

NYSRC Installed Capacity Subcommittee

Meeting #160

June 4th, 2014

10:00 a.m. – 3:00 p.m.

Meeting Minutes

Attendees

	Present	Tel
Members / Alternates:		
Ms. Kathune Zannat (LIPA)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Rich Wright (CHG&E)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Gregory Chu (Con Edison), ICS Vice Chair/Secretary	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Richard Brophy (NYSEG-RGE)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Andrea Fossa (NYPA)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Bob Boyle (NYPA)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Syed Ahmed (National Grid)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Mark Younger (Hudson Energy Economics, LLC.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Advisers/Non-member Participants:		
Ms. Erin Hogan (NYSERDA), ICS Chair	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Frank Ciani (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Greg Drake (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Steve Lemme (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Nicholas Occhionero (NYPSC)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Al Adamson (Consultant)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. John Adams (Consultant)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mr. Scott Leuthauser (Consultant for H.Q. Services)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Howard Tarler (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Henry Chao (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mr. Dana Walters (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Dr. Kai Jiang (NYISO).....
 Mr. Vijaya Ganugula (NYISO)
 Mr. Carl Patka (NYISO)
 Mr. Mark Walling (GE)

Guests Present:

Mr. Jim Scheiderich (Energy Curtailment Specialist).....

1. Action Items

Greg Drake (NYISO) provided the results of the model when the external area starting LOLE was adjusted to between 0.15 and 0.1. Mr. Drake stated that by reducing about 300 MW of load from PJM East, West, and Central, PJM LOLE went from 0.188 to 0.146. The resultant NYCA LOLE went from 0.1 to 0.09. The load reduction method is the same as the sensitivity method in the IRM study. The NYCA IRM reduced from 17% to 16.5% with this change.

Former Chair Bob Boyle (NYPA) was a bit surprised about the magnitude of the change with only 300 MW change. Mr. Drake believed it is possible and reasonable. Chair Erin Hogan (NYSERDA) was wondering about the percentage of the load that was removed from PJM, compared with its total load. Dr. Kai Jiang said that it is a very small portion of the total load of PJM, which is about 150,000 MW.

Mr. Boyle suggested that external LOLE adjustment should be an entry in the future assumption matrix. Al Adamson (NYSRC – Consultant) suggested that a sensitivity case should be run with the adjustment in place for this year’s base case.

Mr. Drake said that for item 158-4, which was to provide a presentation from CP-8 about the overhead transmission outage rate, Frank Ciani (NYISO) said that he wasn’t able to track down the presentation from FERC. Vice Chair Gregory Chu (Con Edison) said that Mr. Ciani mentioned a specific person he would be

reaching out to obtain the presentation at the previous meeting, and Vice Chair Chu was wondering if that fell through. Mr. Drake will check. The due date has been postponed till 6/27/2014. Syed Ahmed (National Grid) will reach out to Phil Fedora. **(AI 158-4)**

2. Assumption Matrix

Mr. Drake reviewed version 4 of the assumption matrix at the meeting.

Under proposed new units (non-renewable), Mark Younger (Hudson Energy Economics) said that we would probably know more about Danskammer units that may be coming back by the next meeting.

Scott Leuthauser (HQUS) said that Greenwich coal plants lost its CRIS rights but is looking to return to service. Mr. Younger said that it will take some time, at least after next year summer, before it will be back in service due to class year studies.

Chair Hogan sent out the updated Renewable Generation list for the members to review. She stated that we typically follow RPS contract award timing, and last year there was an issue with contracts not being awarded in time. This year, we would focus on 8th main tier solicitation projects to include in the model. Marsh Hill Wind Farm (17.8 MW) would be the recommended wind unit would be added into the model, based on RPS screening criteria.

Mr. Younger requested that if possible, he would like to see wind resources be separated out from the other renewables. (solar, bio energy, fuel cells, etc.) Mr. Drake said there's a table in the assumption matrix that is simplified and included only wind units. Mr. Drake will provide a simplified renewable project list. **(AI 160-3)**

When LIPA's was asked for an update for Feed in Tariff, Yuri Fishman (LIPA-PSEG) said that it is behind the meter. Mr. Younger said that it shouldn't be

included since it is used to reduce the peak load forecast. Mr. Fishman confirmed later that the load forecast already included the Feed in Tariff MWs.

