

NYSRC Installed Capacity Subcommittee

Meeting #65

June 7, 2006

9:00 a.m. – 12:30 p.m.

NYSERDA: 17 Columbia Circle Board Room

Meeting Minutes

Attendees

Members/Alternates Present:

Mr. Curt Dahl (LIPA), Chairman
Mr. Bart Franey (National Grid)
Mr. Steve Whalen (NYSEG-RGE)
Mr. King Look (Con Edison)
Mr. Madison Millhous (KeySpan Ravenswood)
Mr. Mark Younger (Slater Consulting)
Mr. Steve Jeremko (NYSEG-RGE)
Mr. Carlos Villalba (Con Edison), Secretary – telephone, limited participation

Advisers / Non-Voting Participants Present:

Mr. Al Adamson (Consultant)
Mr. Greg Drake (NYISO)
Mr. Frank Vitale (Consultant)
Mr. John Pade (NYISO)
Mr. Ed Schrom (NYSDPS)
Mr. Cenk Yildirim (NYISO)
Mr. Glenn Haake (IPPNY)

Guests Present:

Mr..Paul Norris (HQ US, limited participation)
Mr. Bruce Ellsworth (Chairman of NYSRC Executive Committee)
Mr. Harry Joscher (PSEG Power LLC)
Mr. Michel Prevost (HQ US – telephone, limited participation)
Mr. Tim Bush (NRG and NYSRC Executive Committee member) – telephone

1 Review and Approval of Meeting Minutes

1.1 March 29, 2006 ICS Meeting (#63)

The group reviewed and commented on the draft meeting minutes from meeting #63. The draft was approved as final after minor comments.

1.2 May 3, 2006 ICS Meeting (#64)

Reviewed 5/3/06 meeting minutes and a revised draft incorporating the comments made will be reviewed at the next ICS meeting on July 7.

2 Review of Previous Outstanding Assignments

2.1 Closed

64-1. Provide Load forecast probability distribution updates for Areas J and K. Assigned to Curt Dahl and Carlos Villalba.

64-3. Provide Force Outage Rates or Transition Rate Tables updates for Areas J and K. Assigned to Curt Dahl and Carlos Villalba.

2.2 New

65-1. Assess the impact of the HQ proposal on raising the NYCA import limit of 2755 MW limit and the transfer limits on the external ICAP purchases from individual control areas. Assigned to Bill Lamanna.

65-2. Investigate the market rules applicable to the HQ wheel proposal. Assigned to all members.

65-3. Using MARS, examine the effects of increasing external ICAP purchases from Ontario by 500 MW. Assigned to Greg Drake.

65-4. Re-evaluate transfer limits with Ontario. Assigned to Bill Lamanna.

65-5. Verify concept for performing LOLE sensitivity analysis by using a Δ LOLE vs. Δ IRM curve to quantify the IRM impact of sensitivity cases using last year's IRM study. Assigned to GE.

65-6. Recalculate the 2006 IRM vs. LCR curve using the latest MARS version. Assigned to Greg Drake.

65-6. Recalculate the 2006 IRM vs. LCR curve using the latest distributed MARS version (2.78) and perform the SCRs sensitivity. Assigned to Greg Drake.

65-7. Write position papers on the anchoring methodology. Assigned to all members.

65-8. Finalize the TAN 45 math paper. Consensus on how to anchor at Tan 45. Assigned to Mr. Franey and Mr. Look.

65-9. Segregate how many Distributed Generation participating in the market are registered as SCRs and EDRPs. Assigned to Mr. Warren and GE.

65-10. Model UDRs with a direct contract from the dummy area to Area K.. Assigned to GE.

65-11. Provide a schedule for the update of GE-MARS interfaces transfer limits. Assigned to Bill Lamanna.

65-12. Update Policy 5. Assigned to all members.

65-13. Compare 2002 and 2005 Load Profiles and give a recommendation. Assigned to Mr. Pade and Mr. Yildirim.

65-14. DMNC de-rating update. Assigned to Mr. Pade.

65-15. Update 2007 unit planned outages and minimum summer planned outages. Assigned to Frank Vitale.

65-16. Investigate the EOPs steps beside SCRs and EDRPs. Assigned to John Adams.

2.3 Update of Previous Assignments

See 2.1 for previous assignments that were completed and closed out.

