

# NYSRC Installed Capacity Subcommittee

Meeting #123

May 4<sup>th</sup>, 2011

9:30 a.m. – 2:00 p.m.

Meeting Minutes

## Attendees

	Present	Tel
Members / Alternates:		
Mr. Curt Dahl (LIPA), Chairman .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Carlos Villalba (Con Edison), Secretary .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Kelvin Chu (Con Edison) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Gregory Chu (Con Edison) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Madison Milhous (National Grid).....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Syed Ahmed – (National Grid) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Steve Jeremko (NYSEG-RGE) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mrs. Patricia Caletka (NYSEG-RGE) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Edward Gilroy (NYSEG-RGE) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Rajee Mustafa (NYPA) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Han Huang (NYPA) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Glenn Haake (Dynegy, Inc. - Generation Owners) .....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Harry Joscher (PSEG Power, LLC).....	<input type="checkbox"/>	<input type="checkbox"/>
Mr. Chris Wentlent (AES-NY).....	<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. Robert Boyle (NYPA).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Rich Wright (CHG&E).....	<input type="checkbox"/>	<input type="checkbox"/>
Ms. Erin Plasse – filling in for Rich Wright (CHG&E).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Bart Franey (National Grid).....	<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).....  .....
- Mr. Dave Lawrence (NYISO) .....  .....
- Mr. Greg Drake (NYISO).....  .....
- Mr. Bill Lamanna (NYISO) .....  .....
- Mrs. Kathy Whitaker (NYISO) .....  .....
- Ms. Mariann Wilczek (NYISO) .....  .....
- Ms. Erin Hogan (NYSERDA) .....  .....
- Mr. Ed Schrom (NYPSC) .....  .....
- Mr. Glenn Haringa (GE Energy).....  .....
- Mr. Gary Jordan (GE Energy) .....  .....
- Mr. Al Adamson (Consultant).....  .....
- Mr. Frank Vitale (Consultant) .....  .....
- Mr. Arthur Maniacchi (NYISO) .....  .....
- Mr. Yannick Vennes (HQ).....  .....
- Mr. Scott Leuthauser (Consultant for H.Q. Services) .....  .....
- Mr. Henry Chao (NYISO).....  .....
- Mr. Howard Tarler (NYISO) .....  .....

Guests Present:

- Mr. Jim D'andrea (Transcanada) .....  .....
- Mr. Bradley Kranz (NRG Energy, Inc.).....  .....
- Mr. Alan Ackerman (Customized Energy Solutions).....  .....
- Mr. Paul Gioia (NYSRC) .....  .....
- Mr. Chris De Graffenried (Con Edison) .....  .....
- Dr. Roy Shanker .....  .....
- Mr. Phil Phedora (NPCC) .....  .....
- Mr. Wes Yeomans (NYISO).....  .....
- Ms. Kathune Zannat (LIPA) .....  .....
- Mr. Arvind Jaggi (NYISO) .....  .....
- Mr. Frank Francis (Brookfield).....  .....
- Mr. Yuri Fishman (LIPA) .....  .....
- Mr. Mayer Sasson (ConEd) .....  .....
- Mr. Tom Patrit (EPS) .....  .....
- Mrs. Pamela Quinlan (Con Edison) .....  .....

## 1. SCR Study Scope

Mr. Wes Yeomans discussed the NYISO proposed scope of work to study SCRs' impact on reliability as a part of the current resources. Mr. Syed Ahmed wondered if the SCR study results will be a part of the base case. It will not, but may be a part of the sensitivity study instead.

The NYISO is currently looking hard at SCR data from last summer for behaviors that relate to performance and persistence of individual SCRs. The current concern is that the current IRM study process assumes SCRs acting as unlimited response time, while in reality SCRs can only be relied upon for 4 consecutive hours per call. The study will consider a 4-hour response first, but will also consider 6-hour and 8-hour scenarios. The scenarios will be determined using study results from the 2010 summer's SCR data. NYISO will take the existing MARS base case and run it in the hourly mode. To study ELCC, the proposed method is to add incremental blocks of SCR (i.e. 100MW, starting at 2200MW) to improve the LOLE, then add additional loads to bring LOLE back to 0.1 day/year. A curve will be generated for each of the scenarios using a ratio of SCR and added load versus SCR blocks.

Mr. Ahmed was concerned about the implication of modeling SCRs with 4-hour response, while they may in fact respond for more hours. He was also wondering if there's a penalty for less than 4 hour response. The penalty is reflected in their EFORd. If they notified NYISO ahead of time about their inability to comply with 4 hours, they will be considered with reduced capacity but may still retain 100% performance for those limited hours of response.

Mr. Robert Boyle commented that NYISO should examine different dispatch options for SCRs to smooth out uneven reduction of hourly peaks during longer SCR calls due to varying window of 4-hour SCR response. The dispatch analysis may also be utilized for the implementation of SCR blocks in the ELCC study.

