

**Final Minutes**  
**New York State Reliability Council**  
**Installed Capacity Subcommittee**  
**Meeting #180 – February 3, 2016**  
**NYISO Corporate Center, Rensselaer NY**

**Attendees**

**Present    Phone**

**Members / Alternates:**

Rich Wright (CHG&E) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dmitriy Kiselev (Con Edison) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Howard Kosel (Con Edison) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sanderson Chery (Con Edison) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Khatune Zannat (PSEG LI) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mariann Wilczek(PSEG LI), <b>ICS Vice Chair/Secretary</b> .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Syed Ahmed (National Grid) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bart Franey (National Grid) .....	<input type="checkbox"/>	<input type="checkbox"/>
Richard Brophy (NYSEG-RGE) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
John Tigue (NYSEG-RGE) .....	<input type="checkbox"/>	<input type="checkbox"/>
Bob Boyle (NYPA), <b>ICS Chair</b> .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tim Lundin (NYPA) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mark Younger (Hudson Energy Economics, LLC – Wholesale Sellers) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mark Cordeiro (PLM, Inc – Municipals & Electric Coops) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mike Mager (Couch White – Large Consumers) .....	<input type="checkbox"/>	<input type="checkbox"/>

**Advisers/Non-member Participants:**

Al Adamson (Consultant) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
John Adams (Consultant) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Erin Hogan (UIU) .....	<input type="checkbox"/>	<input type="checkbox"/>
Kelvin Chu (GE) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Mark Walling (GE) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wes Hall (GE) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ricardo Galarza (PSM Consulting) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liam Baker (US PowerGen) .....	<input type="checkbox"/>	<input type="checkbox"/>
Scott Leuthauser (HQUS) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kelli Joseph (NRG) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
James Scheiderich (ECS).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Chris LaRoe (Brookfield Renewables) .....	<input type="checkbox"/>	<input type="checkbox"/>
Greg Drake (NYISO).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Frank Ciani (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dana Walters (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Josh Boles (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Steve Lemme (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kai Jiang (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bill Lamanna (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Carl Patka (NYISO).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Brian Hodgdon (NYISO).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vijay Ganugula (NYISO).....	<input type="checkbox"/>	<input type="checkbox"/>
Alan Ackerman (CES).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Norman Mah (Con Edison Solutions).....	<input type="checkbox"/>	<input type="checkbox"/>
Matt Cinadr (E-Cubed) .....	<input type="checkbox"/>	<input type="checkbox"/>

**1. Review of Action Items List**

**1.1. General Electric Presentation –EPA Clean Power Plan**

General Electric provided a presentation (action item 173-1) on the impacts of EPA Clean Power Plan on reliability modeling and potential changes to the MARS model. Wes Hall provided a brief overview of the Clean Power Plan(CPP) rule and Mark Walling provided consideration of features that could be built into the MARS model to capture future environmental regulations. The Clean Power Plan takes effect in 2022. Mr. Hall noted that there are two areas where there are impacts on reliability modeling as a result of the Clean Power Plan. The first is increased renewables. He noted that the NY State Energy Plan also calls for an increased reliance on renewables. The second area will be the energy limitations on thermal units. Alan Adamson asked if these regulations are in place even if there is a Loss of Load probability.

Mr. Hall noted that the final CPP has a reliability safety valve but that would be applied more operationally than in a planning arena.

Mr. Walling spoke on concepts to capture resource limitation in MARS. He discussed a new concept of “limiting groups” that will allow groups within multiple areas to be grouped together and activated as part of an EOP. GE noted the concepts were at a very high level and were looking for comments if there were features that people may want to capture so it can be built into the logic early while still in the whiteboard stage. GE will be bringing these ideas to the MARS user group meetings. Mr. Adamson noted the practical implications of this program and the ability to identify the environmental impacts to the IRM in the future by performing what if studies. Mr. Walling indicated that GE hopes to have something available well before the CPP implementation period to use, adding they hope to have beta testing at this time next year.

## **1.2. Standing Agenda Items**

### **1.2.1.1. MOU Status**

Mr. Walters reported that the interest level by all the regions is not consistent and the discussions are currently at a stalemate. Mr. Ahmed noted there is an existing a five-party agreement. Mr. Walters noted that there aren’t any signatories that can be found. Chair Boyle noted that the question on MOUs was identified by Mr. Younger and has been on the Action Item list for over two years and this issue has planning implications and there has been no progress on it. He noted this will remain a standing agenda item for monthly updates.

