

# NYSRC Installed Capacity Subcommittee

Meeting #140

October 3rd, 2012

9:30 a.m. – 3:00 p.m.

Meeting Minutes

## Attendees

	Present	Tel
Members / Alternates:		
Mr. Curt Dahl (LIPA) .....	<input type="checkbox"/>	<input type="checkbox"/>
Ms. Polina Adelson (LIPA) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Yuri Fishman (LIPA) .....	<input type="checkbox"/>	<input type="checkbox"/>
Ms. Kathune Zannat (LIPA) .....	<input type="checkbox"/>	<input type="checkbox"/>
Ms. Erin Plasse (CHG&E) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Rich Wright (CHG&E) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Luting Pan (Con Edison) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Gregory Chu (Con Edison), <b>Secretary</b> .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Syed Ahmed (National Grid) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Bart Franey (National Grid) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mrs. Patricia Caletka (NYSEG-RGE) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Edward Gilroy (NYSEG-RGE) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. John Tigue (NYSEG-RGE) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Robert Boyle (NYPA), <b>Chairman</b> .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Andrea Fossa (NYPA) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Bradley Kranz (NRG Energy, Inc.) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Chris LaRoe (IPPNY) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Mark Younger (Slater Consulting - Generation Owners) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Mark Cordeiro (Municipal Power Agency) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Michael Mager (Couch White, LLP), <b>EC Chairman</b> .....	<input type="checkbox"/>	<input type="checkbox"/>
Advisers/Non-member Participants:		
Mr. John Adams (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Peter Carney (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>

Mr. Frank Ciani (NYISO).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Dave Lawrence (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Greg Drake (NYISO).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Bill Lamanna (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mrs. Kathy Whitaker (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Ms. Mariann Wilczek (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Ms. Erin Hogan (NYSERDA) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Ed Schrom (NYPSC) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Al Adamson (Consultant).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Frank Vitale (Consultant) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Arthur Maniaci (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Scott Leuthauser (Consultant for H.Q. Services) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Henry Chao (NYISO).....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Howard Tarler (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Wes Yeomans (NYISO).....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Paul Gioia (NYSRC) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Dana Walters (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ms. Donna Pratt (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. David Allen (NYISO).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Mark Walling (GE) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Gary Jordan (GE) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Glenn Haake (Haake Energy Consulting LLC).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Guests Present:

Mr. Charlie Shafer (AES) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Dean Ellis (Dynergy).....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Jim D'andrea (Transcanada) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Alan Ackerman (Customized Energy Solutions).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dr. Roy Shanker .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Phil Fedora (NPCC).....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Arvind Jaggi (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Frank Francis (Brookfield).....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Tom Patrit (EPS) .....	<input type="checkbox"/>	<input type="checkbox"/>

Mr. Ruben Brown (The E Cubed Co.) .....	<input type="checkbox"/>	.....	<input checked="" type="checkbox"/>
Mr. John Dalwin.....	<input type="checkbox"/>	.....	<input type="checkbox"/>
Mr. Richard Quimby.....	<input type="checkbox"/>	.....	<input checked="" type="checkbox"/>
Mr. Randy Wyett (NYISO).....	<input type="checkbox"/>	.....	<input type="checkbox"/>
Mr. John Dowling (Luthin Associates) .....	<input type="checkbox"/>	.....	<input type="checkbox"/>
Mr. Nicholas Occhionero (NYPSC) .....	<input type="checkbox"/>	.....	<input type="checkbox"/>
Mr. Timothy G. Lundin (Customized Energy Solutions).....	<input type="checkbox"/>	.....	<input type="checkbox"/>
Mr. Norman Mah (Con Edison) .....	<input type="checkbox"/>	.....	<input type="checkbox"/>
Mr. Matt Renninger (Energy Curtailment Specialist) .....	<input type="checkbox"/>	.....	<input checked="" type="checkbox"/>
Ms. Kathy Slusher (SUNY) .....	<input type="checkbox"/>	.....	<input type="checkbox"/>
Mr. Rick Roby (Dynergy).....	<input type="checkbox"/>	.....	<input checked="" type="checkbox"/>

## 1. Assumption Matrix

Gregory Drake (NYISO) will circulate version 5.3 of the assumption matrix with redlines to the members after the meeting. Version 5.3 will contain redlines that highlight the changes and updates from the approved version of the matrix.

## 2. Sensitivity Study Results

Mr. Drake reviewed the sensitivity results on a case by case basis at the meeting.

Mr. Drake mentioned that the NYCA isolated case caused the IRM to increase by 7.7%. This is expected because NYCA needed assistance from external pools. The delta on the increase was slightly larger this year than last year's results. Al Adamson (NYSRC – Consultant) said that it is fairly close.