ICS will work collaboratively with the NYISO on a mutually accepted scope. ICS will provide written comments on the presented scope and provide them back to the NYISO. (AI 123-1).

Mr. Mark Younger commented that there are 2 different types of persistence. One type, which can be seen by studying SCR data, relates to “bounce back” behaviors after 4 hour. The second type is after numerous calls, will the SCR no longer respond at the same level as before? Perhaps there is information in the literature or data at other ISOs available to help us understand this type of persistence.

Chairman Curt Dahl also commented that SCR response may be limited by environmental regulations, if called on a more frequent (even daily) basis.

ICS members agreed it would be useful if NYISO staff report Interim/preliminary results while the study is underway.

The number of iterations needed for the hourly model has yet to be determined due to the large file size and lengthy computation time required.

## **2. Limited Response Resources Presentation**

Mr. Mark Younger presented a modified version of the LRR presentation given previously at the ICAP meeting.

The key concern stated in the presentation is that since SCRs can only be relied on for 4 hours of response, the 5<sup>th</sup> hour becomes the new peak. MARS does not take that into consideration, according to Mr. Younger, and assigns the FULL amount of reduction for the day, while in reality the peak load reduction is a fraction of that. In short, MARS would have overstated the load reducing effect of the SCR and understated the need for other resources to maintain reliability.

Mr. Younger suggests that either the response time should be expanded and other changes need to be implemented to target response more accurately, or keep the same 4 hour response requirement but IRM study needs to account for the limited availability of these resources. However, Mr. Younger also

demonstrated that by expanding the length of an SCR call to 6 hours, MARS' overstatement of SCR may still exist, albeit with a smaller overstatement since the response time may end up occurring at different time periods within the 6 hour window.

Mr. Kelvin Chu mentioned that MARS may or may not work as mentioned before. MARS may calculate DLOLE by stepping through the EOP steps (each margin state), and recalculate using the new load profile, then MARS will NOT have overstated the SCR reduction. This needs to be confirmed by GE.

Also, Mr. Chu cautioned that if MARS hourly model is used, 0.1 day/year LOLE is not the same as 2.4 hr/year HLOLE.

ICS will review and comment on NYISO's SCR study scope (AI 123-1) and comment on Mark Younger's study within the next week. Mr. Younger will then summarize the comments and responses received in writing in 2 weeks. (AI 123-2)

### **3. NYISO Energy and Environmental Planning**

Mr. Pete Carney presented on the environmental regulations that may affect the IRM study. Indian Point retirement will impact reliability. IP license renewal is being heard and the hearing is expected to be as long as 1-2 years before a final decision is made by the state.

Generation efficiency has been improving while emissions have been gradually reducing over the years.

Due to the new upcoming regulations, about 50% of the generators will be forced to invest in environmental control projects or retire.

Four major regulations were focused on. They are NOx RACT, BART, MACT, and BTA (Clean Water Act). The impacts for each of the regulations (by superzones, in MWs) are listed in table format within the presentation. The impacts are categorized, where category 2 means that the generators will have to spend millions and category 3 means that generators will spend hundreds of

\$/KW of capacity. In summary, there's a possibility that retirements may occur that are currently not reflected in our base case.

Post- RNA development includes CATR in 2012 that would require 16% NOx reduction and 3 rules are proposed (interstate, intrastate, and no trading). MACT will come into effect in 2015 and both coal and oil plants will need to monitor and reduce hazardous pollutants. NYS BTA is more stringent than EPA.

By the end of June, NYISO staff will provide modeling recommendations for the base case, based on the best available information on the impacts of environmental regulations. (AI 123-3)

#### **4. EFORd/Transition Rate Methods**

Mr. John Adams, who headed the working group meeting that took place on 4/15/2011, summarized the discussion of the meeting. Dr. Chanan Singh from APA recommended two alternative methods (approaches #1 and #2) since MARS currently does not take reserve shutdown states into consideration. The consensus from the working group is to continue with the current EFOR method for the 2012 IRM base case; implement neither the NYISO true-up nor Con Ed transition rate methods; and the NYISO staff develop APA's approach #2 method, and implement as a sensitivity study for this year's IRM study (to be included in the assumption matrix). Further, ICS agreed that the APA approach to be used for the 2013 IRM base case.

The 4 action items from the working group meeting have been completed with the following results:

The test set of data for one unit was developed by NYISO and is currently available. The software to implement the APA method will take about 2 months to develop. Existing data can only support APA approach #2. True-up method does indeed change LOLE, albeit slightly.

Mr. Gregory Drake presented the study for the comparison between EFOR and EFORd during the meeting. GTs have a larger spread of EFOR vs EFORd, while larger, baseload units have comparable EFOR vs EFORd values.

Mr. Syed Ahmed was interested in investigating further the true-up method effect on LOLE, but other ICS members disagreed because of the lack of mathematic justification.

