

NYSRC Installed Capacity Subcommittee

Meeting #52

May 4, 2005

9:30 a.m. – 3:30 p.m.

NYISO: Washington Ave Ext. Conference Room WD

Meeting Minutes

Attendees

Members/Alternates Present:

Mr. Curt Dahl (KeySpan/LIPA), Chairman
Mr. Bart Franey (National Grid)
Mr. Steve Whalen (NYSEG) – Telephone
Mr. Rich Wright (Central Hudson)
Mr. King Look (Con Edison), Secretary

Advisers/Non-member Participants Present:

Mr. John Adams (NYISO)
Mr. Al Adamson (Consultant)
Mr. Greg Drake
Mr. Hebert Joseph (NYPSC)
Mr. Steve Keller (NYPSC)
Mr. Ed Schrom (NYPSC)
Mr. Frank Vitale (Consultant) – Telephone

Guests Present:

Mr. John Charlton (NYISO) – Limited Participation
Mr. Breindenbaugh (NYISO) – Limited Participation
Mr. John Buehler (NYISO) – Limited Participation
Mr. Phil Fedora (NPCC) – Telephone
Mr. Glenn Haake (IPPNY, EC Member)
Mr. Glenn Haringa (GE) – Telephone
Mr. Bill Lamanna (NYISO) – Limited Participation
Mr. Cenk Yildirim (NYISO)

1. Review and Approval of Meeting Minutes

1.1. Meeting #50 on 3/2/05

The Meeting Minutes from Meeting #50 (held on 3/2/05) were approved as final.

1.2. Meeting #51 on 4/6/05

The Meeting Minutes from Meeting #51 (held on 4/6/05) were reviewed. A motion was made and accepted to finalize these minutes with some editorial corrections.

2. Review of Previous Outstanding Assignments

Action Items List #51 was reviewed and resulted in closing out items 42-3, 50-2 and 51-8. With regard to action item 42-3, it was made redundant by 49-3 and therefore it was rolled into action item 49-3. See Action Items List for specifics.

3. Cedars White Paper – Feedback from EC

- Curt Dahl informed ICS that the EC has accepted the Cedars White Paper without motion made to approve the white paper.
- At the April 15th EC meeting, concerns were raised on the current IRM methodology:
 - National Grid and PSC Staff expressed concerns under the current IRM methodology adding capacity could increase the IRM.
 - Some EC members unhappy with the current IRM methodology wanted a new one in place for the 2006-2007 IRM Study.
- In response to concerns of some at the April 15th EC meeting, Curt Dahl indicated there may not be enough time left on the schedule to develop a new IRM methodology and use it in the IRM 2006-2007 IRM Study. However, Curt indicated that ICS would make a good faith effort to try. As a result, Curt Dahl at the May 4th ICS meeting scheduled an ICS summit meeting on May 20th to work on this issue, which is an ICS action item due to the EC by the beginning of June.

4. LCR/IRM Methodology

ICS at the May 20th summit meeting will work on the LCR/IRM study. The discussion will be kept within the ICS and EC, with assistance from GE (i.e., Glenn Haringa and possibly Gary Jordan).

4.1. LCR vs. IRM Curves Using Various Methodologies

Greg Drake presented an LCR vs. IRM curve using each of the three methodologies listed below. Greg used the 2005-2006 IRM Base Case of 17.6% as the starting point in developing these curves:

- a. Both IRM and LCRs are based on percent of elevated peak loads (“elevated load” methodology). Load is adjusted to achieve 0.1 LOLE in NYCA. This curve was initially presented at last month’s April 6th ICS meeting.
- b. Current methodology in which IRM is based on percent of elevated peak load and LCRs are based on the forecasted peak loads.
- c. Both IRM and LCRs are based on percent of forecasted peak loads and the ratio of NYC LCR to LI LCR is maintained at the current ratio of 80% over 99% (“forecasted load” methodology). Capacity is adjusted to achieve 0.1

LOLE in NYCA. This methodology failed to provide LCRs for IRMs of greater than about 19%. The curve developed using this methodology lies to the right of the existing LCR vs. IRM curve that is shown in the NYISO report, *Locational Installed Capacity Requirement Study Covering the New York Control Area For the 2005 – 2006 Capability Year*, dated 2/17/05.

Completion of these curves closes out action item #50-2.

