

**Draft Minutes**

**New York State Reliability Council - Installed Capacity Subcommittee (ICS)**

**Meeting #251 – September 1, 2021**

**Webex**

**Attendees** **Present**   **Phone**

**Members / Alternates:**

Brian Shanahan (National Grid) <b>ICS Chair</b> .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rick Brophy (NYSEG/RG&E) <b>ICS Vice Chair / Secretary</b> .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rich Bolbrock (Unaffiliated) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Clay Burns (National Grid).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ruby Chan (CHG&E).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sanderson Chery (Con Edison).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
John Cordi (NYPA) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
John Dellatto (PSEG LI).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Jim Kane (NYPA) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Howard Kosel (Con Edison).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mike Mager (MI) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rich Wright (CHG&E) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mark Younger (Hudson Economics) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Khatune Zannat (PSEG LI) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Advisers/Non-member Participants:**

Alan Ackerman (CES).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
John Adams (ICS Consultant) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
David Allen (NYISO).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Leen Almadani (CHG&E) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Liam Baker (Eastern Generation) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Josh Boles (NYISO) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ryan Carlson (NYISO) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Jie Chen (Potomac) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Frank Ciani (NYISO) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
John Dellatto (Unknown) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cheryl Dietrich (NextEra) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Greg Drake (ICS Consultant) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Kenneth Galarneau (Ravenswood) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ricardo Galarza (PSM Consulting) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nate Gilbraith (NYISO) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ying Guo (NYISO) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Karl Hofer (Con Edison).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Yvonne Huang (NYISO) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Scott Leuthauser (HQUS) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tim Lundin (LS Power) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Norman Mah (Con Ed Energy) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randy Monica Jr. (Unknown).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ben O'Rourke (NYISO) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kevin Osse (NYISO).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Carl Patka (NYISO).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Laura Popa (NYISO) .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Julia Popova (NRG).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Richard Quimby (DPS).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**1. Roll Call – R. Brophy**

- Roll call was conducted.

**2. Introduction and Request for Additional Agenda Items - B. Shanahan**

- Chair B. Shanahan called the NYSRC ICS meeting to order at 10:00 A.M. on September 1, 2021.
- G. Drake noted that there was a request for some Wind data that the NYISO provided but did not get posted. Greg suggested we could talk about that later in the meeting and make sure it gets posted. M. Younger inquired as to the format the data to be posted. Greg thought it was in an Excel spreadsheet but would have to check. The NYISO sent it to him, it was not distributed to others in the group, Greg would follow up and make sure it was distributed and posted.

**3. Approval of Minutes for Meeting #249 and #250 – B. Shanahan**

- Brian noted that the #250 meeting minutes were available but due to an oversight were not distributed to the group or posted with the meeting materials. It was decided that the review and approval of the #250 meeting minutes would be pushed out and included in the October 6th agenda.
- The #249 meeting minutes were approved with a minor typo correction incorporated into the final version.

**4. Review of Action Items List – B. Shanahan**

- 220-1: Ongoing, to be reported on in the fall. Will check to see what if any Public Appeal data we have this year.

