

NYSRC Installed Capacity Subcommittee

Meeting #125

June 29th, 2011

9:30 a.m. – 3:00 p.m.

Meeting Minutes

Attendees

| | Present | Tel |
|--|-------------------------------------|-------------------------------------|
| Members / Alternates: | | |
| Mr. Curt Dahl (LIPA), Chairman | <input checked="" type="checkbox"/> | <input 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. Kelvin Chu (Con Edison) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Mr. Gregory Chu (Con Edison), Secretary | <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 type="checkbox"/> |
| Mr. Steve Jeremko (NYSEG-RGE) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Mr. Robert Boyle (NYPA)..... | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Mr. Han Huang (NYPA) | <input type="checkbox"/> | <input type="checkbox"/> |
| Mr. Rajee Mustafa (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) | <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"/> |

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|---|-------------------------------------|-------------------------------------|
| 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
| Mr. Glenn Haringa (GE Energy)..... | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| Mr. Yannick Vennes (HQ)..... | <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 checked="" 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"/> |

Guests Present:

| | | |
|--|-------------------------------------|-------------------------------------|
| Mr. Charlie Shafer (AES)..... | <input type="checkbox"/> | <input type="checkbox"/> |
| Mr. Luke Tougas (Con Edison)..... | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Mr. Dean Ellis (Dynergy)..... | <input checked="" 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"/> |
| Mr. Chris De Graffenried (Con Edison) | <input type="checkbox"/> | <input type="checkbox"/> |
| Dr. Roy Shanker | <input type="checkbox"/> | <input type="checkbox"/> |
| Mr. Phil Phedora (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 | <input type="checkbox"/> | <input type="checkbox"/> |
| Mr. John Dalwin..... | <input type="checkbox"/> | <input type="checkbox"/> |

1. Assumptions Matrix – Load Forecast Uncertainty models

Arthur Maniaci (NYISO) mentioned that Load Forecast Uncertainty (LFU) models were presented to Load Forecasting Task Force group on June 17th. Mr. Maniaci stated that when compared with last year’s model, the top bin per unit value for zones H&I moved up a bit (wider distribution), while Zone J’s value decreased from last year by 0.4%.

Syed Ahmed (National Grid) asked about the methodology. Mr. Maniaci mentioned that he will send the methodology presentation to Mr. Ahmed. Curt Dahl (LIPA) suggested that Mr. Ahmed can review last year’s report for methodology.

Chairman Dahl asked why Zones A-G used last year’s LFU model for this year’s study and Mr. Maniaci mentioned that last year’s LFU model is very consistent with last year’s weather pattern.

Mr. Maniaci also pointed out that Zone K did not build a 2011 model due to the cool summer, but instead adopted the previous year’s model.

Erin Hogan (NYSERDA) inquired about the effects of warm evenings on the LFU models. Mr. Maniaci replied that evening peak hours were not exclusively modeled.

Scott Leuthauser (HQUS) inquired about saturation. Mr. Maniaci explained that at very high temperature ranges, the load wouldn’t respond to the increasing temperature the same way as it would at lower temperature. The model would overstate the expected load if saturation effects were not considered.

Al Adamson (NYSRC) asked if economic growth uncertainty was considered. Mr. Maniaci responded that weather is the larger factor on the load response uncertainty. A high load case would contain economic effects on the LFU model.

Ms. Hogan commented that economic sectors may be important to the LFU as well. Mr. Maniaci states that since the LFU models are created by regions (i.e. Zone J is mostly commercial, while H&I are mostly residential), the sector effects has been considered. Mr. Adamson recommends that the study should state that economic effects were considered and were negligible, since Policy 5 states that economic conditions are to be considered. The LFU presentation is finalized and Mr. Adamson will post the presentation on the website. (AI 125-1)

Mark Younger (Slater Consulting) was concerned that we do not have a clear relationship between economic increase versus load increase (1% GDP increase for example) that may affect the IRM. Mr. Maniaci will look into the relationship and provide a response. (AI 125-2)

2. Assumption Matrix – Load Shape Analysis

Mr. Maniaci provided an overview of the analysis of the load shape study and the conclusion of the study recommended that the 2002 load shape should be used for the 2012 IRM study since 2002 had a greater number of extreme days and hours for the NYCA, Zone J, and Zone K.

Bob Boyle (NYPA) mentioned that gas turbine performance may degrade the longer a heat wave persists. Mr. Boyle wondered if MARS model captures this effect. Gregory Drake (NYISO) suggested that heat waves from multiple years should be compared for next year's study. Mr. Younger recommended that if this relationship exists, the GT derate model should capture this effect. Later during the same meeting, Mr. Younger reported that 2 of his largest GT owners claimed that the length of the heat wave does not affect the operational behavior/performance.

Mr. Boyle also wondered if 2002 load shape is too conservative. Chairman Dahl responded that a sensitivity run will be performed on another year to ensure 2002 is the most suitable shape.

The ICS agreed to use 2002 shape and an alternate load shape (composite or something else) would be considered as a sensitivity study and noted in the assumption matrix.

3. Special Case Resources (SCR) Study

Wes Yeomans (NYISO) mentioned that the ICS comments were received and accepted. The Appendix A is the final version of the SCR study scope. Mr. Yeomans stated that according to Dave Lawrence (NYISO), the new revised baseline of SCR program will not be available until October. Also, in response to the second item in the ICS comments, Mr. Yeomans stated that the classification of resource category is not yet available, but the NYISO (Dave Lawrence) will look at ways to obtain this from existing data or incorporate into market rule changes. Mr. Yeomans needed clarification on the “optimization” of SCRs. Chairman Dahl and Mr. Younger stated that optimization should minimize the fangs effect and should apply to both operations and the study.