3 HQ US Presentation – by Mr. Paul Norris.

In summary: HQ US is planning to wheel 600 to 800 MW through Ontario to NY, but apparently 300 to 400 MW is all that is possible. Before approving any sort this plan, the NYISO and the NYCA stakeholders would like to have some type of documentation that shows the firm commitment of IESO to provide the wheel without any type of curtailment.

Based on the current unified methodology, increasing the external ICAP may result in a higher IRM which would offset the benefit of HQ US proposal. The NYISO would need to assess the maximum import capability of the proposed wheel and the potential increase of the external ICAP. Mark Younger proposed to model the wheel as a contract from HQ to NYCA through Ontario instead of only increasing the external ICAP from Ontario.

4 2006-2007 IRM Lessons Learned

4.1 Lesson 1 - Schedule:

Curt Dahl indicated that he and Carlos reviewed the NYSRC policy and the NYISO capacity market due dates and concluded that they should not recommend the ICS change the IRM report due date from December 15th to January 15th. This recommendation was based on two factors: One factor is that if the calculated IRM is different than 18%, then a FERC filing is required by the NYISO to implement the change. According to Paul Gioia, a FERC filing including a review and comment period would take at least 60 days. If the report due date is changed to January 15th, that would leave only 30 days for the challenge period prior to the March 30th 6-month summer capacity strip auction. In addition, a January 15th IRM report would require the availability of all ICS members during the holidays to provide feedback and analyze the report's results.

King Look indicated that he will speak with Lynn Urbano to confirm whether or not Con Edison will be able to provide the updated load forecast by October 1st.

Glenn Haake offered to implement at the ICAP WG, Steve Jeremko's recommendation to inform the NYISO market participants the IRM Study Report schedule once finalized.

John Pade indicated that the parametric IRM impact comparison analysis can be done off the Gold Book forecast, i.e., this analysis doesn't have to wait for the updated load forecast.

4.2 Lesson 2 - Sensitivity cases –

Bart Franey summarized the discussions he and Mr. Look had with Glenn Haringa and Gary Jordan by conference call with GE on May 11th. Mr. Franey noted that GE made the following suggestions to speed up modeling:

- Consolidate the EOPs (for those which have no limits on the number of times they can be called upon) as a single step.
- Modeling 2 peak months instead of all 12 months.
- GE suggested to start with the IRM base case at the 0.1 LOLE and from this point develop a Δ LOLE vs. Δ IRM curve, so only a single LOLE run would be required to quantify the IRM change (or impact) from the base case for each sensitivity case.

Bart suggested to limit the sensitivity cases to only those which would raise the IRM, to which suggestion Al Adamson disagreed.

Steve Jeremko said that the IRM Study Report should always include a detail explanation of all the sensitivities results. Mr. Jeremko will add some language to the Lesson Learned #2 in regards to this issue.

4.3 Lesson 3 - Defining Tan 45 Anchor Point –

Curt Dahl indicated that there are two documents related to this issue: the first one is a policy paper which Al Adamson will go through at the RAITF meeting and the second a math paper, which Mr. Dahl will be discussing. Mr. Dahl indicated that the latest draft of the Tan 45 math paper includes a NYCA MW vs. Locational MW analysis. Mr. Dahl also said he believes this draws upon the previous analysis Bart had discussed at the May 3rd, 2006 ICS meeting. Mr. Dahl suggested that ICS should have a conference call to further discuss the Tan 45 math paper (the conference call was set for Tuesday, June 13th).

Subsequently, the ICS group discussed the Tan 45 Pros vs. Cons table and couldn't reach consensus among the members on how and what to present to the EC. Bruce Ellsworth suggested to the ICS to write a FFE and TAN 45 papers and submit them to the EC for discussion at July's EC meeting.

5 Upstate/Downstate study

Gary Jordan of GE reported that while performing the Upstate/Downstate study, GE realized that the NYISO used the GE-MARS program version (2.69) to calculate the results presented in the 2006-07 IRM Study, and that this version was calling the EOP steps incorrectly. The miscalculation happens because the program does not advance to all EOPs when the third EOP (EDRPs) reaches the maximum amount of times that can be called in a month. GE corrected the modeling of the EOPs, starting in version 2.72, which was released on July 26, 2005. According to Mr. Jordan, at 18% IRM, 80% NYC and 99% LI, in version 2.69 the NYCA LOLE was 0.096, whereas using the newest version the NYCA LOLE was 0.078. Mr. Jordan also indicated that if the EDRPs limits on the EOPs table were removed, both versions would give identical results.