- 233-1: Tracking for a future white paper.
- 247-1: Have a presentation today on this – updates to the new generator assumptions and plans for a lessons learned session. NYISO hoping to do the lessons learned after the FBC assumptions are in.
- 247-2: Brian is still going back and forth with R. Clayton on these goals, basically regarding the for goals 2022.
- 247-4: Brian is working on this and expects to have something to review at the October 6th meeting.
- 247-5: Different from 249-15. NYISO has already provided aggregated outages rates for all of the NYC and LI cables together (247-5). M. Younger had requested NYISO provide separate outage rates for the cables terminating on LI and for those terminating in NYC (249-15). K. Osse said that the NYISO took back Mark's request and determined that they are not comfortable sharing the information disaggregated. Kevin explained that they spoke to both Con Edison and LIPA and asked them if they were comfortable disaggregating the data – they were not. H. Kosel added that for the NYC piece, although there are three different owners the bulk of the weighting (almost 3/4) is assigned to the Dunwoodie-South interface, so Con Edison is not comfortable providing that data. J. Dellatto said that there are different owners for the cable coming in to LI but they do have a similar issue to Con Edison's concerning the data. After hearing the reasoning behind not providing the disaggregated data Mark said that he considered AI #249-15 resolved. AI #s 247-5 and 249-15 will be marked as complete.
- 247-7: In progress, an item for the FBC. Should have an update at the October 6th meeting.
- 247-11: F. Ciani confirmed a date has been added and is on the document sent out for the October 10th EC meeting materials.
- 247-14: Brian, Roger, and A. Adamson have discussed this. The updated version was presented at the August 4th meeting. Discussion mainly centered on coming up with a Phase 3 High Intermittent Renewable Resource type study that evaluates IRM impact. The goals document has an A1 Action to generate a scope document for performing this study by the end of 2022. Assuming this what ICS wants to do into next year, we will need to be working on a scope. The scope is due to the EC by the end of this year.
- 249-18: Redundant to 247-14 – Brian will merge them together. Will move the date out because we need the buy-in from all parties this fall.
- 250-1: On today's agenda.
- Greg suggested adding an AI to provide the aggregated wind data. Brian said he did add an AI on his updated list for NYISO to provide aggregated wind data – 251-1. Will be on the October 6th agenda. Aggregate Wind Data from 2016-2020 will be posted with the September 1 meeting materials under "Supplemental Materials."
- H. Kosel had a question concerning 220-1 – EPO tracking of Public Appeals. Howard wondered if this needed to be an action item or whether it would be just part of our normal process of updating the EOP steps in the model.
  - Brian said that in the past LIPA was the only one that actually had a MW value for public appeals and none of the other NY Utilities did. This was added because there was a desire by the EC to monitor this going forward to see if these numbers changed.
  - M. Younger mentioned that the only way to track this is for the TOs to provide the information, the RC and the NYISO do not have this information. Mark offered to help write-up what questions need to be asked of the TOs (which would then have

to approved by the EC.) We could track this if the TOs give us the information we ask for, the information we need.

- Brian gave Mark the go-ahead and frame some questions and then we could ask the EC how to go about soliciting this information. NYISO suggested Mark circulate his draft questions to the broader group so we can get everyone's input as they get developed. Once completed, we'll bring them to the EC for a final review.
- Howard said that this should be part of the modeling phase and questioned if it should remain as an action item. Mark suggested it was on the AI list because 1) there was a request from M. Mager to get data from all the TOs and 2) this is the first time we're doing it and what data we get back would help us determine how to deal with it going forward.
- Mike said he didn't care if it was an AI or it is included as part of the normal process. He said that if TOs are issuing public appeals, he hoped they were taking steps to measure the response. Mike believes it would be informative for our purposes and maybe the NYISO's purposes. He thinks we should track this if there are public appeals being issued.
- To answer Howard's question, Mark offered that If we develop a set of questions, send them out annually, and it becomes part of the process there is no need to keep it as an action item.
- C. Patka remembers going to the EC and having this discussion already. We determined that LIPA keeps this information because they make an adjustment while the other TOs really don't. Mark said he believes Mike still questions why LIPA does this and no one else. Mark said that maybe this dies when we issue the questions again and the other TOs respond with – no, we didn't issue a public appeal or we did, but we don't know definitively what the response was and we don't think it is something we can count on in the future.
- Mike said there is a tension between not knowing what the right number is versus is zero really accurate. His suspicion is that if any TO issues a public appeal there would be some response, not zero. But in the absence of data, we don't have a rationale to change things.
- Howard said that to the extent a TO calls public appeals, that data gets imbedded into weather adjusted peak for the year before. It's already imbedded in their load forecast. Howard said there is no need to put a number here, it's just imbedded in our weather adjusted peak which is a starting point for our forecast for the next year. So we have to be careful with how we treat this, it's not a simple thing. If LIPA counts on public appeals, they have to add it back to their load forecasts – it's baked in to ConEd's process.

#### **4.1. New Generator Assumptions Update (action item 247-1) – Y. Guo**

- Ying reviewed the update assumptions which included 11 Projects, 5 new generators and 6 existing generators, which were granted the Deliverable MWs.
- Regarding Uprates for existing projects that go through the Expedited Deliverability Studies (EDS), once the Deliverable MWs are awarded they will have to go through the customer preparation process with the Installed Capacity Market Operations (IMO) team so they can sell those additional MWs in the market. It's a much faster track compared to the normal customer registration process because they are already registered. For the uprates with the same injection point process is simple, it's just a matter of updating the software representation so the additional MWs can be captured. If the uprate resulted in a separate injection point a much longer process would be required including setting up a new PTID.

The requested CRIS MWs is modeled, the final amount of MWs they can sell is determined via a DMNC test.