The lack of internal constraints lowered the IRM to 15.3 from 17.2% in the base case. This delta was also similar to last year's results.

If the case did not include load forecast uncertainty, the IRM can decrease to 7.9%. The delta was higher in this year's study because LFU is wider this year.

The lack of wind capacity only affected upstate regions. Therefore, the locational capacity percentages were locked in. The lost capacities were returned to upstate regions only. The IRM dropped to 12.8%. The delta was more last year because there was more wind capacity assumed in the base case. Syed Ahmed (National Grid) asked if the footnote about replacing wind capacity only from A-I and not A-K was done in the same way last year. Mr. Drake said it was. Mr. Ahmed recommended a sentence that states this is the same methodology as last year in the footnote.

Excluding EDRP didn't affect the IRM significantly due to the small amount of MWs in the program. The exclusion of SCR, which had worse performance than the average outage rate of the fleet, decreased the IRM to 16.7%

The NYISO decreased/increased the outside world loads by 10% to perform case 6 and 7 studies. Mr. Drake believed that the results looked reasonable, even though the delta was larger than last year.

The units EFORds were increased/decreased by 1% for case 8 and 9. For case 9, which required a decrease in EFORd, the units with less than 1% EFORd to begin with did not receive any adjustments. The results looked reasonable. Mr. Adamson asked that in the final version of table 2, EFORd effect due to the new method be separated from this particular case study.

Mr. Drake said that 2007 load shape case has been completed but the tangent 45 results were not yet available for release pending internal review. Chairman Bob Boyle (NYPA) recommended that the NYISO includes the final load forecast for both 2002 and 2007 load shape case. Chairman Boyle also asked if the tangent 45 results will be available by the next Executive Committee meeting (10/12). Mr. Drake said no. Chairman Boyle then asked if the case was performed like a regular sensitivity without tangent 45, will the results be ready for the EC meeting. Mr. Drake said yes. When ask about providing a rough estimate of the result, Mr. Drake said that the run finished last night and the results has not been reviewed.

Retirement of Indian Point 2 and 3 yielded similar results to last year's study.

Glenn Haake (Haake Energy Consulting) asked about the details of the 300 MW wheel study case. Mr. Drake stated that this case affected the tie lines into and out of New York. He further stated that this year we need more assistance from Quebec.

Mr. Drake said that Curt Dahl (LIPA) previously questioned about the magnitude of the IRM change when SCR calls were limited to 5 calls per month per zone. The key here is that MARS just pick the first 5 SCR calls, not necessarily the 5 highest load days. Polina Adelson (LIPA) asked about the limit on the base case, which Mr. Drake replied there was no limit on calls in the base case. He said the base case simulated about 19 or 20 calls on average. Scott Leuthauser (HQUS) asked about number of calls from the sensitivity case. Mr. Drake said he will check. **(AI 140-1)**

Frank Vitale (NYSRC – Consultant) asked about the amount of coal units retiring in this sensitivity case, Mr. Drake said all 12 coal units were retired in the base case. Mr. Adamson asked the NYISO to name the environmental regulation that this study was based on. Mr. Drake mentioned that this was a RNA scenario and it was not due to a single regulation, but rather a combination of various factors.

Mr. Dahl also had a question about the effects of converting HTP to all emergency assistance and its effect on an IRM increase. Mr. Drake responded that since the contract that is modeled as capacity in zone J was removed, and the capacity was redistributed to upstate, the IRM increased because upstate capacity is not as effective as down state capacity. Mark Younger (Hudson Energy Economics) suggested that the NYISO can try to add back the capacity only in zone J to avoid this effect on the IRM. Chairman Boyle asked the NYISO to check and see if they can perform this, without violating any confidentiality agreement. **(AI 140-2)** Mr. Adamson would like to see more description about the sensitivity case.

Frank Ciani (NYISO) stated that the units to be retired for sensitivity study case 16 were Cayuga and Dunkirk units that didn't make the cut-off deadline for base

case inclusion with their retirement/mothball announcements. Mr. Adamson would like to see more explanation of the case. Mr. Younger wanted specific unit current status to be spelled out for this sensitivity case.

Mr. Ciani said that HQ and PJM will have updates from NPCC summer assessment model. The updated model will be a new sensitivity case #17.

Mr. Adamson mentioned that there should be more footnotes to explain several of the sensitivity cases like case #11, #15, etc.

