NYSRC Installed Capacity Subcommittee

Meeting #129

November 2nd, 2011

9:30 a.m. – 3:00 p.m.

Meeting Minutes

Attendees

	Present	Tel
Members / Alternates:		
Mr. Curt Dahl (LIPA), **Chairman**	☒	☐
Mr. Yuri Fishman (LIPA)	☐	☐
Ms. Kathune Zannat (LIPA)	☐	☐
Ms. Erin Plasse (CHG&E)	☐	☐
Mr. Rich Wright (CHG&E)	☐	☐
Mr. Kelvin Chu (Con Edison)	☐	☒
Mr. Gregory Chu (Con Edison), **Secretary**	☒	☐
Mr. Syed Ahmed (National Grid)	☐	☐
Mr. Bart Franey (National Grid)	☐	☒
Mrs. Patricia Caletka (NYSEG-RGE)	☐	☐
Mr. Edward Gilroy (NYSEG-RGE)	☐	☐
Mr. Steve Jeremko (NYSEG-RGE)	☐	☒
Mr. Robert Boyle (NYPA)	☒	☐
Mr. Han Huang (NYPA)	☐	☐
Mr. Rajee Mustafa (NYPA)	☐	☐
Mr. Bradley Kranz (NRG Energy, Inc.)	☐	☐
Mr. Chris LaRoe (IPPNY)	☐	☐
Mr. Mark Younger (Slater Consulting - Generation Owners)	☒	☐
Mr. Mark Cordeiro (Municipal Power Agency)	☐	☐
Mr. Michael Mager (Couch White, LLP), **EC Chairman**	☒	☐
Advisers/Non-member Participants:		
Mr. John Adams (NYISO)	☐	☐
Mr. Peter Carney (NYISO)	☐	☐

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. Al Adamson (Consultant) ..... ☒ ..... ☐
Mr. Frank Vitale (Consultant) ..... ☒ ..... ☐
Mr. Arthur Maniaci (NYISO) ..... ☒ ..... ☐
Mr. Yannick Vennes (HQ) ..... ☐ ..... ☐
Mr. Scott Leuthauser (Consultant for H.Q. Services) ..... ☒ ..... ☐
Mr. Henry Chao (NYISO) ..... ☐ ..... ☐
Mr. Howard Tarler (NYISO) ..... ☐ ..... ☐
Mr. Wes Yeomans (NYISO) ..... ☒ ..... ☐
Mr. Paul Gioia (NYSRC) ..... ☐ ..... ☐
Mr. Dana Walters (NYISO) ..... ☒ ..... ☐
Mr. Donna Pratt (NYISO) ..... ☒ ..... ☐

Guests Present:

Mr. Charlie Shafer (AES) ..... ☐ ..... ☐
Mr. Dean Ellis (Dynegy) ..... ☐ ..... ☐
Mr. Jim D'andrea (Transcanada) ..... ☐ ..... ☐
Mr. Alan Ackerman (Customized Energy Solutions) ..... ☐ ..... ☒
Mr. Chris De Graffenried (Con Edison) ..... ☐ ..... ☐
Dr. Roy Shanker ..... ☐ ..... ☐
Mr. Phil Fedora (NPCC) ..... ☐ ..... ☐
Mr. Arvind Jaggi (NYISO) ..... ☐ ..... ☐
Mr. Frank Francis (Brookfield) ..... ☐ ..... ☐
Mr. Tom Patrit (EPS) ..... ☐ ..... ☐
Mr. Ruben Brown ..... ☐ ..... ☒
Mr. John Dalwin ..... ☐ ..... ☐

Mr. Richard Quimby.....☐ .....☐
Mr. Carlos Villalba (Con Edison).....☐ .....☐
Mr. Randy Wyett (NYISO).....☐ .....☐
Mr. David Allen (NYISO).....☐ .....☐
Mr. Kai Jiang (Con Edison).....☒ .....☐

1. Assumptions Matrix Update

Gregory Drake (NYISO) stated that version 11 of the matrix included a topology change. The change was a new dynamic transfer rating from Con Edison to LILCO and it was incorporated into the final base case.

