NYISO Management Committee Meeting Minutes December 17, 2015 10:00 a.m. – 12:00 p.m.

1. Introductions, Meeting Objectives, and Chairman's Report

The chair of the Management Committee (MC), Mr. Andrew Antinori (NYPA) called the meeting to order at 10:00 a.m. by welcoming the members of the MC. Members identified themselves and attendance was recorded. A quorum was determined.

2. Approval of Meeting Minutes

Motion #1:

The Management Committee (MC) approves the October 28, 2015 meeting minutes. *The motion passed unanimously by show of hands*

3. President/COO Report

Mr. Brad Jones (NYISO) recognized Ms. Deidre Altobell (Con Edison) for her leadership as the 2015 MC chair. In addition, he introduced the MC to the NYISO's vice president of external affairs, Mr. Kevin Lanahan (NYISO). Mr. Jones announced that the NYISO deployed CTS with New England and added new functionality to the NYISO website during December.

Mr. Jones reported that the Board of Directors recommended proposed changes to their compensation and that the last changes occurred three years ago. The annual retainer fee would increase to \$55,000 from \$50,000. Stakeholders can submit comments to the NYISO before the Board acts on the proposed changes. In response to a question from Mr. Rich Bolbrock (MEUA), Mr. Jones said the Board also receives several retainer fees and they are as follows:

- \$3,000 per meeting
- \$2,000 per committee meeting
- \$1,500 per conference call
- \$45,000 for the Board chair
- \$10,000 for the Board vice chair
- \$10,000 for Board committee chair

Mr. Rob Fernandez (NYISO) reported that the NYISO recently learned of two unexpected Board vacancies in early 2016 due to upcoming departures of Mr. Daniel More and Mr. Erland Kailbourne. Mr. More will resign in January 2016 because he decided to serve on the board of a company that controls a Market Participant. Mr. Kailbourne will depart in April 2016 because of a family member's business interest. Mr. Kailbourne does not have a prohibitive affiliation right now, but wants to avoid the appearance of a prohibitive affiliation. As a result, the Board Selection Sub Committee (BSSC) that was formed to select a candidate to replace Mr. Tom Ryan will instead be selecting two candidates to replace Messrs. More and Kailbourne. Mr. Ryan has agreed to continue serving on the Board in order to help maintain the Board's institutional knowledge.

Mr. Ruben Brown (Energy Spectrum and Northeast Clean Heat and Power Initiative) said that he was on the original BSSC that selected Mr. Kailbourne and the rest of the original NYISO Board of Directors. Mr. Brown asked the MC to give a special thanks to Mr. Kailbourne for his years of

service. He explained that Mr. Kailbourne worked hard to improve the NYISO over his years of service and that Mr. Kailbourne's efforts were appreciated by the MC.

Ms. Altobell said that the BSSC would search for candidates that have the same banking and markets qualifications as the people who will be departing. The BSSC will identify 12 candidates and then narrow it down to six for the Board to select two candidates. She encouraged MC members to submit candidate nominations to the BSSC by January 11, 2016. Ms. Marji Phillips (Direct Energy) noted that PJM is also looking for two Board members and said it may be difficult for NYISO to find a candidate due to competition.

Mr. Gonzales reviewed the Market Operations Report highlights and reported that November 2015 was the lowest priced month for energy in the history of ISO, with a price of \$24.80/MWh. In the review of the Operations Performance Report, Mr. Gonzales noted that the increase in statewide uplift cost resulted primarily from two factors. First, with the record low energy prices, marginal loss over-collection surpluses are reduced, which decreases the offset against uplift cost components like power supplier guarantee payments. The second factor identified was an increase in Balancing Market Congestion Residuals or BMCR costs for the month. Mr. Gonzales recalled that there were a number of very restrictive combinations of transmission outages in November scheduled to meet the Transmission Owner Transmission Solution (TOTS) work plan. These transmission outages resulted in significant reductions to cross-state transfer capability and aggravated congestion on the Central to East NY interface.