### **1.2.1.2. LCR Task Force**

Mr. Walters noted that after comments received from the consultant’s presentation to the market participants, they are continuing to work on concepts that may work. He indicated that they are hoping to have some conclusions by June. Chair Boyle asked for Mr. DeSocio to provide a status update to the ICS in March or April.

## **1.3. Action Item List**

### **1.3.1.1. Action Item 161-5**

Mr. Drake noted that Action item 161-5 is low on the priority order list. The concern is that as time passes, the older loads may not have the characteristics of load shapes that are more recent. He noted

we need to look at this issue and see if there should be a cut-off date. Chair Boyle noted this was agenda item 5.4 and would be discussed later.

**1.3.1.2. Action Item 170-9**

Chair Boyle noted that he spoke with Mr. Adams on Action Item 170-9(study guide document) and Mr. Adams indicated it is about 40% complete. Mr. Boyle noted that there is a greater need for Mr. Adams to assist with the white papers and research and recommended that Mr. Adams work on it sparingly as time permits. The date was changed to 2016 for scheduled completion.

**1.3.1.3. Action Item 173-9**

Action Item 173-1 was completed by the GE presentation today and removed from the list.

**1.3.1.4. Action Item 179-2**

Mr. Walters presented a slide of draft planning assumptions by outage states for Action Item 179 -2. He reviewed a new category of ICAP Ineligible Force Outage(IIFO) unit. Mr. Walters noted there are already qualifiers defined in Policy 5, Appendix C. New language would need to be added to incorporate the IIFO units. Chair Boyle noted that a reliability study is not performed for these units and it would violate Policy 5 with respect to removal. Mr. Walters agreed that is one of the issues that would need to be addressed in Appendix C. It would need to follow a different process and more language may need to be added to make the intent to return clearer. The NYISO will be drafting some language for revisions to Appendix C and bring back to the group for consideration.

**2. 2017 IRM Study Schedule and Process Milestones – for ICS Approval**

Chair Boyle noted that the NYSRC EC wants the white papers to be completed by June 1<sup>st</sup> as well as a decision on what assumptions will be used in the model. He led a discussion on the timing of items in relation to the white paper scopes. Among the items discussed were the determination of emergency assistance, external control area modeling, PJM LOLE value, topology review date and special sensitivity timing. Further detailed discussion took place later in the meeting on these items.

Mr. Adamson raised a concern that the ICS is reviewing and approving the topology at the same meeting. He noted in the past it would take more than one meeting to accept it. After discussion, Chair Boyle agreed to revise the May ICS milestone to read “NYISO completes preparation of transmission topology and brings to TPAS and ICS for review”. This will allow for a longer review period prior to the June 1<sup>st</sup> ICS meeting.

The approval was delayed until after the modeling discussion in the event other changes to the schedule were made.

### **3. Scopes of Potential Modeling Analyses for 2017 IRM Study – ICS Comments**

#### **3.1. Outside World Model**

Mr. Adams noted that when Policy 5 was updated last year, the term outside world was eliminated as it was not a defined term and it was replaced with External Control Area which is consistent with Policy 5.

Three proposals were received and reviewed. One from Chair Boyle, a second from Mr. Younger and the third was from Messrs. Adamson and Adams. (See posted meeting material for the actual proposals).

##### **3.1.1. Emergency Assistance**

The discussion centered on determining the amount of emergency assistance that should be modeled in the 2017 IRM Study. One option – the one presently modeled in MARS – is to take all that is available, which brings the IRM to a minimum level. Three other proposed options were presented in papers submitted to ICS by Mr. Boyle, Mr. Younger, and Messrs. Adamson and Adams discussed below:

Chair Boyle discussed his outside world proposal which starts with the as found system in New York and included breaking all ties with the outside world and then modeling external contracts. He proposed to accept back the amount of emergency assistance up to the amount that operations is comfortable with.

Another proposal came from Mr. Younger. Ms. Joseph discussed Mr. Younger's proposed study in his absence. He noted it was an unrealistic assumption that available generation in excess of what the external control areas might need to meet its own peak has been started and is up and running and has been committed in anticipation of being needed in the NYCA. Ms. Joseph continued that Mr. Younger has suggested that the NYISO should look at historical data to see if those assumptions are valid. One suggestion is to look at some of the past peak days and see how much actual emergency supplies were available from these external areas at the control areas individually and as a whole. We should see whether they actually did have capacity committed and available past their minimum requirements. We should also look at NYISO past commitments on peak days to determine the likelihood that NYISO did not commit all their units on a peak day and if the ones not committed could be started quickly or if they have longer start up times. In his proposal, Mr. Younger also requested that GE be available at a future meeting to talk about options in the model for limiting emergency assistance.