Mr. Adamson asked if the coal retirement scenario will have an effect by 2013. Mr. Younger said yes. Mr. Adamson then mentioned that the footnote should provide more detail information. Mr. Drake mentioned that in Appendix B of the report, the sensitivity cases are typically described in detail. Chairman Boyle and the other ICS members still agreed that footnotes are needed, at least for the EC meeting. Dana Walters (NYISO) mentioned that the footnote should not include comments that are only probable and not actual.

### **3. Quality Assurance Reviews**

Kathune Zannat (LIPA) stated that due to the lack of resources, LIPA only performed a cursory review of the database and mentioned the interface inconsistency to the NYISO previously.

Gregory Chu (Con Edison) stated that Con Edison completed their review of the database and forwarded the findings to the NYISO. He also mentioned that some of the interface transfer outputs were not visible, and the NYISO has agreed to unmask these non-confidential outputs so Con Edison can review and identify inconsistencies if any. **(AI 140-3)**

Ms. Zannat asked if the transition rates for the interfaces can be unmasked. Mr. Ciani said he will check to see if the model allows these specific transition rates can be unmasked on their own. **(AI 140-4)**

#### **4. APA/EFORd Model Analysis**

Mr. Drake stated that the NYISO had funds available and has contracted Dr. Chanagh Singh from Associated Power Analysts, Inc. (APA) to help identify the EFORd deviations found in the unit comparison charts presented by the NYISO previously.

Mr. Adamson asked if the ICS approved the methodology to be used in the final base case. Chairman Boyle said that the ICS is comfortable with the methodology and this additional analysis is just to ensure the software is working properly.

Mr. Drake asked about the priority of this particular task. Chairman Boyle said that the EC will need to know before they vote for the final IRM at the end of the year. He does not want the NYISO to push this task off to next year. Mr. Adamson said that the EC needs to have no doubt in the APA method in the model for them to determine the final IRM. Mr. Chu reinforced that the priority of this task should be high, since the deviation may be due to a software programming issue that has not been identified, but would end up affecting the IRM results. Mr. Drake replied that if Con Edison thinks the problem is significant, the NYISO/APA should look at more than just the top 10 deviations. Mr. Chu stated that 10 were suggested by the NYISO and it was a compromise to expedite the task. Con Edison would be extremely happy if all the deviations are identified.

#### **5. Fall Load Forecast**

Arthur Maniaci (NYISO) presented the 2013 peak load forecast for the final base case model. He mentioned that he obtained 2012 actual MW for each of the TOs, including adjustments from SCR and EDRP, apply load growth factors, and arrived at the new 2013 load forecast.

Mr. Haake asked how the NYISO arrived at the 380 MW listed under SCR/EDRP, since the amount of SCR registered in zone J was greater than 380 MW. Mr. Maniaci mentioned that performance factor was applied. He cautioned that this is just an estimate, and the NYISO will have a more accurate assessment in November and in January.

Mr. Younger mentioned that July UCAP level said 384.4 MW. He said that this number is just an ICAP/UCAP translation, which Mr. Maniaci agreed.

Mr. Adamson asked about SCR/EDRP estimates do not match up between the top table (which only showed RG&E with 79 MW) and the bottom table (zone J with 380 and zone K with 85 MW). Mr. Maniaci said that on the day of NYCA coincident peak, no calls were made on 7/17/2013 other than RG&E. The bottom table showed the SCR values on 7/18 for zone J and 6/21.

Mr. Maniaci said 33,295 MW was the previous forecast; the updated 2013 forecast with weather adjustment is 33,118 MW. The final 2013 IRM forecast that included the growth factors is 33,278 MW.

Mr. Adamson asked about LIPA's negative load growth. Mr. Maniaci said that wind and photovoltaic reduced the load.

## **6. Proposed Methodology for Assigning Load Shapes to Load Uncertainty Bins.**

John Adams (NYISO) presented the multiple year load shape methodology at the meeting. The methodology took the top 30 peak load days from the past 13 available years, divided the peak by normalized peak load for each of the years to develop the per unit measurement for each of the years. The 30 per unit values were then averaged in their respective year, and the 13 averaged per unit values by year were ranked in the order of lowest to the highest. According to the results presented, the highest average P.U. year was 2006 and the lowest was 2004. The NYISO is proposing to use 2004 for bins 1 and 2, 2008 for bin 3, 2007 for bin 4, 2002 for bin 5, and 2006 for bins 6 and 7.



Mr. Younger asked if statistics on LOLE based on specific bins are available. The NYISO will check with GE for that. **(AI 140-5)**

Mr. Younger asked about the probabilistic wind shape. The NYISO has reviewed the 2 years of wind and there was no clear correlation.