2. Final Base Case Installed Reserve Margin (IRM)

Chairman Curt Dahl (LIPA) mentioned that the only change to the IRM/LCR curve was the editorial change from "Policy 5-4" to "Policy 5-5" on the charts. There were no additional comments on the curve or the IRM/LCR values. **ICS members approved the values for IRM/LCR as 16.1% for NYCA, 83.9% for Zone J, and 99.2% for Zone K.**

3. Sensitivity Study Results

Mr. Drake mentioned that out of the four outstanding sensitivity studies, Con Edison's 1-in-2 load forecast uncertainty (LFU) case (#17) was completed and the other three are still being performed. Mr. Drake stated that the sensitivity case raised the IRM by 1.3%. The members were perplexed with this result since intuitively, a lower load forecast should indicate less capacity needed to ensure reliability.

Mark Younger (Slater Consulting) suggested that the amount of capacity this particular study carried compared to the other case is important to the understanding of why IRM increased.

Frank Vitale (NYSRC) stated that the change in Zone J's load relative to the rest of the state is also important to understand the results.

Mr. Drake responded that the IRM is a relative measure. Even though the peak decreased, the LFU went up. The risk therefore has increased.

Chairman Dahl agreed with Mr. Younger that the distribution of the LFU should not have changed at all. Mr. Younger further requested the NYISO circulate a document stating the difference in peak load in the effected zones for the 1-in-3 and 1-in-2 cases, and the probability of each bin from the LFU distribution. (AI 129-1)

Al Adamson (NYSRC) asked if this sensitivity is strictly academic, Gregory Chu (Con Edison) replied that the results of this sensitivity may be used by both the Public Service Commission and Con Edison to determine if 1-in-2 load forecast methodology would be more appropriate and thus may to lead to an actual change in methodology moving forward.

ICS members discussed if the results should be included in the report, since the values will be reviewed by the Executive Committee and will require a thorough explanation that the ICS does not have at the moment.

Arthur Maniaci (NYISO) explained that a reduction in the peak load should result in a lower IRM. The LFU profile itself did not change. The per-unit load values may have changed, but the lower peak load kept the actual MW values the same for the bins. However, there is now more of a chance to exceed the peak load value (50% versus 33%), the risk is higher. The loss of load expectation (LOLE) will increase because of the increased risk.

Mr. Younger stated that it is highly troubling that by using lower forecasted peak load, we ended up with a need for more reserve margin. Mr. Younger mentioned that since the same probability was used, with the same amount of MWs per bin, the two different MARS runs should have created the same results.

In the end, the NYISO agreed to review the sensitivity model inputs with GE assistance to address these concerns. (AI 129-2)

Bart Franey (National Grid) wondered if there were two changes in the distribution curve of LFU. The first change was shifting of the peak of the curve to be aligned with the others and the second was lowering the peak. Mr. Maniaci mentioned that both were done.

Mr. Adamson asked for the difference in peak load from 1-in-3 to 1-in-2. Mr. Drake replied that the load decreased by 185 MW.

Mr. Drake mentioned that the NYISO may consider running the curve to verify the result of this study.

ICS members agreed that at this point the results of 1-in-2 study should not be presented at the next Executive Committee (EC) meeting until the model is verified.

Mr. Drake stated that the results of the alternate wind shape sensitivity case (#12) will be ready in a few days. The SCR model case (#14) is being worked on. Mr. Younger wondered if load carrying capability study was ever presented to the ICS and requested that the results should be provided to the members in a written documentation. (AI 129-3)

Mr. Younger stressed that the impacts of Indian Point retirement (#15) should be mentioned in the report.

Executive Committee Chairman Michael Mager mentioned that the sensitivity case results will be considered by the EC for the determination of the final IRM/LCR values. Therefore, the sensitivity case studies should add to the knowledge of the EC in the IRM determination. The ICS should agree on the study method (particularly on the SCR study) to ensure the results can provide useful information to the EC.

Mr. Drake stated that Ron Fluegy is currently working out the bugs in his program for the GADS data extraction (related to case #13). This will not be available for this year's IRM study. Mr. Adamson mentioned that the ICS has not vetted the Associated Power Analysts (APA) methodology and the Fluegy code. A white paper would be necessary and the vetting process will be undertaken for next year's study.