The ICS needed an agreement on the schedule of the study, as preliminary results for a sensitivity case was promised to the Executive Committee for this year’s study. Mr. Yeomans replied that the resources for this study will be limited due to the magnitude of the study and other tasks related to the IRM study. Mr. Adamson would like the NYISO to agree on completing the study by the first quarter of 2012. Mr. Younger would like to see some preliminary results by fall of 2011. Mr. Yeomans will come back to the ICS with an answer about the definitive expected schedule for the preliminary results of the SCR study. (AI 125-3)

John Adams (NYISO) will incorporate the ICS comments into the scope body. (AI 124-9 Revised)

4. Assumption Matrix – Solar and Wind Resources

ENXCO’s 6.5 MW of solar resources should be added to the study, along with the 32 MW BP solar resources.

Ms. Hogan mentioned that Belmont-Ellenburg wind farm, according to Rajee Mustafa (NYPA), should not be included in the study. Mr. Younger suggested that we prorate their capacity since the farm is supposed to be online by the end of the year, even though there are no sign of construction at this point in time. The ICS decided to utilize 100% of capacity of the certain projects, and 50% capacity for uncertain wind projects as the prorate method. Four certain wind projects are Prattsburg, Cody, Howard, and Belmont. The two prorated wind projects are Marble River and Stony Creek.

Wind resource availability factor is typically 11% but the value changes every year with new wind resource additions. Mr. Drake will calculate a new availability factor with the inclusion of the six wind projects above. (AI 125-4)

5. Assumption Matrix – Existing Generator Unit Capabilities, Retirements

Frank Ciani (NYISO) discussed quality assurance runs performed by NYISO. The results for 4 cases are available for review. Case 0 is a rerun of last year's case to ensure the IRM is the same. Case 1 is a model with 2012 IRM data and some minor adjustments like maintenance shifts. Case 2 uses 2011 Gold Book forecast. Case 3 has retirement units removed from the model. Mr. Adamson mentioned that both quality assurance and parametric study is being done at the same with this review. Westover and Greenwich units were retired for the runs. Mr. Leuthauser does not believe that these units should be removed since it is on long term cold standby and could return to service. Mr. Ciani states that in order for these units to return, they (NYISO) would be notified.

Mr. Younger mentioned that Project orange will also need to be retired.

6. Assumption Matrix – Proposed New Units

Mr. Drake wondered if we should include several (two or three) units that have new CRIS values in the Gold Book. Chairman Dahl agreed that they should be included for completeness.

7. Forced Outage Rates (FOR)

Mr. Drake mentioned that FOR have been modeled but the results are not yet available. The 5 year values have decreased, and thus the required reserve margin should decrease.

8. Planned Outages and Maintenances

Frank Vitale (NYSRC) reported that the summer planned outages for 2010 showed a decrease from previous years and averaged 40 MW. Mr. Vitale believed that previous assumed level of 150 MW for outages is too conservative and recommended that 50 MW may be more appropriate. The ICS agreed with the recommendation of 50 MW. Mr. Vitale is to send out a chart that supports the recommendation of 50 MW for outages and maintenances. (AI 125-5)

9. Environmental Impacts

Peter Carney (NYISO) was not available to provide an estimated effect of the National Ambient Air Quality and NOx legislature. The ICS is requesting that Mr. Carney provide some estimate of the environmental impact from the rules, including 2014-2015 environmental impacts. (AI 123-3)

10. Special Case Resources Data

Mr. Drake mentioned that the data will not be available until after the executive committee meeting. Registration, growth rate, and performance factors will be

available the week following the meeting. When the data become available, Mr. Drake will send them out to the ICS members for review. (AI 125-6)

Mr. Drake lastly summarized the discussion that included taking the July registrations, obtaining the performance factor, and formula growth rate. Since Mr. Younger mentioned that there is shift of baseline methodology, NYISO needed to reconstruct the growth rate by using two years of data prior to the change, and reforecast the third year modified to what it would have been without the baseline change.

11. External Purchases/Capacity Sales

Mr. Ciani mentioned that the external purchases will be the same as last year. Mr. Leuthauser reminded that HQ purchases of 1090 MW should be included.

Mr. Drake's response to Mr. Younger's question about NYPA hydro unit derating was that the output of the units is reduced by the same amount of sales.

New England sales will not be modeled.

12. Emergency Operating Procedures (EOP), Transmission Capability, Transmission Cable Forced Outage Rate.

Mr. Drake mentioned that Con Edison had not supplied their Load Relief numbers and transmission FOR. Gregory Chu (Con Edison) to follow up. (AI 125-7)

13. Associated Power Analysts, Inc. (APA) Methods

Mr. Drake provided an update of the development of the method. The method will be completed by September for a sensitivity analysis. He mentioned that everything is on schedule. Mr. Drake will send out information on a test unit for transition rates verification. (AI 125-8)

14. Policy 5-5

Mr. Adamson stated that the policy was reviewed and approved by the executive committee.

15. Parametric Analysis/Glossary

Steve Jeremko reported that he is working on those documents with Mr. Adamson and Mr. Ahmed's comments. (AI 124-12)

Secretary: Gregory Chu

(Con Edison)

Next meetings:

Meeting 126, Wednesday, Aug 3rd at NYISO HQ

Meeting 127, Tuesday, August 30th at NYISO HQ

Meeting 128, Wednesday, October 5th at NYISO HQ

Meeting 129, Wednesday, November 2nd at NYISO HQ

Meeting 130, Monday, November 28th at NYISO HQ