#### **5. NERC Mandatory GADS Data Reporting**

NERC was soliciting comments about changing the voluntary GADS data reporting to mandatory. Approximately 50% of the GADS voluntary data (design data) would be mandatory. Small generators are pushing back on this change. They are concerned with the need to create and submit 2 different sets of data, one set to ISO-RTO, the other to NERC. NYISO recommends generators to submit their data in the NERC format and NYISO will extract the necessary data for the market.

#### **6. Masked/Encrypted Input Data for TOs for QA review**

The encrypted data set has been received and tested with the same LOLE result. The data will now be inspected to ensure that the data has been successfully and permanently masked. NYISO is expected to provide the masked data set to the members of ICS and GE by the end of July. (AI 123-4)

#### **7. ICS Meeting Locations**

ICS has agreed upon meeting at NYISO locations for all future dates. Mr. Greg Drake will confirm room availability. (AI123-5)

#### **8. 2012 IRM Study Process Milestones**

ICS is on target with the milestones up to May.

#### **9. Composite Wind Shapes**

Mr. Younger commented that since composite wind shape averages the capacity factor using multiple years, the shape may miss highly unlikely events that may result with a lower capacity factor that may affect LOLE. He further commented that perhaps a random distribution of the wind should be implemented. Mr. Ahmed mentioned that we should be consistent with the RNA method

assumption. ICS members are asked to provide comments on the composite wind shapes in a week. (AI 123-6)

Chairman Dahl mentioned that PSC is requesting a sensitivity study of modeling wind as UCAP instead of ICAP. Due to some concerns brought into light by ICS members about mixing UCAP with ICAP and the intended goal of this sensitivity study, Mr. Ed Schrom will reach out to the PSC for clarification. (AI 123-7)

## **10. Transmission Topology Status**

Mr. Bill Lamanna is getting feedback from TPAS for any changes in the topology. ICS is requesting Mr. Lamanna to attend the May 31<sup>st</sup> ICS meeting to discuss the transmission topology model to be used for the 2012 base case. (AI 123-8).

## **11. Assumption Matrix Review**

Con Ed and LIPA will prepare the Load Forecast Uncertainty model for the 2012 IRM Study. Mr. Arthur Maniaci will be present at the next ICS meeting for LFU update. (AI 123-9)

Mr. Steve Jeremko and Mr. Syed Ahmed will check for any upcoming wind resources in their respective territories/organizations. (AI 123-10)

## **12. Action Items**

### **Closed**

120-3: NYISO to provide a presentation on composite shape methodology for wind resources

120-4: Syed Ahmed to report on the completion time for the Nine Mile upgrade project

122-2: Mr. Adams to set up a technical working group for EFORD true-up/ Transition Rate methodology on 4/15/2011

122-3: NYISO with a draft scope for the SCR study (5/4/2011)

122-4: NYISO and Con Edison to discuss and report back on a mutually agreed Shifting methodology. (5/4/2011)

122-5: Peter Carney to attend (or to provide a memo) at the next ICS meeting to discuss environmental regulation impacts (including NAAQS) for the 2012 IRM Study. (5/4/2011)

**Revised**

122-1: Mr. Steve Jeremko to provide Parametric Analysis Report (After 5/4/2011 ICS meeting)

**New**

123-1: ICS members to provide comments on SCR Study Scope by NYISO (5/13/2011)

123-2: ICS members to provide comments on Mr. Mark Younger's LRR presentation, finalized in two weeks (5/20/2011)

123-3: NYISO to provide recommendation based on the best available information on the environmental regulation impacts (6/29/2011)

123-4: NYISO is expected to provide the encrypted data set to the ICS members and GE (7/31/2011)

123-5: Mr. Gregory Drake to confirm NYISO room availability for future ICS meetings (5/31/2011)

123-6: ICS members to provide comments on NYISO's composite wind shape presentation (5/13/2011)

123-7: Mr. Al Adamson to reach out to PSC for clarification of wind unit derate (using UCAP instead of ICAP) sensitivity study (5/31/2011)

123-8: Mr. Bill Lamanna to attend the next ICS meeting on transmission topology status (5/31/2011)

123-9: Mr. Arthur Maniaci to attend the next ICS meeting to update load shape model and load forecast uncertainty (5/31/2011)

123-10: Mr. Steve Jeremko and Mr. Syed Ahmed to check on upcoming wind resources (5/31/2011)

Secretary: Gregory Chu

*(Con Edison)*

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Next meetings:

Meeting 124, Tuesday, May 31<sup>st</sup> at NYISO HQ

Meeting 125, Wednesday, June 29<sup>th</sup> at NYISO HQ

Meeting 126, Wednesday, Aug 3<sup>rd</sup> at NYISO HQ

Meeting 127, Tuesday, August 30<sup>th</sup> at NYISO HQ

Meeting 128, Wednesday, October 5<sup>th</sup> at NYISO HQ

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Meeting Minutes for ICS meeting #123- 20110504 Draft

Meeting 129, Wednesday, November 2<sup>nd</sup> at NYISO HQ  
Meeting 130, Monday, November 28<sup>th</sup> at NYISO HQ

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