4. GE/TO NYISO Model Quality Assurance

Chairman Dahl mentioned that the 2 QA changes were verified by the NYISO to have no impact on the IRM. All QA findings will be documented in the final report.

5. IRM Study Report

Mr. Adamson mentioned that the transmission section still needs a write-up from the NYISO. (AI 128-7)

Mr. Adamson said the following were included in the report:

- Added environmental discussion in the executive summary section
- APA method is included in the body
- Added a section for the quality assurance review
- The reasons on Table 1 changes from last year's study were added

Mr. Vitale pointed out that on third paragraph on page 22 should mention "see appendix C for historic ICAP-UCAP values."

Steve Jeremko (NYSEG-RGE) added some editorial changes. Mr. Adamson has concerns for the definition of EFOR and may need the members' approval.

Chairman Dahl mentioned the statement "Reduced availability of NYPA (typo, should be NYCA) unit" should be quantified if possible.

Bob Boyle (NYPA) asked if the glossary will be added to the report. Mr. Adamson said it will be added in the final version.

Chairman Dahl pointed out that the IRM decrease due to SCR not because of the performance but due to a change to the ACL method. (Page 19)

Mr. Adamson mentioned on page 17 he still needs a discussion from outside world transmission from the NYISO.

Mr. Vitale stated that he has updated the appendix values and graphs.

Any additional comments for the report should be submitted by COB Friday. The appendix would be incorporated and finalized by next Thursday. (AI 129-4)

Mr. Drake mentioned that the NYISO is formulating a template for the report and will circulate it to the group for comments. (AI 129-5)

6. SCR Performance Data Collection Rule

Mr. Adamson suggested that in the write-up of the proposed rule, the data submitted should be in accordance with “Policy 5 guidelines”. The idea is that the data requirements should not be specified in the rule and need to remain as flexible as possible.

Mr. Younger is fine with this proposed wording. Mr. Boyle stated that the consensus from the previous meeting is that the rule should not specify the methodology of data collection. Policy 5 should include more detail about the collection methodology instead.

7. NYISO Analysis of Demand Response Performance Data for SCR Resources Receiving Energy Payments

Donna Pratt of the NYISO presented actual data from a DR event and highlighted the difference between using Average Peak Monthly Demand (APMD), Average Coincident Load (ACL), and Customer Baseline (CBL) for performance calculation. For 2011, the data (from automatic import process) during the event was submitted but several weeks are needed to review the data with the aggregators for validation. This verification process will be completed by year end for the FERC report. She mentioned the request was to compare both APMD (used last year) and ACL (Implemented this year) against CBL method.

In July 6th data, average CBL is 690MW, 83% of APMD MWs. The maximum CBL was 716 MW, 86% of APMD, and minimum CBL was 614 MW, 74% of APMD.

Mr. Younger asked if maximum is of aggregates or individuals. Ms. Pratt responded that it is the maximum of aggregates. Mr. Younger would rather see what was the rating during the peak hour. The concept is that if the call was made and 15th hour became the peak since 16th hour had some response, the important metric would be the post call 15th hour load and pre call 16th hour load values. The NYISO mentioned that not 100% of the CBL data was available to reconstruct the load before and after the call.

The SCR's ACL/CBL comparison was performed on July 22nd since 10 of the 11 zones were called on that day. ACL of 1079 MW, average CBL of 1006 MW was computed for that day. On a total basis, average CBL is 93% of ACL. Zonal basis were also presented.

Mr. Younger stated that it isn't the CBL value that matters, but amount of load reduction is more important.

Ms. Pratt stated that part of the finding included that 5% translation factor assumed in the assumption matrix is in fact consistent with the data submitted. Mr. Younger believed that the 5% was misinterpreted since it is not about the

difference between of ACL and CBL. But rather, it is about additional reduction in the expected performance of the SCRs. Mr. Younger stated in an extreme example: say ACL is showing 1080 MW and CBL is 1006.5 MW in a 1000MW event. From the ACL perspective 80MW was reduced, but only 6.5 MW was reduced in the CBL calculation. We are more interested if 5% reduction adequately captured the difference between 80 and 6.5, which it does not. Ms. Pratt mentioned that this comparison is not yet available due to data verification process mentioned before. Mr. Younger cautioned that 5% implemented in the model has not been verified with this study.