Mr. Adams mentioned the complication of the external area loads and the possibility of external control areas coming in at lower LOLE than 0.1 that Policy 5 asked to be held for these areas when different load shapes were entered in the model. A possible way to correct this is to set up external areas to the base case middle bin shape.

The NYISO will send out the presentation and will provide a white paper for the methodology. **(AI 140-6)**

## **7. Final Base Case Preparation**

Mr. Drake said that the load forecast will be updated for the final base case. He also mentioned that most of the changes identified in the QA findings will probably not change the IRM significantly.

Mr. Adamson said that the final base case must be available by 10/19 since a week is needed to put together the tables for the report.

## **8. IRM Report**

Mr. Adamson and Mr. Vitale are currently working to put together the report. They are still waiting for some of the write-ups on various sections like environmental and transmission. **(AI 136-5, 139-9)**

Mr. Adamson said that the APA/EFORd write-up will be created from the EC summary about the white paper.

Mr. Vitale asked if NYSEG will continue to provide Appendix C: ICAP to UCAP Translations since Steve Jeremko (NYSEG) is no longer a part of the subcommittee. **(AI 140-7)**

## **9. PPR-109 SCR Data Reporting**

Mr. Adamson stated that RCMS at their next meeting will determine if the NYISO implementation plan, which includes the submitted procedures, will fulfill the requirement of the rule.

## **10. Tangent 45 Methodology**

Mr. Chu requested that the tangent 45 curve points be sent to Con Edison in the future as well so Con Edison can be another set of eyes to assist in the tangent 45 calculation, which the NYISO agreed.

Mr. Chu stated that he attempted to perform tangent 45 analysis this year and obtained different results than the values determined by Yuri Fishman (LIPA). Mr. Chu contacted Mr. Fishman to learn and understand the methodology since the results didn't seem to match. Mr. Fishman indicated that there was an exclusion rule that has been in use for many years, but was not documented in the methodology in Policy 5.

The exclusion rule disqualifies the tangent 45 point from a curve if the tangent 45 point is too close to the end points of the curve.

Mr. Younger asked if this adequately answered the difference between the NYISO's result and LIPA's result previously identified. Mr. Ciani said yes because the exclusion threw out a set of curve and the end results between the NYISO and LIPA would agree if the exclusion rule is applied. Mr. Chu said Con Edison achieved the same identical results with both NYISO and LIPA when the exclusion rule is applied.

Chairman Boyle said that this clarification will be incorporated into the document along with all the additional modifications to Policy 5 next spring.

**ICS members agreed with the wording and the clarification is adopted.**

## **11. New Capacity Zone**

Chairman Boyle mentioned that a new capacity zone may be introduced in the near future. There are many unknowns that need to be addressed, such as the zones to be included in the new capacity zone, or if the zone is even needed. He stated that the ICS would assist the NYISO in the determination of the tangent 45 methodology that would include the new capacity zone. He asked about the difficulties of modifying the methodology from the NYISO. **(AI 139-11)**

He also asked for a small group to meet and discuss the new methodology. The volunteers currently comprised of the NYISO, LIPA, NYPA, Con Edison, HQUS, and Wholesale Sellers. Mr. Younger will be the head of this new subcommittee.

Henry Chao (NYISO) recommended that this sub group should remember the purpose of the tangent 45 methodology and ensure the consistency of the methodology and its impact on the capacity requirements.

Secretary: Gregory Chu

*(Con Edison)*

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Next meetings:

Meeting 141, Tuesday, October 30<sup>th</sup> at NYISO HQ  
Meeting 142, Tuesday, November 27<sup>th</sup> at NYISO HQ

Meeting 143, Wednesday, January 2<sup>nd</sup> Conference Call  
Meeting 144, Tuesday, January 29<sup>th</sup> at NYISO HQ  
Meeting 145, Tuesday, February 26<sup>th</sup> at NYISO HQ  
Meeting 146, Wednesday, April 3<sup>rd</sup> at NYISO HQ  
Meeting 147, Wednesday, May 1<sup>st</sup> at NYISO HQ  
Meeting 148, Wednesday, June 5<sup>th</sup> at NYISO HQ

Meeting 149, Wednesday, June 26<sup>th</sup> at NYISO HQ  
Meeting 150, Tuesday, July 30<sup>th</sup> at NYISO HQ  
Meeting 151, Wednesday, September 4<sup>th</sup> at NYISO HQ  
Meeting 152, Wednesday, October 2<sup>nd</sup> at NYISO HQ  
Meeting 153, Tuesday, October 29<sup>th</sup> at NYISO HQ  
Meeting 154, Monday, December 2<sup>nd</sup> at NYISO HQ

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