

Meeting Minutes

**New York State Reliability Council - Installed Capacity Subcommittee (ICS)
Meeting #254 – November 17, 2021
Microsoft Teams**

Attendees **Present** **Phone**

Members / Alternates:

- | | | |
|--|--------------------------|-------------------------------------|
| Brian Shanahan (National Grid) ICS Chair | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Rick Brophy (NYSEG/RG&E) ICS Vice Chair / Secretary | <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"/> |
| Patti Caletka (NYSEG/RG&E) | <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 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:

- | | | |
|--|--------------------------|-------------------------------------|
| John Adams (ICS Consultant) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| David Allen (NYISO)..... | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Josh Boles (NYISO) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Andrea Calo (CES) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Ryan Carlson (NYISO) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Frank Ciani (NYISO) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Michelle D'Angelo (Con Edison) | <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"/> |

Norman Mah (Con Ed Energy)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Maddy Moheman (NYISO)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randy Monica Jr. (DPS)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kofi Nimako (NYSEG/RG&E).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Otito Onwuzurike (NYISO)	<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"/>
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

- No requests for additional agenda items.

3. Approval of Minutes for Meeting – B. Shanahan

3.1. Meeting #253

- Minutes will be reviewed at the 11/29/21 meeting.

4. Review of Action Items List – B. Shanahan

- 220-1: Mr. Shanahan sent out the survey questions to the ICS TO reps.
- 233-1: We will be discussing this in more detail next month because it is on the list for possible white papers next year.
- 247-2: Ongoing. There were some comments on the Corporate Goals at the last EC meeting. The one action we did have for the end of the year was to update the ICS Scope document which was presented at the last EC. Pending any additional changes or comments we'll be done with that in December.
- 249-17: Addressing today.
- 253-1: Will have some information on this today.
- Current White Paper Topics: Two are completed, one will be done in January, two are TBDs.

5. Chair update on recent EC actions – B. Shanahan

5.1. Update Status on Public Appeal Questions for TO's (AI 220-1)

- Mr. Shanahan has heard back from CenHud, NatGrid, and NYSEG/RGE, has not heard back from LIPA, ConEd, or NYPA and will be following up with those TO reps. So far the answers have been that there have been no Public Appeals for load reductions called this year.

5.2. Final Base Case and Tan45 Approval Status

- The EC approved the Final Base Case and the Tan45 results output.

5.3. Update on EOP calls

- The EC had a discussion about the EOP calls, nothing was resolved. We are going to have another presentation on that today and some EC members are interested in the discussion and may call in to hear our discussions on that issue today. They were interested in the number of EOP calls being generated by the model – down to 38 calls, and with the ELR sensitivity it is reduced even further.

6. Final Base Case Quality Assurance Review Acceptance – N. Gilbraith

6.1. NYISO reports any changes based on final base case review

- Mr. Gilbraith informed the ICS that ConEd and LIPA have completed their reviews and reported that no changes were needed.

7. First Draft 2022 IRM Report Review / Comment Discussion

7.1. IRM Body and technical document – J. Adams

- Page turner review of the updates since our last review which included ICS member/NYISO comments and additional language.
- Additional edits were made at the meeting to clarify some of the language in the report.

7.2. IRM Appendices report – J. Adams

- Page turner review of the updates since our last review which included ICS member/NYISO comments and additional language.
- NYISO is working on the data/tables/sections they still need to update. They plan to have the changes in by November 19th to meet the posting requirements for our final review at the November 29th meeting.

- ICS will do their final review and approval at the November 29th meeting, the report will then go to the EC for their approval at their December 3rd meeting.

8. Special Sensitivity Cases

8.1. ELR Sensitivity ICS 20211007 with FBC Results Updated – Y. Huang

- NYISO performed a ELR sensitivity with the PBC. The results showed a 0.8% reduction of the IRM. It was agreed that there would be another sensitivity run using the FBC. It would give us one more datapoint for comparison before full adoption of the GE MARS model next year.
- Ms. Huang presented the graph for the Tan45 with the ELR sensitivity. The FBC results were similar to what we saw with the PBC, again we're getting an 0.8% reduction of the IRM. So with the FBC IRM of 19.1% we are getting an IRM of 18.3% with this ELR sensitivity. There is also a small movement in the LCRs of 0.1% – 0.2%. In general this is consistent with the PBC sensitivity run. This information will be in the report.
- NYISO plans to do a full adoption the GE ELR model next year. There are a couple things they want to do before full adoption. First, there is some improvement that is planned to capture the unit outage rate in the ELR model as well as the fixed output shape. Once that improvement is implemented they want to do a quick test to make sure everything is right. And with that they also want to confirm the final modeling configuration – combining the TC-4C configuration and the unit outage rate and finalize that. In parallel, Planning is also preparing a full adoption of the GE ELR model in their planning studies – next year there is an RNA to be done and the quarterly STAR study as well. They are currently doing some testing of that same configuration in their planning study database. NYISO wants to leverage that testing to make sure there are no unintended consequences of this modeling. Ms.