Mr. Adamson noted he and Mr. Adams also had a similar suggestion to Mr. Younger's on page 3 of their paper. Mr. Adamson read the section. "ICS should determine from NYISO staff analysis whether actual NYISO Inter-Area operating conditions and limitations could constrain outside world area emergency transfers to NYCA as calculated by MARS. If it is found that such constraints do exist, reflect in MARS model as required. The need for this review was suggested by NYISO staff during presentation of the 2016 IRM Study".

Chair Boyle agreed that a study needs to be done by operations on the acceptable amount of emergency assistance we can rely on during peak events and this would be the number one priority for the External Control Area white paper. Chair Boyle asked that operations provide a scope for the white paper at the next meeting. Mr. Adamson expressed concerns about introducing a new concept for this year's IRM. Chair Boyle noted that this may not be done this year as it would be too significant of a change to Policy 5 and would require a sensitivity case.

### **3.1.2. Other Comments on 2017 IRM Study**

Messrs. Adamson and Adams provided 2017 IRM Study comments. Mr. Adams discussed what the proposed scope for the white paper for the External Control Area model should contain. He noted that items that should be addressed are the assessment of the PJM multi-bubble model to replace the 4-bubble model used in the 2016 IRM and review of the PJM LOLE of 0.14 used in 2016. Chair Boyle assigned Messrs. Adamson and Adams to review the PJM LOLE of 0.14. Mr. Adams noted other items that should be reviewed for an understanding for their impact. Among these are: PJM renewable generation additions which are modeled as perfect capacity and significant changes in year-to-year reserve margins and LOLEs for some of the External Control areas. Mr. Adamson noted that Mayer Sasson (Con Ed EC member) raised the idea of a cap on the reliance of external control areas in terms of a maximum % IRM reduction and he would like ICS to consider the possibility of having a cap. Mr. Adamson spoke noted the development of an updated PJM-SENY topology, including Northern NJ upgrades and the Phase II Staten Island unbottling project and the status of the wheel contract with Con Edison(may be eliminated) should be part of the topology for the 2017 IRM Study.

### **3.2. Multiple Year Wind Shape**

Chair Boyle noted that there was a beta version from GE that could not be tested last year. The NYISO will need to test it, compile the results and provide a write-up about the testing including how the model performed, what was tested, and what were the results were. Mr. Drake noted that there are four years of data starting with 2012. There is simulated data for some prior years. The concern is that

the simulated data is different than the actual plants that have been built so the recommendation is to not include them. Mr. Adams thought there may be data for 2011 from a DOE wind study used at the NYISO. Mr. Drake will look into that.

### **3.3. SCR Modeling**

Mr. Ganugula will provide his assumptions at the March ICS meeting.

### **3.4. Load Shape Selection Process**

NYISO will provide their analysis at the May ICS meeting.

### **3.5. Forward capacity Modeling – Special Task Force**

Chair Boyle noted that will this will not be completed this year.

## **4. Policy 5 Changes - ICS Comments**

### **4.1. Special Sensitivity Cases**

Mr. Adamson discussed concerns with the last IRM study and the special sensitivity case that was identified. He and Mr. Adams are proposing to allow the ICS to recommend converting a special sensitivity case, if appropriate, to a base case assumption in advance of finalizing the study by replacing the base case IRM that was earlier approved at the November ICS/EC meeting with the special sensitivity case IRM. He expressed concerns over the length of time to revise the report last year following the December EC meeting and the resultant delayed filing to FERC. There was a discussion on the timing and steps involved. Mr. Walters raised concerns over hardwiring dates into the schedule and would like to retain flexibility as the type of change and amount of analysis is unknown. After considerable discussion, Chair Boyle noted revisions will be made to the schedule to reflect this possibility while allowing the NYISO time to perform the analysis. The EC may direct the ICS to do a special sensitivity at the November 10<sup>th</sup> EC meeting. The NYISO will perform the work necessary for a Tan 45 analysis and will deliver the results on November 21<sup>st</sup>. The ICS will meet on November 22<sup>nd</sup> to determine if this special sensitivity should become a new base case. If it does become a new base case Mr. Adamson and Mr. Adams will revise the draft report accordingly, and the ICS will review and approve it at the November 28<sup>th</sup> meeting. The EC will receive the final version of the report for their December 2<sup>nd</sup> meeting. Mr. Brophy asked if there was a way to generalize it for other years. Chair Boyle indicated Mr. Adamson and he will revise Policy 5 with and circulate for a future ICS meeting.