- M. Younger voiced a concern regarding uprates as to whether these units have made the necessary changes by next summer so they can produce at the higher level. NYISO said that the expectation is that all the projects that were part of the EDS study will be in. They will doublecheck with the IMO to make sure there are no issues.
- The proposed process for screening new generators for recommendation in the IRM study was discussed.
  - Mark raised a question as to what the screening method in the long-run should be – what should be counted, what should not. How much weight should be put on customer registration, both for the PBC and the FBC with the understanding that maybe you put different weight on it for PBC vs. the FBC. Mark thought there needs to be a discussion about this after the FBC is complete. Brian said we would be following up on this going forward.
- After the 2022 IRM study, the NYISO plans to conduct a lesson-learn session to explore improvements to new generator screening criteria with the understanding that any resulting improvements could be applied starting in the PBC of the 2023 IRM.

## **5. Chair Update on Recent EC Actions – B. Shanahan**

### **5.1. Update on 2022 NYSRC Corporate Goals (AI 247-2)**

- A1.: This would have to focus on the conditions the CLCPA is requiring going out in time. It makes sense to focus on 2030 for the study at this point. We also want to look at the timeframe – 2030 vs. 2040. The NYISO presented a Future Renewables study as part of the CRP ([2021-2030 CRP](#)). Brian not sure it would specifically address this goal, but it is informative. Brian expects there will be some concern about duplication of effort between various studies that are looking at this issue generically. RRS will be discussing this at their meeting and it will probably go back to the EC for further discussions.
- B3: ICS is not tasked with this but would probably have some input with RRS.
- C1: We are including the impacts of increasing DER penetration and ELR modeling improvements in our IRM determination this year. Is an ongoing item with ELR modeling, as our understanding advances the modeling will be continuously improved.
- C2: Brian will do some initial work on this and will have something for review and discussion at our next meeting.
- C3: Will be included in this year's IRM report and in future studies.
- E1 & E2: We'll collaborate with the other committees re review of/participation in papers, webinars, meetings, etc.
- Roger Clayton will be going over these at the RSC and we can further revise this if needed.

## **6. Status Update to Milestone Tasks for the 2022 Study – N. Gilbraith**

### **6.1. Update on GE Review of PBC Data Base – N. Gilbraith**

- Nate said GE has the database and NYISO/GE are in the process of conducting a QA/QC review. The milestone for the final QA/QC review is 10/6 and they will have that. There haven't been any issues currently.

### **6.2. Update on TO/NYISO Review of PBC Data Base – H. Kosel, K. Zannat**

- F. Ciani uploaded it for the TOs' (ConEd & LIPA/PSEG) box accounts today. He had reviewed the masking from GE and everything was okay. S. Chery said that he was looking at their box

account and didn't see it yet. Sanderson will talk with the NYISO offline to get it straightened out.

## **7. Review of 2022 Preliminary Base Case Tan45 Results – For Acceptance – F. Ciani**

### **7.1. Tan 45 Curve Points – F. Ciani**

- Frank reviewed the final Tan45 points for the PBC. The data associated with the curves was also reviewed along with the process used in the regression analysis.
- M. Younger asked if it was possible for ICS to get some more information out of the PBC and, going forward regularly out of the FBC. Mark's recollection was that MARS can print out the interface constraints – how often different interfaces are constrained in the modeling. Wondered if that was something that was easy to produce. Frank said the MARS does produce those tables. He would have to take that back to see exactly what they could produce and provide, and in what format. Mark thought that starting to provide that information would help everybody's understanding a little better. The NYISO has generally provided it in the past when a question came up. He would like to see it as a regular thing. Frank asked Mark to provide a more detailed explanation of what he wanted because there is a massive amount of data available. Mark, Frank, Nate, and Greg will have an offline discussion later to fine-tune the request.
- M. Mager had a question concerning the accuracy of the PBC parametric results vs. the final Tan45 results. Mike recalls that last year there was a significant difference in the results which raises the question as to how reliable the PBC parametric results are and whether this is a potential issue again this year or is it close to what the final numbers are going to be.
  - Frank said that folks need to be aware that when the parametric is done NYISO is looking at individual changes to see if its magnitude and direction are correct, but when adjustments are made to bring the system back to 0.1 LOLE they may be making adjustments to upstate only or downstate only. These are cumulative changes over some 30 to 40 parametric cases that they track (when NYISO reports to ICS they may only report 15 because some of the results are aggregated). They are making these cumulative changes over 30 to 40 MARS runs to arrive at a PBC parametric result. Then at the end of that process they remove all of those adjustments, start with the as-found system, and perform the process to determine what the Tan45 is. As the parametric is being done it will not always be on the Tan45 curve and depending on how far off it is will determine in how different the parametric result is from the Tan45 result. Frank said we are always going to see a difference between the parametric and Tan45 results and that the Tan 45 is the "gold standard" result to look at, not the parametric.
  - G. Drake commented that the parametric results were 18.9% and the Tan45 results were 18.6% and it implies that our parametric results are very indicative of the Tan45 but thinks it is somewhat deceiving. Mike said that every year there is a variation between the parametric and the Tan45, it just seems that last year the variation was abnormally large. Looks like maybe it was just a one-time thing. Frank said last year was the first year we modeled the ELR and thinks that had a big part of why there was a large delta last year. This year the ELR model from last year was already incorporated into the starting base case. So now there is only a delta from when we updated the ELR data from last year to this year.
- The 2022 Preliminary Base Case Tan45 Results were approved by the ICS and will be provided to the EC.