Mr. Gonzales next explained that the expected operating practice envisioned by the ISO's Broader Regional Market congestion coordination process uses the Ramapo 500kV interconnection to mitigate Central or Eastern NY area congestion for real-time market operation. However, during review of the BMCR uplift costs for November, the NYISO determined that this operating practice can aggravate western New York transmission constraints and result in BMCR uplift costs. He indicated that, in order to avoid BMCR costs related to Western NY constraints, the ISO has modified its operating practice to limit use of Ramapo 500kV interconnection congestion coordination process to receive flows that exceed the target flow to periods when the ISO does not expect the Western NY area constraints to be active.

Mr. Gonzales reported that it was important to recognize that the Western NY area constraints are impacting the historical operating flexibility of the Ramapo 500KV interconnection to mitigate Central and Eastern NY area transmission constraints. He indicated that, until a permanent transmission solution can be put in place such as what is envisioned by the Western NY public policy transmission initiative or some other physical solution, the ISO expects that the reduced operating flexibility will limit the ISO's ability to bring value to NY consumers through use of the Market-to-Market Ramapo 500kV interconnection congestion coordination process.

Lastly, Mr. Gonzales reported that the ISO's current energy market models should be improved to more accurately reflect the operation of the Ontario-Michigan phase angle regulators and that the current models do not fully reflect how actions like Ramapo 500kV interconnection congestion coordination can impact the Western NY constraints. It was reported that the ISO is exploring options to more accurately represent the operation of the Ontario-Michigan phase angle regulators with its Independent Market Monitor and that the ISO plans to discuss any improvements it develops with PJM and IESO to ensure its regional market operations remain well coordinated. Mr. Howard Fromer (PSEG) said it would be helpful for the NYISO to post Mr. Gonzales' statement with the MC meeting materials.

In response to a question from Mr. Mike Kramek (Boston Energy), Mr. Gonzales said the situation would not require any changes to the Joint Operating Agreement between NYISO and PJM.

4. New York State Resource Planning Analysis (for informational purposes) This topic was postponed.

5. Winter 2015-2016 Capacity Assessment and Winter Preparedness

Mr. Wes Yeomans (NYISO) reviewed the presentation included with the meeting material. In response to a question from Mr. Matt Cinadr (Energy Spectrum), Mr. Yeomans explained the state communication protocol, but couldn't say with certainty that all NY generators are aware of the protocol. The NYISO engaged many generators when the protocol was developed. Mr. Antinori thanked the NYISO for making the presentation and for keeping the same format for the presentations. Mr. Antinori said the winter and summer readiness reports were very useful to stakeholders.

6. Behind the Meter: Net Generation (BTM:NG) Initiative

Mr. Pradip Ganesan (NYISO) reviewed the presentation included with the meeting material. He explained that the NYISO will need to make a ministerial change to the Deliverability Interconnection Standard definition in Attachment X that was included in the posted materials to make the definition consistent with the same term that is already defined in Attachments S and Z.

Mr. Brown read the following prepared statement that had the support from the following organizations (Energy Spectrum, EnerNOC, CPower, Innoventive Energy LLC, Natural Resources Defense Council, New York University, Fordham University, Mount Sinai Medical Center, Beth Israel Health Care System, Memorial Sloan-Kettering Cancer Center, Refined Sugars, Inc., Riverbay Corporation, Northeast Clean Heat and Power Initiative, City of New York, and Multiple Intervenors) and asked that it be included in the meeting minutes:

We are encouraged that the NYISO has agreed to include within their Wholesale Market Alignment with the NY PSC REV Proceeding a plan for discussing what is needed to reduce barriers for behind the fence generator participation in utility demand response programs while enrolled as wholesale market generators. To further that purpose, we would like the minutes to note the following points:

- The NYISO will develop a complete Market design to allow BTM:NG resources to participate in Local distribution DR programs. This should be developed and presented for stakeholder vote no later than Q2-2016.
- The NYISO should include the above point along with its timeline for alignment with the NY PSC REV proceeding in its filing letter to FERC.