The NYISO would like to update the large hydro model with a new study, since it was way too conservative. Mr. Younger questioned why the derates are considered conservative. This is due to St. Lawrence, Niagara hydro units have rebuilt their turbine, and there would be less derate due to these turbines. Mr. Drake said that the old study (circa 1998) was about 1% derate, but the new study could yield 0.5% instead, which is quite large when the plant is thousands of MW. Mr. Drake said this would not be included in this year's model, but he will return with a report of the new study. **(AI 160-9)**

The NYISO will monitor the capacity sale from New England Capacity Reconfiguration auction and exclude capacity sold to the neighboring pool when appropriate. Mr. Ahmed and Mr. Boyle suggested that the NYISO check to see which units are sold to New England at the time of lock down, and exclude those based on the most recent information available. Chair Hogan asked the NYISO to list the long term sale, separately from the ones that are from the forward capacity market.

Mr. Drake said that Con Edison and LIPA need to provide the cable transition outage rates. Vice Chair Chu and Mr. Fishman said it will be available within a week or so. **(AI 159-5)**

The NYISO is recommending MARS version 3.18 for this year's study.

Mr. Fishman said that all solar projects from enXco are reflected in the load forecast/behind the meter, thus they should be excluded from the model as their contribution is already accounted for in the load forecast.

The NYISO said that all attachments will be updated by 6/27/2014.

The matrix is missing attachment E2, which is the topology of New England, and Chair Hogan and Mr. Adamson wondered if it is necessary to include in the report. Vice Chair Chu said that the topology is very important for quality

assurance. Quality can't be assured if the topology was not included since the configuration of New England power pool can't be verified.

Mr. Adamson requested that the NYISO provide the new version of the assumption matrix by 6/20/2014. **(AI 160-7)**

3. Load Forecast Uncertainty

Arthur Maniaci (NYISO) attended the meeting and discussed the result of the NYISO LFU study. Mr. Maniaci said that the model changes were mostly driven by weather.

When compared to 2014 model, the 2015 LFU model had some slight increases at the top bin for areas A-G and K. Areas H-J had a slight drop in the top bin.

Mr. Boyle asked if the NYISO would be creating LFU bins for G-J. Mr. Maniaci said they don't need to because MARS does each zone individually already.

Mr. Ahmed questioned if the uncertainty should be normally distributed. Mr. Maniaci responded that the weather has a normally distributed behavior, and thus the load ended up behaving normally distributed as well due to their direct correlation. He described the non-linear correlation and commented that MW response varies depending on the weather condition.

Mr. Ahmed wondered where is 100% for H-I and J in the LFU table. Mr. Maniaci stated that due to the 1-in-3 design Con Edison employs in the load forecast, 100% is not the middle bin and is not shown.

Chair Hogan asked the group if LFU should be approved at this meeting. Mr. Adamson said yes. Mr. Maniaci said that since the results here are preliminary, he will be bringing this to LFTF group for concurrence. Chair Hogan and Mr. Boyle agreed that Mr. Maniaci should return at the next meeting to finalize the LFU results. **(AI 160- 1)**

4. Summer Demand Response

Vijaya Ganugula (NYISO) returned to the group with the breakdown of the NYISO recommended SCR values to be modeled in this year IRM base case.

Mr. Ganugula recommended that 778.3 MW to be modeled in the study. The amount is derived from SCR enrollment gold book forecast of 1188.8 MW ICAP with ACL performance factor derate, ACL to CBL translation factor of 90%, Effective Capacity Value of 95%, and no Fatigue factor this year. NYCA effective SCR derate is therefore at 65.5%.

Mr. Younger asked if the 4 hours used for ACL to CBL translation is the same as the ACL best 4 hours. Mr. Ganugula said yes. Mr. Drake emphasized that the column A will change, based on the actual July SCR enrollment amount.

The NYISO will return at the August meeting with the actual July SCR enrollment amount. **(AI 160-2)**

5. Topology

Bill Lamanna (NYISO) presented the new MARS topology for the IRM study.

Mr. Lamanna pointed out the major changes, which included a new Zone A group interface with 5 dynamic ratings, along with Dysinger East, CE Group, and Central East + Fraser Gilboa. Both Dysinger East and Zone A Group interface are due to Huntley/Dunkirk outages. CE Group and CE+FG are affected by Oswego Complex Units.

Mr. Leuthauser asked if there's enough time for the NYISO to model the 4 new nomograms. Mr. Lamanna said yes.

Mr. Ahmed asked how come the nomograms are needed this year, since in the past the units can be offline due to outages, yet we didn't need the nomograms

last year. Mr. Younger said that the NYISO did some analysis last summer and found some interface limitations due to unit outages. Mr. Ahmed was very concerned about the incremental impact being meaningful if the nomograms are implemented, since last year's base case and this year's base case have some vastly different interface ratings.