## **8. Review of PBC Table 6-1 – For Acceptance – G. Drake**

- This is an analysis we have every year for a number of years for the FBC which ends up going into the report as a means to explain the differences between last year's value and the new value. In the last couple of years we've been asked to do it on the PBC. Greg felt it was important to give some qualifiers for this review because in the past there have been some large differences between not only the parametric results and the Tan45 results but between the PBC values and FBC values. We need to review the results in light of knowing there will be some changes that could have a significant impact – an updated load forecast coming next month, possibly some additional new/rerated units to model, and changes resulting from the QA process. Greg expects there will be significant changes to some of the parametrics in the FBC.
- Greg walked through the parameters and the reasons for their +/- impact on the 2022 IRM compared to the 2021 IRM.
- J. Cordi asked if Greg or anyone at the NYISO was aware of anything we are waiting on that is new that will significantly change this. Nate responded saying the Kevin Osse was going to walk us through the parametrics that they have lined-up for the FBC. Nate said they don't have anything major that they know about right now with the caveat that a large system change could occur before we lock down the database, but at this point they don't know of anything large like that. They don't expect to be making any system changes for the FBC.
- The Table 6-1: Parametric IRM Impact Comparison – 2021 IRM Study vs. 2022 PBC IRM was approved by the ICS and will be provided to the EC.

## **9. Status - Final Base Case (FBC) Assumptions Matrix – K. Osse**

- The NYISO did not have the Assumptions Matrix document available for review at this meeting. The milestone schedule has the ICS approving the Final 2022 IRM Base Case Assumption Matrix at the October 6th meeting. ICS agreed that we need to review the document prior to the meeting if possible, just posting it with the 10/6 meeting materials would not afford members enough time to adequately review it. The group thought that posting 2-weeks prior to the meeting would work.
  - The NYISO said they could have a draft document ready for that, however, they are not sure all the data will be in there to be approved. The final Load Forecast data would probably not be updated, but the NYISO may have the final numbers they could verbally share at the meeting. NYISO said the LIPA Topology changes would be ready, the new/uprated generator information could also be included but maybe not – they will put in as much as is available. NYISO will let the ICS know what has been updated and their expectations for the timing of the updates to the remaining assumptions for the final Assumptions Matrix document.
- Kevin Osse was tasked with getting the document out to ICS.

## **10. Additional Agenda Items**

- Frank said that the NYISO is moving to the Microsoft Teams based video conferencing platform, Webex will be gone by the end of the year. When they do the switchover they will send out new meeting invitations. Frank wasn't sure whether the October meeting would be using Teams but probably the November 3 meeting would.
- Greg informed ICS that the Aggregated Wind data is in Excel. He had to send it for posting as a PDF but once that is posted he will send out the Excel version.

- Greg mentioned that at the Next meeting where we approve the Assumptions Matrix it would be useful to know the status of the GE/TO/NYISO database review. It would be good to know if there were some substantial changes that were a result of the database review. NYISO indicated they would be able to give the results of their review, are working with GE on their review of the data, and will touch base with ConEd and LIPA to make sure they have access to the data for their review.
- Brian reviewed the milestones for the October 6 meeting.

**Next Meeting**

**Meeting #252 – Wednesday October 6, 2021, 10 am – Webex**