Huang expects results to start coming out early next year in time to include in the assumptions for next year's PBC.

8.2. PSEG-LI Cable Outage Rates (Y49/Y50) Update – Y. Guo

- Ms. Guo reviewed the sensitivity case results. The results table showed there is only a slight decrease in the IRM, which is due to rounding.
- When asked what the transition rate that is normally used was Mr. Gilbraith explained that the transition rate data for each of the individual cables is confidential. The NYISO released aggregate outage rate data as part of this year's IRM study – it's in one of the appendices and the assumptions matrix, so you can see across all the controllable cables the average outage rate.
- The decreased Zone K intertie value was in effect for the entire year.
- The sensitivity was done on an informational only basis. The sensitivity was done at the request of LIPA, they wanted to see what the impact would be for a decreased Zone K intertie situation. It is not part of the IRM study and will not be going into the report.
- It was agreed that this information should be shared with the EC.

9. Additional Agenda Items

- **Activation of Emergency Operating Procedures (EOP) in the IRM – N. Gilbraith**
 - The NYISO performed an analysis of activation of EOPs in the IRM study. Mr. Gilbraith walked through some 2021 – 2022 Cases with modeling changes that gave some background on how we arrived at where we are today in terms of the number of EOP activations used in the IRM study.
 - MR. Younger asked for additional information regarding the removal of maintenance applied for the approved 2022 IRM FBC. Mr. Gilbraith confirm that they took all of the maintenance out of the shoulder months. NYISO has a prohibition on maintenance over the summer months so there was no maintenance to remove from the summer months. LOLE events occur during the summer months, the maintenance that was removed in the other months of the year and did not have an LOLE impact, as expected.
 - Mr. Younger asked why that adjustment is appropriate. Mr. Gilbraith explained that what they saw was that maintenance was driving increased EOP activations – 28 additional days due to maintenance. Looking at maintenance, some months had very high EOP calls and other months with very low EOP calls. They explored shifting maintenance from the High EOP months to the low EOP months. When they did that they brought maintenance down substantially. Through some manual shifting and redistributing maintenance such that it didn't cause EOP events they were able to achieve 20 of the 38 days a year with still modeling the same amount of maintenance. As they moved the maintenance around they saw EOPs fall with no change in LOLE. Doing due diligence, and looked at how does MARS schedule's it. They found that when scheduling maintenance MARS doesn't have any consideration for whether it is triggering EOP events or not in a similar way to how our ELR modeling is – in a fixed shape that can sometime trigger EOP events because it is not flexible. Having this completely inflexible schedule causing EOP events doesn't make a lot of sense when our operators are able to ask people to return from maintenance or schedule maintenance during periods of low system stress, to assume there are going to be large quantities of maintenance during

- periods of system stress. That notion was bolstered by the fact that once they removed all the maintenance they saw that it didn't affect the IRM – so it's not driving outages and it's not driving LOL events. It's an inflexible algorithm for maintenance they think should be improved in the future and believe removing maintenance is an important first step. Mr. Younger asked that this information be included in future discussions of the issue.
- Mr. Gilbraith reviewed a series of test cases the NYISO is conducting either at the request of the EC or they believe are interesting observations in exploring why EOP calls continue to be above historic levels.
 - Mr. Younger questioned the validity of how some of the cases were framed and had questions regarding details for some of the cases.
 - Mr. Younger asked for a separate presentation on the case allowing imports before EOP – advancing the Emergency Assistance (EA) from the externals. Mr. Gilbraith explained that this was a request that came from the ICS and EC and given the short timeframe they have been working on it he understands that there are open questions about what the results mean, how to interpret them, and what the right approach for modeling EOPs should be from a high level perspective in terms of getting the answer right, not only on EOP calls but also on what the right IRM and what the right series of steps are. Mr. Gilbraith agreed that additional analysis needs to be done.
 - Mr. Kosel asked if the last three cases brought the LOLE back to criteria. Mr. Gilbraith said it was mixed, they ran numerous cases and he would have to review the results for the specifics for these three. Ms. Zannat also wanted to have specifics on the Emergency Assistance case. Mr. Shanahan asked if the NYISO would be able to provide updated information at our November 29th meeting. NYISO was doubtful given the short posting timeframe.
 - Ms. Huang noted with regards to shifting EA, the purpose of them trying a few test runs and bringing the results to the ICS is to demonstrate that moving EA around the EOP steps has an impact on the result and it requires additional analysis – we can't come to a conclusion at this point. It might be worthwhile to do a comprehensive study, maybe a white paper, to look further into the scope of what we are trying to do with EA. All the testing they have done is trying to see what it does to EOP by moving it to different steps. For the IRM study, the focus is really on the IRM impact but they haven't actually done that. She is concerned that sharing results with multiple different runs without a clear scope of what we are trying to solve just leads to more confusion and discussions that will probably not help us in future IRM modeling improvements.
 - Mr. Shanahan noted that we will be discussing white paper prioritization for next year at our next meeting, this will be on the list.

Next Meeting

Meeting #255 – November 29, 2021, 10 am – Microsoft Teams