Curt Dahl suggested that a hybrid of these methodologies could also be a possibility.

Comments and/or concerns made on each of the three methodologies (a thru c) listed above:

- a. On the “elevated load” methodology: As discussed in the Meeting Minutes of the April 6th ICS meeting, this methodology failed to provide LCRs for IRMs of less than 17.6%.
- b. On the current methodology: John Adams and Greg Drake said they do not see an inconsistency between the current IRM and LCR methodologies, but rather the IRM and LCRs are answering two different questions.
- c. On the “forecasted load” methodology: The following concerns were noted:
 - It assumes a constant relationship between NYC LCR and LI LCR at the current ratio of 80% to 99%. As an option, the NYISO may have to update the relationship between NYC LCR and LI LCR every year.
 - Perfect capacity has to be translated to real capacity, since it is perfect capacity that is being adjusted to achieve 0.1 LOLE. The translation factor used was 86.0% average availability in NYCA, which was determined by GE about four years ago and may now need updating. The 86% average availability reflects forced, partial and planned outages. Furthermore, capacity in different load zones has different average availabilities.
 - There may be anomalies unknown at the moment when removing capacity from zones J and K.

As a new action item (#52-1), Greg Drake will assess the impact of Cedars using the “elevated load” methodology in one case and using the “forecasted load” methodology in another case.

4.2. LCR vs. IRM Tradeoffs in Anchoring the LCRs

Four methods of anchoring were listed:

- a. Change of Slope: From lowest to highest IRM, the slope of the LCR vs. IRM curve changes from steepest downward (i.e., most negative slope) to

relatively flat (i.e., least negative slope). Under this method, a possible anchor may be the slope of -1 (or $-$ tangent 45°), where a change in LCR is offset equally by a change in the IRM, which also represents the midpoint between the x and y asymptotes.

- b. Fixed Percentage: Under this method, the anchor will be based on a fixed percentage IRM decrement (or LCR increment) from the “knee of the curve” defining LCR vs. IRM relationship.
- c. Fixed MW: The LCR would be defined by the LCR vs. IRM curve and locality MWs could be replaced with rest of state (ROS) MWs at appropriate equivalent amount of replacement capacity (e.g., 3 ROS MW for 1 locality MW, 4 ROS MW for 1 locality MW, etc.) up to some limit (e.g., $-$ tangent 45° , etc.). This method basically would let the market define the equivalent relationship between locality MW and ROS MW. John Adams favors this anchoring method.
- d. Largest Unit Under Consideration: Under this method, the anchor will assume the largest new unit will not be in service as scheduled. This method has a drawback in that it is only applicable if there is a new unit being installed.

Curt Dahl will prepare and circulate a framework to facilitate the discussions on the LCR/IRM methodologies and anchoring methods at the May 20th ICS summit meeting, both of which are part of an action item on the IRM Study Work Plan Matrix with a June 1st deadline to the EC.

As a new action item (#52-2), all ICS members will develop the pros and cons for the various LCR/IRM methodologies and anchoring methods, and be prepared to discuss at the May 20th ICS summit meeting.

5. Preparation for the 2006-2007 IRM Study

The 2006-2007 IRM Study Assumptions Matrix was reviewed. Highlights from the discussions on the matrix were:

5.1. 711 MW DMNC Capacity Reduction

This is action item #49-7. The current targeted completion date of this action item is May 2005. More time is required to complete this action item.

5.2. Wind Power Additions

Windmills will be modeled with 90% unavailability. It was recommended that wind be modeled as a load modifier to reflect that they typically are not on during peak hours when there is no wind.

5.3. Outside World Representation

Greg Drake reviewed with ICS the work that has been done on the outside world representation and related findings:

- Using the 2005-2006 IRM Base Case, the new PJM model lowered the NYCA IRM from 17.6% to 17.0%.
- Applying the 2006 peak load forecast to the three PJM zones modeled, the NYCA IRM dropped from 17.6% to 17.4%.
- Greg has not yet modeled PJM at 15% reserve margin requirement.
- Using the 2005-2006 IRM Base Case the new ISO-NE model increased the NYCA IRM from 17.6% to 18.1%. The 13 zones of ISO-NE were collapsed to 5 zones in the model.
- The EOPs of the other control areas need to be assessed for their potential impact on NYCA.
- Trying to reduce Ontario to a single area is proving to be more difficult than anticipated.
- Action item #49-3, which is to work with GE to update the outside world model, requires more time to complete. The current due date of this action item is May 2005.