Mr. Ellsworth indicated that this will probably be brought up at the EC, and Mr. Dahl should be prepared to bring an ICS recommendation as to what to do. One reason of not changing the IRM for this year (besides being too late) is that the already calculated IRM is more conservative than a new IRM calculated using the new version.

Mark Younger suggested that the SCR and EDRP sensitivities in the 2006-07 IRM Study should be redone using the new MARS version to verify that they are in-line with currently expected values.their previous results.

Tim Bush asked why the NYISO did not use this version when it came out in July 26, 2005. Tim suggested that the NYISO (John Pade) should have used that version. In addition, Mr. Franey asked the NYISO what version was used for the RNA. This question will be answer by the NYISO.

Carlos Villalba said that there will always be model and assumptions enhancements and that the recalculation of the IRM shouldn't be necessary. Mr. Villalba added that by the time the 2.72 version was released, the NYISO had performed weeks' worth of calculations and results comparisons. This could have been a contributing reason why changing the program version was not considered, in addition to GE not informing the NYISO at the time of the version release the potential severity that the new version may have on the IRM or LOLE.

The group will reconvene next Tuesday June 13th at 1:30 pm through a conference call to discuss remainder of agenda.

The sections below were discussed on June 13th conference call

Attendees

Members/Alternates Present:

Mr. Curt Dahl (LIPA), Chairman
Mr. Bart Franey (National Grid)
Mr. King Look (Con Edison)
Mr. Madison Milhous (KeySpan Ravenswood)
Mr. Mark Younger (Slater Consulting)
Mr. Steve Jeremko (NYSEG-RGE)
Mr. Carlos Villalba (Con Edison), Secretary

Advisers / Non-Voting Participants Present:

Mr. Al Adamson (Consultant)
Mr. Greg Drake (NYISO) – Limited Participation
Mr. Frank Vitale (Consultant)
Mr. John Pade (NYISO)
Mr. Ed Schrom (NYSDPS)
Mr. Glenn Haake (IPPNY)
Mr. Glenn Haringa (GE)
Mr. John Adams (NYISO)

Guests Present:

Mr. Brian Irrgang (KeySpan)
Mr. Harry Joscher (PSEG Power LLC)
Mr. Aydemir Nehrozoglu (Con Edison)

6 GE-MARS Executable Issue Impact

Mr. Dahl started by explaining to the group the EC recommendation reasons for recalculating the 2006-07 IRM. The recalculation not only will serve as a verification of the different program version impact, but as the starting and benchmarking point for the 2007-08 IRM calculation. John Adams said that the results may be ready in couple of weeks, since their man-power situation has improved after hiring a crew of interns. Mr. Franey asked some questions to GE to assure that the version that they will use does not contain any other fixes that may affect the true impact.

To prevent this incident from happening again the ICS members suggested to GE that in the future GE should include Curt Dahl, John Pade, and John Adams in the distribution list of new GE-MARS version releases.

7 TAN 45 Anchoring Methodology

Mr. Dahl indicated that per the EC recommendation two position papers should be written since the ICS group did not reach consensus. Mr. Dahl assigned himself as the leader of the TAN 45 anchoring methodology, and Bart Franey and Steve Jeremko the leaders of the FFE anchoring methodology. Mr. Dahl strongly suggested that the two paper positions should be ready for the next EC meeting in July.

8 Lessons Learned – Continuation

8.1 Item 4 - Intermittent Resources ,

Mark Younger indicated that because the SCRs have a small impact in the sensitivities, the results seen in the 2006-07 IRM Study sensitivities may be due to the executable version, and not to the modeling technique. Therefore we can wait on this item until the sensitivities results with the new executable are completed..

Mr. Younger explained that Distributed Generation has a 30-hour operating limit imposed by the DEC. Even though during a blackout this rule changes, it does not apply to the ICS study. Mr. Franey emphasized that these limits do not apply to all SCRs and EDRPs. The NYISO is already investigating of how many SCRs and EDRPs are affected by the 30hr operating limit.