Mr. Michael DeSocio (NYISO) said the NYISO looks forward to working through the stakeholder process to address concerns with participation in NYTO DR programs as quickly as possible but noted that mandating a deadline does not always result in the right results.

Mr. Fromer said the supplier community raised concerns with Mr. Brown's suggestion that these resources be permitted to participate in utility demand response programs while enrolled as wholesale market generators. Mr. Fromer expressed concerns that such "double dipping" could allow a resource to be paid twice for the same service. He added that suppliers strongly object to BTM:NG receiving this revenue stream unless all generators can also be able to be paid twice for providing the same service.

Mr. Mark Younger (Hudson Energy Economics) said it was his understanding that the TOs have great authority to call on any generator to operate in order to ensure the reliability of their distribution systems. If that is not the case, it needs to be clear on what the limitations are for TOs can do on calling large scale generators as well as for BTM:NGs. If the TOs do have that authority, then offering a second payment to BTM:NG to do what they are already required to do, would be

double paying. All generators (large and small) have station load and could be able to switch over to become BTM:NG and receive the same double payments so that they are treated equally.

Mr. Cinadr said this issue began in December 2013 and thanked the NYISO staff for bringing the proposal forward.

Mr. Fromer said the grandfathering of CRIS rights for BTM:NG Resources was a controversial element and many suppliers have concerns of allowing an unknown quantity of capacity be allowed to sell service, without demonstrating that the unit is capable of providing the service. It exacerbates potential deliverability problems and harms the markets. He said capacity sales from BTM:NG are in other markets and suppliers are not opposed to them, but it is a mistake to not at least require a mechanism for them to demonstrate they are deliverable and he was disappointed the NYISO has not included that as an element. Mr. DeSocio said the NYISO received feedback on how the CRIS rights are administered throughout the stakeholder process. After serious consideration of the feedback, the NYISO developed a reasonable approach for transitioning away from and closing the grandfathering CRIS rights issue by a date certain. Once closed, all resources must go through the standard Class Year process.

Motion #2:

The Management Committee (MC) hereby approved the revisions to the Market Administration and Control Area Services Tariff and Open Access Transmission Tariff as described in the tariff revisions accompanying the presentation entitled "Behind-the-Meter Net Generation Initiative," made at the December 17, 2015 MC meeting, and recommends that the NYISO Board of Directors authorize NYISO staff to file such revisions under section 205 of the Federal Power Act. *The motion passed by majority show of hands with abstentions*

7. NYISO CSI Survey Program – 2015 Results

Dr. Don Levy (Siena College) reviewed the presentation included with the meeting material.

In response to a question, Mr. Rich Barlette (NYISO) said that NYISO laid out the new survey schedule to better coincide with the setting of the annual incentive goal process at the BPWG.

Mr. Fromer asked how the NYISO compared to its neighboring ISOs/RTOS. Mr. Levy said Siena met with the NYISO's neighbors to encourage them to replicate the NYISO's program to make the data comparable, but it was difficult to compare right now. The only apples-to-apples comparison available is the customer inquiry surveys. Mr. Fromer opined that if he was on the NYISO's Board of Directors, he would like to know how the NYISO compares to other regions in terms of customer satisfaction. Mr. Barlette noted that FERC issued a metric report that compared the different ISOs/RTOs.

8. NYISO Marketplace and JESS Sandbox Status

Mr. Matt Darcangelo (NYISO) reviewed the presentation included with the meeting material.

Mr. Fromer thanked NYISO staff for providing this new testing capability and said it would be a benefit for all market participants. It was a long overdue mechanism that other ISOs/RTOs already had and appreciated the NYISO's rapidness in deploying it. Mr. Chris LaRoe (Brookfield) agreed.