Ms. Pratt stated that SCR are split up in 2 groups; one that reported CBL data versus those who did not. The calculation of using CBL substituting APMD involved replacing APMD values with hourly CBL values. The original method was going to be APMD minus the hourly metered load, but instead it is now hourly CBL minus hourly metered load.

Mr. Younger had some questions about the 133.05 MW shown on slide 10, which is CBL as APMD: hourly CBL performance best 4-hours. Ms. Pratt mentioned that 133.05 MW was from the best 4 hour and thus the difference between CBL and APMD is not from 808.2-690.22 MW (690 MW is the total average, not 4 hrs.) One caveat for data presented for July 6th and 7th is that CBL calculated was not from the SAME 4 hours for both days.

EDRP performance improved from 2010 events to 2011 events: 19.7% to 23.5%. The base case is using a 64% performance for EDRP. Mr. Younger suggested that this discovery should be included in the IRM report.

Finally, Mr. Younger asked what percent of the SCR is still being reviewed, as he hoped to use what is already available for analysis. Ms. Pratt responded that until the data complete the verification process, analysis cannot be done. She mentioned that Mr. Maniaci will be presenting an alternative methodology to quantify SCR performance without all data being available later on in the meeting.

Mr. Boyle asked about the amount of SCRs “sold”, not “registered”. The NYISO reported that 1406 MW were sold during that month. That’s the amount of MW expected to be reduced.

Mr. Younger in closing remarks mentioned that the concern that remains is that a study of 2011 SCR performance still has not been completed and without the study, the ICS may be overestimating the amount of SCR in the current model.

8. Top-Down Estimation of Demand Response Impacts- A Zonal Baseline Approach

Mr. Maniaci presented a new methodology to gauge the demand response results without having the actual data available when they are needed for studies.

Mr. Younger commented that unlike the other study presented by Ms. Pratt, Mr. Maniaci presented a study on the NYCA/Zonal scale instead of on each SCR resource, directly attributing any load reduction benefit to the demand response only. Mr. Younger pointed out that some utilities implement demand pricing that may help reduce the peak load and that is not SCR, but instead it is a part of the load forecast already. Mr. Maniaci acknowledged that there may be other factors in play, but these other factors are not significant. Mr. Maniaci also agreed with the comment that when the 2011 data becomes available next year, this methodology can be revisited to ensure its accuracy.

An adjustment (multiplicative/additive factor) is made to loads from similar days to make the load values (and resulting shape) comparable to the test day. The backcast and DR model did not have any multiplicative and/or additive factor adjustments.

Mr. Maniaci also stressed that the Top-Down Estimation methodology that used similar day approach may not be accurate for extreme weather days due to load saturation, pre-cooling behavior, etc. The focus of model in extreme weather

days is to replicate the typical pattern of hourly loads. NYCA, Zone J, and Zone K were all modeled and results of the estimated amount of demand response simulated were presented. The study showed that the current SCR value assumed in the base case is reasonable.

Mr. Maniaci promised to provide a written document describing the model and methodology in detail. (AI 129-6)

Secretary: Gregory Chu

(Con Edison)

Next meetings:
Meeting 129, Wednesday, November 2nd at NYISO HQ
Meeting 130, Monday, November 28th at NYISO HQ

Meeting 131, Wednesday, January 4th, 2012 at NYISO HQ
Meeting 132, Wednesday, February 1st at NYISO HQ
Meeting 133, Tuesday, February 28th at NYISO HQ
Meeting 134, Wednesday, April 4th at NYISO HQ
Meeting 135, Wednesday, May 2nd at NYISO HQ
Meeting 136, Tuesday, May 29th at NYISO HQ
Meeting 137, Wednesday, June 27th at NYISO HQ
Meeting 138, Wednesday, August 1st at NYISO HQ
Meeting 139, Wednesday, September 5th at NYISO HQ
Meeting 140, Wednesday, October 3rd at NYISO HQ
Meeting 141, Tuesday, October 30th at NYISO HQ
Meeting 142, Tuesday, November 27th at NYISO HQ