### **4.2. Retirements**

Chair Boyle noted this was discussed previously.

#### **5. Initial 2017 IRM Study Assumptions Matrix – very brief high level overview**

Mr. Drake shared an initial draft of the matrix with updates for the 2017-2018 IRM. A few items were noted and discussed. This included an assumption that the new MARS version will be approved. The production version was received and the NYISO will be doing final testing. Mr. Drake noted that the modeling is not specific to wind. It can be used for any hourly intermittent unit so the NYISO will be using it for solar as well. They plan to do the same testing for solar as they do for wind.

Chair Boyle asked if Mr. Boles would provide a one page write-up for the FCM Sales. He noted that the ICS needs to understand what that number is and how he determines that number.

Chair Boyle asked about the modeling issues with the Con Edison wheel. There was no emergency assistance over that tie since it was limited to 1000 MW due to the contract. Mr. Drake noted that the decision for Con Edison to renew the contract will be made in April. Chair Boyle asked if it was possible to have the topology done for both with and without the wheel and have Mr. Lamanna come to the March ICS to speak to the ability to have it ready for the May timeframe. Ms. Joseph asked about the status of the Staten Island unbottling project. Chair Boyle asked Con Edison (Mr. Kosel and Mr. Kiselev) to report on the status of it at the March ICS meeting. Chair Boyle noted the matrix will be reviewed again at the March meeting.

#### **6. 2017 IRM Study Schedule**

Chair Boyle turned the discussion back to the schedule. He reviewed the priorities to determine the date white papers would be completed. Mr. Drake expressed concerns over responding without knowing the exact scope. Mr. Walters clarified that the external control area model has multiple pieces. The first piece of the scope is to deal with the PJM modeling in aggregate, a second piece of that is the LOLE modeling which was assigned to Messrs. Adamson and Adams and the third piece is the emergency assistance discussion from operations. He further noted that the emergency assistance options would consider Chair Boyle's concept and Mr. Younger's concept. Mr. Walters noted that it is premature to pursue any one of those before looking at those in aggregate and reviewing the pros and cons of any particular methodology. Mr. Walters noted that in the 2016 IRM report, the NYISO did agree to some language in a footnote that would be meeting with PJM and trying to review and improve the model so



that is what we will still do but how resolved that will be is hard to tell. Chair Boyle indicated he would write this down to be met by June 1<sup>st</sup>. Mr. Adamson noted the LOLE study would be ready for May. Chair Boyle assigned the emergency assistance to be available by May. The SCR model will have a scope in March and done in April. Mr. Walters noted that the load shape selection process is considered to be a low priority and will not be done until after June. Chair Boyle once again discussed the special sensitivity and date for a Policy 5 change. Mr. Adamson noted there will be several pieces to Policy 5 changes and all needed to be done by June where the EC normally approves them at the latest by July. Mr. Drake indicated that the multiple year wind shape model is testing and reporting and could be done by April meeting. Chair Boyle noted that the external control area model items need to be done for June 1<sup>st</sup> with the sooner it is done the better.

## **7. Additional Agenda Items**

None were noted.

*Secretary: Mariann Wilczek (PSEG LI)*

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Upcoming meetings:

Meeting 181, Wednesday, March 2<sup>nd</sup> at NYISO Corporate Center

Meeting 182, Tuesday, March 29<sup>th</sup> at NYISO Corporate Center

Meeting 183, Wednesday, May 4<sup>th</sup> at NYISO Corporate Center

Meeting 184, Wednesday, June 1<sup>st</sup> at NYISO Corporate Center

Meeting 185, Wednesday, June 29<sup>th</sup> at NYISO Corporate Center

Meeting 186, Wednesday, August 3<sup>rd</sup> at NYISO Corporate Center

Meeting 187, Tuesday, August 30<sup>th</sup> at NYISO Corporate Center

Meeting 188, Wednesday, October 5<sup>th</sup> at NYISO Corporate Center

Meeting 189, Wednesday, November 2<sup>nd</sup> at NYISO Corporate Center

Meeting 190, Monday, November 28<sup>th</sup> at NYISO Corporate Center