9. New Business

Mr. Richard Felak (Small Consumer subsector) said he was disappointed that the DPS staff postponed their presentation. Despite their cancellation, he wanted to comment on their presentation. He suggested that the study should include a sensitivity case to see how a different reliability criterion could change the optimal amount and mix of resources in a cost effective manner. He said it was a groundbreaking study to look at the new landscape with the changes of technology and regulations. He commended the DPS, NYISO and its partners for taking on this challenge, but it is noted as a goal of the study to select what mix of resources will need to be deployed by 2030 to meet public policy regulations in a cost effective manner while maintaining reliability. Mr. Felak said that cost effectiveness and reliability are inseparably intertwined! Any resource mix solution which is determined without examining how the choice of reliability criterion could affect its cost effectiveness will be significantly sub-optimal. As a result, power consumers could be saddled with unnecessary costs for a long time. The reliability criterion to be used in the base case is a 50 year old number, which is out of sync with today's new reality such as microgrids and the impacts that REV implementation will bring about. Looking out to 2030, it is probable that consumers will measure and value reliability in different ways than has been true historically. This is especially because the importance of reliability and the cost of outages have both increased significantly in 50 years. It would be prudent and instructive to include a sensitivity case that looks at how a different reliability criterion could change the optimal amount and mix of resources in a cost effective manner. Mr. Felak said he realized that the DPS and other participants may have a full plate with the current study scope; however this additional case could be run after the other sensitivity cases or even a separate activity later on. He thanked the DPS for considering his suggestion in the spirit of striving to minimize the cost of power to all end use consumers while maintaining an acceptable level of reliability.

Ms. Altobell suggested participants can submit comments and questions in writing to the NYISO and the NYISO could circulate them to the DPS. She did have two questions of her own:

- 1. She said the study is to determine what resources would exist in a cost effective manner in the case of modeling REV, but asked how the cost of DERs will be modeled in the analysis? To the extent that the DPS and its partners are comparing the different cases, she assumed they are not dispatching DERs behind the meter, so how do they account the costs of REV when they are figuring out the most cost effectiveness of the cases?
- 2. To the extent that we have large scale generation that we depend upon for voltage support and transmission security operating reserves, how are these services being accounted for or reflected in these studies? To the extent we have renewable and DERs, the resources that provide those services may change; how will they be reflected in the studies?

Mr. Bolbrock requested that when the presentation is made that there be a definition of "cost effective" and what are the metrics to be used in evaluating that term. Will one of the metrics be cost impacts on the consumer? What level of granularity will the policies be at and what regulations will there be? Is there going to be a comparison of business as usual? Also, Mr. Bolbrock said he would like for DPS to share and explain their rationale for sensitivity 3 (reduction or no dual fuel generation)? What does the outcome suggest?

Mr. Younger asked that the NYISO report back to the MC when the DPS presentation would be scheduled at a NYISO stakeholder meeting in 2016.

Mr. Fromer said he had a fundamental question for the NYISO as opposed to the DPS. He felt that the presentation came across as a bold attempt to re-engage in the concept of Integrated Resource Planning (IRP) and a top-down approach of what they expect to happen. He asked for confirmation from the NYISO that we still have a market-based system of sending price signals to incent what to build, when to build, and where to build. It was frightening to him that New York was sending signals that we are moving away from a market-based approach. Mr. Jones said the NYISO was committed to a markets-based approach. We are evaluating going forward where some of those influences may impact our markets. Mr. Rana Mukerji (NYISO) added that the NYISO provides scenarios that inform the market in a transparent manner. Mr. Bolbrock shared Mr. Fromer's concern and said the NYISO could do an IRP study which would serve as a benchmark to get an idea how close the market is doing an ideal action. It's not clear if that's the purpose of the effort. He would support it if that was the purpose of the study.

Mr. Jones announced that the PSC unanimously approved the public policy need for AC transmission and the process will move over to the NYISO and that the NYISO process will begin very soon.

Mr. Barlette reported that the NYISO conference center was in the process of being upgraded and the Krey Blvd road has been paved.

The MC adjourned at 12:00 p.m. The next MC is scheduled for January 27, 2016.