As a new action item (# 52-3), Greg Drake will include the PJM EOPs and see it affects the NYCA IRM.

5.4. Load Shape Model

- John Pade will be at the June 1st ICS meeting to present the load shape model. Greg Drake indicated to ICS that John Pade wants to use the 2004 hourly as more typical. Curt Dahl asked Greg Drake to forward John Pade's presentation to ICS.
- LIPA has submitted the updated Long Island load uncertainty model, which completes LIPA's part of action item # 51-3. King Look indicated that Con Edison's forecasting staff is in touch with John Pade and will be submitting the updated Con Edison load uncertainty model on or before action item #51-3's June 1st targeted completion date.

5.5. New Generation

As a new action item (#52-4), all ICS members will provide Greg Drake with the new units expected to be available by summer 2006.

6. Horizon Year

A horizon year study scope needs to be developed. It was suggested that this should be tied to the NYISO Comprehensive Reliability Planning Process.

As a new action item (#52-5), Greg Drake will prepare a horizon year study scope for discussion at the June 1st ICS meeting.

7. Fuel Availability White Paper

Greg Drake indicated that when he took 3000 MW out of the system in the winter proportionately across all load zones, the LOLE started to change to indicate degradation in reliability. This closes out action item #51-8. Curt Dahl will revise the Fuel Availability White Paper to incorporate this finding and comments he had received.

8. Committee Reports

NYISO ICAP Working Group: John Charlton briefed ICS on the highlights of the 4/11/05 NYISO ICAP Working Group meeting:

- A PJM representative gave a presentation on their Reliability Pricing Model (RPM).
- There were discussions on the intermittents and GADS reporting. The NYISO still does not have the latest version of MicroGADs, which would track transmission outages and would also calculate generator EFORds.
- There were discussions on distributed generation. More and more distribution generation are being baseloaded. The first year they come in as a resource and after that they become a load modifier. Some are trying to install distributed generation on rooftops in New York City.
- FERC approved the NYISO ICAP demand curve with modifications. FERC believed that the NYISO had overestimated the net energy revenues of the proxy combustion turbine and therefore, FERC ordered the NYISO to increase the reference value of the ROS proxy combustion turbine by \$1/kW-yr and the reference values of the NYC and LI proxy combustion turbines both by \$2/kW-yr.

NYISO Comprehensive Reliability Planning Process: Bill Lamanna briefed ICS on the status of the NYISO Comprehensive Reliability Planning Process:

- The NYISO is now conducting load flow analyses to determine the interface limits for the resource adequacy study.
- The NYISO is working with PJM on splitting PJM in the model into zones. PJM targets an LOLE of 1 in 25 years for each of their zones to ensure the PJM control area would meet an LOLE of 1 in 10 years.

9. Other Business

NYISO IITF's Deliverability Study: John Buehler came in to discuss deliverability and sought to coordinate the NYISO IITF's deliverability study with ICS' IRM study. Highlights on the deliverability discussion:

- Al Adamson said that the NYSRC evaluates interzonal deliverability and the NYISO assesses intrazonal deliverability.
- Al also indicated that the last time ICS looked at bottled capacity was two years ago and did not find any. After that, ICS gave the NYISO the responsibility to identify bottled capacity to ICS. The NYISO has not informed ICS of any bottled capacity.
- IITF's deliverability work plan seeks inputs from the IRM Base Case in June this year. However, the 2006-2007 IRM Base Case will not be ready until around August, so IITF may have to use the 2005-2006 IRM Base Case.
- Curt Dahl said that the current IRM methodology allows transmission lines be binding and affect the IRM and LCRs.
- Glenn Haake said that depending on the outcome of the May 20th ICS summit meeting (which may determine which direction ICS may heading with regard to LCR/IRM methodology and anchoring method), there may or may not be a need for IITF to coordinate its deliverability study with ICS' IRM study.

10. Review Action Items

See attached action item list.

11. Next Meetings

- **May 20, 2005** **ICS Summit Meeting (special meeting to work on LCR/IRM methodology and anchoring method)**
- **June 1, 2005** **Meeting # 53**

Secretary: King Look