Mr. Boyle would like to see similar tables for all of the nomograms that are modeled, in particular J to PJM interfaces. **(AI 160-6)**

Mr. Leuthauser asked which of the Huntley and Dunkirk units are referenced by the table. Dunkirk 3 and 4 plus Huntley 67 and 68 are the 4 units, according to Mr. Lamanna.

Vice Chair Chu wondered why Dysinger East, being a part of the Zone A group, has a higher rating than the group in the "any 3 out" condition. Mr. Lamanna said that due to loop flow, there are negative flows that reduced Zone A group rating. The loop flow, which would be a negative number, when added to the interface group, will reduce the group rating, and in this case, even less than Dysinger East rating on its own.

Vice Chair Chu also asked about the missing Total East interface, since in the past it was always listed in topology. Mr. Lamanna said it was removed from the model since it comprise of all the lines that's already in the model that belong to the group.

Chair Hogan reiterated that according to the status of the Huntley/Dunkirk units, Dunkirk 3 and 4 aren't even in service in the model. Thus, the maximum limit Dysinger East and Zone A group can reach is only "any 2 out". The members asked the NYISO to put a footnote for the units that are involved in the nomogram table. **(AI 160-4)**

Due to Mr. Ahmed's concern about comparing very different base cases with the introduction of these nomograms, Mr. Drake will put in all of the new nomograms in last year's model to see the LOLE changes, in addition to the preliminary base

case for this year. If the change in LOLE is significant, the NYISO will look at the IRM change. **(AI 160-5)**

Mr. Ahmed asked the reason for transfer limit from Neptune to PJM east being 0. Mr. Younger said that PJM does not accept injection from LI to PJM east.

6. MARS New Modeling Features

Mr. Drake presented an example on the new daily peak logic. The concept is that if the peak occurred at a specific time in one year, the LOLE metric calculation would apply to the same hour for the OTHER SHAPES. The result is that another year may have peak at a different hour and resource shortage events would not have been captured. The new logic would have had the model look at the peak hour of its own respective shape.

Mr. Adamson cautioned that we should look at the impact of this new function before incorporating this into this year's study. Mr. Boyle, Vice Chair Chu, and Chair Hogan agreed and the group recommended that the NYISO should turn on the new function as a sensitivity case and see the impact on the IRM model. **(AI 160-8)**

7. CRIS vs DMNC

Bart Franey (National Grid) presented slides outlining his concerns about using deliverability to determine the amount of MW a unit can provide to the system. He is concerned with units that do not have CRIS do not necessarily equate to inability to support the system in the probabilistic model. Mr. Franey is supporting using DMNC ratings, instead of the lesser of CRIS or DMNC.

Mr. Boyle asked the NYISO about the concept of excluding unit capacities that may not be in the capacity market, but is capable of providing power in the energy market. Mr. Boyle suggested that, and Mr. Franey agreed, we would

model the units with DMNC and the interfaces will accurately capture the deliverability limitation.

Mr. Drake asked Mr. Franey if the suggestion here is to model the DMNC and let the transition rates derate the unit probabilistically. Mr. Franey said that he's suggesting using DMNC rating, and leaving the probabilistic characteristic the same as it was before.

Vice Chair Chu asked Mr. Franey that if we only consider DMNC under his suggestion, when we model wind units and their DMNC is their nameplate rating as per tariff, how do we reconcile the problem that the IRM will have more MW than what is actually available at the time of need? The example given was a 200MW wind, and if the NYISO modeled DMNC of 200 in the model, the IRM of that year would include the 200 MW of ICAP in its percentage calculation. Yet in reality, given that wind only has a performance of 18% of their rating, the LSE would need to acquire 117% that is made up of the all the other MWs + 200 MW of this unit. In reality NYCA would be short this 164MW under 18% performance factor. Mr. Franey response was that LSE is purchasing UCAP. This topic is postponed until the next meeting for Policy 5.

8. Policy 5

Mr. Adamson stated that the process to update Policy 5 was already in motion earlier in the year. He said that the version that was reviewed by the ICS members contained edits from John Adams (NYSRC- Consultant) and Mr. Adamson. Mr. Adamson was concerned that the NYISO submitted, afterwards, a version that did not include any of these edits. There was some confusion about which version would be used and Chair Hogan spent a lot of time compiling all of the changes. Mr. Adamson said that the group should take some time later on this year to outline the update process to avoid future confusion on the revisions that would be acceptable to all.

Vice Chair Chu stated the other concern was that due to the amount of changes proposed in the NYISO version of the Policy 5, many of the changes were new to

the group and members did not have time to digest the information with adequate time.