For wind modeling, Mr. Villalba proposed to look at modeling these resources as units whose capacity is limited on a random basis for reasons other than the forced outages on the unit. Mr. Haringa explained that the wind units do not have a random behavior, but a pattern through out the day, and their output is proportionally inverse to the load, since during the hottest days wind is not present. Mr. Haringa also explained that the wind at 8 am was always different than at 3 pm. GE is still researching the difference between the hourly and daily draws.

8.2 Item 5 - UDRs modeling.

Curt Dahl started by highlighting PJM's and NE's acceptance of the modeling technique used to represent the UDRs in GE-MARS.

Mr. Franey suggested that when modeling the UDRs from PJM, the MWs claimed by the DC-line should be attached to the specific generator(s) they are coming from. The group responded that CSC was modeled by moving the capacity contracted into the dummy area created in New York for that purpose. John Adams said that LIPA has indicated the potential generators in their RFP and that the NYISO will review the list.

Mr. Villalba asked GE if when modeling UDRs with a dummy area like CSC, the reserve sharing logic distributes the dummy area's generation surplus as an emergency assistance to all areas in NYCA other than Long Island even when Long Island is deficient. Mr. Haringa suggested to test a model with a direct curtailable contract between the dummy area and Zone K..

8.3 Item 7 - Free flow Equivalent IRM

John Adams asked to maintain this Item on hold to wait for results with the new executable.

8.4 Item 8 - Transfer Limits

Bill Lamanna said that the NYISO has been working on the Central East limits, however the lack of human resources have slow down the process. Mr. Dahl stressed to Mr. Lamanna that the transfer limits were critical data items to update the GE-MARS model. Mr. Dahl asked Mr. Lamanna what could the NYSRC do to help accelerate the process. Also Mr. Franey asked Mr. Lamanna if the IRM Study could use the same limits than the RNA.

John Pade answered to Mr. Franey that this is not possible because the RNA 2007 load forecast is based on the 2004 actual summer load while the IRM load will be based on the 2005 actual summer load. Therefore, the transfer limits calculated for the RNA would not apply for the IRM. The actual difference is of about 900 MW.

John Pade will ask Mike Calamano the human resources situation to calculate the transmission limits.

Mr. Dahl indicated that the Neptune Project is already under construction and is estimated to be in service by summer 2007.

8.5 Item 9 - Data Base Accuracy

John Pade said that the NYISO will use GE's screening mechanism to flag anomalies and have ICS members looking through the data during a one day special session proposed by Al Adamson around August after the EC approves the assumptions.

Al Adamson asked the ICS members to update Policy 5 and send the revisions to him.

9 Assumptions Matrix

The group went over the assumptions matrix and made some modifications. The ICS members agreed to extend the unit de-rates to all areas in NYCA particularly to the new CC units. The group also discussed the new units and the retirements that will be modeled. Ed Schrom clarified to the ICS members the potential and conditions for the retirements dates of Russell, Poletti, and Lovett generating units. All adjustments were made directly on the Assumptions Matrix document.

Mark Younger updated the group with the new DEC regulation, in which the Distribute Generation is restricted to 30 total hours of operation affecting the SCRs and EDRPs modeling technique. The Assumptions Matrix was modified accordingly.

The ICS members preliminarily agreed with Mark Younger suggestion to perform a sensitivity on the HQ wheel in the 2007-08 IRM Study and make some decisions based on these results on May of next year.

10 Upstate/Downstate Study

Glenn Haringa indicated that by the end of next week a preliminary report stating GE's assumptions and concerns will be available to the ICS members for feedback and comments. After all comments are addressed, GE will proceed to finalize the results and the report.

11 New Units for Long Term Resource Adequacy Assessment.

King Look indicated that Con Edison is not aware of proposed generation projects in zone J that would come on-line during the time period 2007-2009.

The ICS members questioned the development of wind farms and Caithness project in zone K. Mr. Franey asked the NYISO if the assumed generation capacity for this resource adequacy study will match the RNA generation capacity. John Adams answered that it will not because for example the RNA does not take into consideration the Spagnoli project in the base case.

12 Next Meeting

July 7, 2006 Meeting # 66

Secretary: Carlos Villalba