference level for 10-Minute Non-Synchronized reserves shall be the lower of (i) the amount determined in accordance with the provisions of Section 23.3.1.4.1.1, or (ii) \$5.00 per MW. Revisions also include the proposed implementation plan discussed in Section V of this filing letter.

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<sup>37</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 18.

<sup>38</sup> Affidavit of Dr. Pallas LeeVanSchaick at P 19.

<sup>39</sup> *Id.*

<sup>40</sup> See: presentation at [http://www.nyiso.com/public/webdocs/committees/mc/meeting\\_materials/2012-03-28/agenda\\_04\\_Ancillary\\_Service\\_Mitigation\\_Consumer\\_Impact\\_Analysis\\_MC.pdf](http://www.nyiso.com/public/webdocs/committees/mc/meeting_materials/2012-03-28/agenda_04_Ancillary_Service_Mitigation_Consumer_Impact_Analysis_MC.pdf).

- Section 23.5.3.3 - revised to indicate that In-City generators must Bid \$5.00 or less for the availability portion of Day-Ahead Spinning Reserves Bids. Revisions also include the proposed implementation plan discussed in Section V of this filing letter.
- Section 30.4.6.2.12 - the proposed change sets forth the Market Monitoring Unit's role in monitoring and evaluating the 10-Minute Non-Synchronized reserves and Day-Ahead Spinning Reserves markets that the NYISO administers. The proposed change also sets forth the process for the Market Monitoring Unit to recommend adjustments to the reference level cap used in Section 23.3.1.4.5 of the Market Mitigation Measures and to the must Bid limit used in Section 23.5.3.3 of the Market Mitigation Measures.

The tariff revisions proposed in this filing are submitted herewith in both clean and blackline versions.

## **V. PROPOSED IMPLEMENTATION PLAN**

The NYISO proposes to implement the removal of the \$2.52/MWh reference level cap on 10-Minute Non-Synchronized reserves and the must Bid limit of \$0/MWh on NYC DAM Spinning Reserves in three or more steps. The NYISO requests approval of all steps in this filing. As discussed below, the NYISO proposes to submit an informational compliance filing to the Commission notifying it of the effective limit at least two weeks prior to implementing a revision to the limit. The first step, proposed to be implemented on the effective date of this filing, would increase the reference level cap on 10-Minute Non-Synchronized reserves to \$5.00/MWh and increase the must Bid limit on NYC DAM Spinning Reserves to \$5.00/MWh or less. The second step would increase the reference level cap of 10-Minute Non-Synchronized reserves to \$10.00/MWh and increase the must Bid limit on NYC DAM Spinning Reserves to \$10.00/MWh or less. The third step would remove the reference level cap on 10-Minute Non-Synchronized reserves and remove the must Bid limit on NYC DAM Spinning Reserves while maintaining the requirement that Generators offer NYC DAM Spinning Reserves. The limits must be set at \$2.52/MWh or \$0.00/MWh (respectively for each reserves market), \$5.00/MWh, or \$10.00/MWh until eliminated. A description of the steps and lifting process, including the dollar limits, is included in the NYISO's proposed tariff revisions. Gradually lifting these requirements prior to their ultimate removal should minimize abrupt impacts to the markets and will allow the competitiveness of the markets to be evaluated by the MMU as the restrictions increase.

The NYISO's MMU will independently evaluate the competitiveness of both the 10-Minute Non-Synchronized reserves market and Spinning Reserves market and issue recommendations to the NYISO on when to move to the next step. The MMU does not have to raise the two limits simultaneously; the stepped removal process of the \$2.52/MWh reference level cap on 10-Minute Non-Synchronized reserves and the must Bid limit of \$0/MWh on NYC DAM Spinning Reserves will progress independently. The MMU will evaluate each market as part of its quarterly or State of the Market reports but may issue a recommendation to move between steps at any time. The scope of the MMU's evaluation will include, but not be limited to, an analysis of: (i) the competitiveness of the reserves

market and whether there is conduct that the NYISO or the MMU determines to constitute an abuse of market power; and (ii) how an adjustment to the limitation is expected to impact the convergence of day-ahead and real-time prices for that reserves market. The MMU may recommend maintaining the \$5.00/MWh limits, lowering the \$5.00/MWh limits (but not lower than \$2.52/MWh or \$0.00/MWh, respectively), or raising the \$5.00/MWh limit to \$10.00/MWh. After the second step, the MMU may recommend maintaining the \$10.00/MWh limits, lowering the \$10.00/MWh limits back to \$5.00/MWh, or removing the limit entirely. This pattern of recommendations will continue until the restrictions are completely removed. The limit in each reserves market must complete the stepping process prior to complete removal of the restriction, *i.e.* increase from \$2.52/MWh or \$0.00/MWh, respectively, to \$5.00/MWh, then to \$10.00/MWh and then be removed.<sup>41</sup>

The MMU will make its first set of recommendations within seven months of the effective date of this filing. The first evaluation for each reserves market will include data from at least one of the following months; March, April, September or October. The MMU will continue to make subsequent recommendations within six months of its latest recommendation until the limits are completely removed. The NYISO will duly consider and, absent any material change in circumstances, implement the MMU's mitigation restriction recommendation.

When, based on the MMU's recommendation, either limit will be increased, decreased or removed, the NYISO proposes to submit an informational compliance filing that includes an appropriately revised tariff section (either Section 23.3.1.4.5 or Section 23.5.3.3) specifying the limit from the options described above. The informational compliance filing will specify the limit, from the defined set of options, and include tariff revisions containing the actual limit to be in effect for the next period of time. For each revision in the selection of one of the pre-specified limits, the NYISO will include the MMU's recommendation with its compliance filings. The NYISO will also provide contemporaneous notice of its decision to Market Participants. Such notices will be provided to the Commission and Market Participants at least two weeks prior to the implementation of a revised limit. When the MMU recommends, and the NYISO implements, elimination of either restriction, the NYISO will submit a compliance filing to the Commission removing the limits specified in Section 23.3.1.4.5 or Section 23.5.3.3, respectively, from the Services Tariff and containing the appropriate corresponding revisions to Section 30.4.6.2.12.

## **VI. EFFECTIVE DATE**

The NYISO respectfully requests that the tariff revisions proposed in this filing be permitted to become effective on January 22, 2013; more than 60 days after the date of this filing. The NYISO intends to implement these revisions commencing with the January 22, 2013, Real-Time Market and the January 23, 2013, Day-Ahead Market.

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<sup>41</sup> The limits must be set at \$2.52/MWh or \$0.00/MWh (respectively for each reserves market), \$5.00/MWh, or \$10.00/MWh until eliminated.



## **VII. STAKEHOLDER APPROVAL**

The NYISO's Management Committee unanimously approved these tariff amendments on May 30, 2012, with abstentions. The NYISO Board of Directors approved these tariff amendments on July 17, 2012.

## **VIII. SERVICE LIST**

The NYISO will send an electronic link to this filing to the official representative of each of its customers, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the New Jersey Board of Public Utilities. In addition, the complete filing will be posted on the NYISO's website at [www.nyiso.com](http://www.nyiso.com).

## **IV. CONCLUSION**

WHEREFORE, for the foregoing reasons, the New York Independent System Operator, Inc. respectfully requests that the Commission accept the proposed tariff changes identified in the Attachments hereto, with an effective date of January 22, 2013.

Respectfully submitted,

/s/ James H. Sweeney

James H. Sweeney, Attorney  
New York Independent System Operator, Inc.