Carl Patka (NYISO) mentioned that the review process is long and they are trying their best to provide the amount of information they had to send to ICS, on time. Mr. Adamson stressed that this is not the only item that the NYISO send at the last minute.

Mr. Boyle said that if the subcommittee can't reach a consensus in time for this upcoming EC meeting, we can always present Policy 5 changes at the following EC meeting.

Milestone schedule changes were supposed to be approved by the EC. Mr. Adamson stated that the NYISO cannot go back and change the schedule mid study, which was evident in the NYISO version of the Policy 5 changes. Mr. Boyle said that perhaps we can have the changes to the guideline in the appendix as an attachment every year. Mr. Adamson said the purpose of the milestone schedule was intended to reference the sections that describe the specific tasks.

Mr. Adamson said that he disagrees with the NYISO suggested 200 MW as a measurement of material change. He pointed out, from last year's white paper, that we would include all of the changes by the lock down date. Mr. Drake said that it is not reasonable to assume that everything would be changed late September, and still expect the NYISO to complete the study in time. Mr. Boyle said that we are not going to include every little change, but rather items like new generator or lines added to the system, UDR elections, etc. Mr. Drake was concerned that an EC member has said in the past that everything, even 1 MW, would be introduced. There's simply not enough time to redo the entire model. Chair Hogan doesn't believe the subcommittee would be so unreasonable.

The introduction of the LCM (Locational Capacity Margin) was not accepted by the members. The NYISO clarified that they wanted to distinguish jurisdiction of LCR determination from NYSRC's responsibility. Members mentioned that the reliability rules will need to be modified before LCM can be introduced and

accepted. The NYISO would like to have a footnote stating that the NYISO is responsible for determining LCR and reference the NYISO document that describe the methodology.

On the topic of inclusion date, Mr. Boyle said he was not on board with a floating inclusion date, but he think the subcommittee should think about including all of the units that are proposed to be in service before the lock down date, which is late September/early October. He was confident September would be after the peak of the season, and this would include changes in load forecast, UDR elections, etc. This would be the most updated base case, with all the available information up to that point.

Chair Hogan said that after speaking with the EC Chair, she felt that perhaps one possible way is to have the inclusion date at June 1st, but any changes would be brought to the EC for review. Mr. Boyle felt that was still not adequate, since this rule, any generation that comes in before the peak would not be there to support the system, even though in real life it would have. Vice Chair Chu agrees with Mr. Boyle. Vice Chair Chu further emphasize that the new unit would help the reliability of the system (lower LOLE) if it is available prior to the peak. In fact, it would be very hard to justify a missing unit that the subcommittee “chose” not to include because of the rule, yet we knew almost a year ago that it was slated to appear in the system in July for example.

Mr. Younger said that we would need a white paper on this change because of the calculation method uncertainty of this unit coming in after the capability period has started. Chair Hogan was also wondering if this would create complication on the IRM calculation.

Vice Chair Chu said that the calculation should not be an issue since all the NYISO has to do is to add the capacity together at the time of the system peak to arrive at the numerator and divide that by the system peak to obtain IRM, after all the capacity shifting and removal has been accounted for. If the unit is in before the system peak, it will be a part of the IRM. If it is after, it will not be. This is consistent to its ability to support reliability. On the other hand, if the rule is in place, we would end up with an IRM that’s missing the MW contribution of the

unit that comes in before the system peak, but in reality should have been in the calculation since it actually came into service before the peak, but was not included in the model that derived the IRM.

Mr. Younger and Mr. Patka have commented that the calculation would not work because the unit was not in the system for the entire capability period.

To settle the differences, Mark Walling (GE) commented on the phone since there were two differing opinion on how MARS treats the units. He first agreed with Mr. Boyle and Vice Chair Chu that the unit would NOT be in service until its stated service date in MARS. Next, he corrected Mr. Patka's misconception that the peak within MARS moves probabilistically. Mr. Walling stated that the peak is actually deterministic so the peak time is static. He also said that we would not be over compensating for a unit to be in August and the peak is in June since the unit didn't affect the model until August and the model knows that.

A separate meeting will be set up to discuss these Policy 5 changes.

Secretary: Gregory Chu

(Con Edison)

Next meetings:

Meeting 161, Friday, June 27th at NYISO HQ
Meeting 162, Tuesday, July 29th at NYISO HQ
Meeting 163, Wednesday, September 3rd at NYISO HQ
Meeting 164, Wednesday, October 1st at NYISO HQ
Meeting 165, Tuesday, October 28th at NYISO HQ
Meeting 166, Monday, December 1st at NYISO HQ
