

Draft Minutes

**New York State Reliability Council - Installed Capacity Subcommittee (ICS)
Meeting #279 – August 2, 2023
Microsoft Teams**

Attendees **Present** **Phone**

Members / Alternates:

Brian Shanahan (National Grid) ICS Chair	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rich Bolbrock (Unaffiliated)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Clay Burns (National Grid).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sanderson Chery (Con Edison).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ayman Elkasrawy (NYSEG/RG&E)	<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"/>
Chris Wentlent (MEUA).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mark Younger (Hudson Economics)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Athar Hilme (PSEG LI).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Advisers/Non-member Participants:

Kristine Agati (AVANGRID)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alan Ackerman (CES).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
John Adams (ICS Consultant)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Leen Almadani (CHG&E)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Richard Bratton	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Andrea Calo (CES)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Josh Boles (NYISO)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lucas Carr (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gabriel Centi	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Anand Chandrashekar (NYISO)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Patrick Danner (NYPA)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Timothy Duffy (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emily Fernandes (NYISO)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Josif Figueroa (NYISO)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Grant Flagler (Con Ed Energy)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Henry Fox (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Steven Gill	<input type="checkbox"/>	<input checked="" type="checkbox"/>
William Gunther (Con Edison)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Chris Hall (NYSERDA).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Karl Hofer (Con Edison).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Yvonne Huang (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dan Jerke (CPV)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Gary Jordon (ICS Consultant)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Riaz Khan (NYISO)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Caroline Kucher.....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Scott Leuthauser (HQUS)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mikaela Lucas (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tim Lundin (LS Power)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Madeline Mohrman (NYISO).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Randy Monica Jr. (DPS)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kathleen O'Hare (NYISO).....	<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"/>
Pallas LeeVanSchaick (Potomac).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Julia Popova (NRG).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Bianca Prinsloo (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Richard Quimby (DPS).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Max Schuler (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sushil Silwal (NYISO)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Zack Smith (NYISO).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Michael Swider (NYISO)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mairead Walsh	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dylan Zhang (NYISO)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

1. Roll Call – B. Shanahan

- Roll call was conducted.

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

2.1. Updated ICS Roster – PSEGLI changes

- John Dellato to be removed from the roster and to be replaced with Hilme Athar (Member) and Thomas Primrose (Alternate).
 - A PSEGLI email is required by NYISO to send database.
- 3. Approval of Minutes for Meeting #278 – B. Shanahan**
- 3.1. Meeting #278 – B. Shanahan**
- Minutes Approved.
- 4. Review of Action Items List – B. Shanahan**
- 4.1. ICS 2024 Goals Discussion – B. Shanahan**
- Action Items**
- 220-1 and 257-1 still in place.
- White papers**
- *Load Forecast Uncertainty*: completed.
 - *EOP Review*: NYISO asked for completion date to be pushed to September instead of August.
- 5. Chair update on recent EC actions – B. Shanahan**
- 5.1. EC Action Item on OSW modeling for 2024 FBC**
- There was a discussion with EC on the subject of OSW modelling with the Extreme weather working group. Action item raised to look at OSW in neighboring areas. Discussion on this action item with Brian, Kurt, Yvonne, Gary and others.
 - Suggestion of doing post IRM study on OSW in neighboring area.
- 6. GADS Maintenance & Derate data – J. Adams**
- 2022 Summer Maintenance review similar to that done last year.
 - This year 's data provided by NYISO included BTM solar and DSM.
 - 23 days in which the load exceeded 28,000 MWs.
 - Summer peak load was 30,505 MW in 2022 versus a summer peak of 31,392.9MW in 2020.
 - 461 GADS events included in analysis this year versus 481 last year.
 - Discussion on potential double counting of 9300 generators as planned and forced outage rates.
 - **New Action Item 279-1**: For John Adams in September meeting to further review generator maintenance outage data with respect to the assumed use of 50 MW in IRM, Double counting, use of retired data, etc.
- 7. Review of Final Parametric Results – M. Lucas**
- Since last meeting, the updated material items include external data + policy 5 adjustment. That decreases the 0.37 % and decreases the LCR by similar amount.
 - For non-material items, South Cairo Retirement update was captured due to the updated retirement notice. This retirement reduced the IRM by 0.02%.
- 8. Review of PBC Tan45 Results – Henry Fox**
- Comparison of 2023 FBC and 2024 PBC.
 - Two major drivers in the lower than expected NY-J results which are improvement due to AC Transmission and improvement of cable outage rates (connecting upstate and downstate).
 - AC Transmission project increased the transfer limits towards downstate by about 1500 MW.
 - The outage rate of all cables is reduced from 7% to 4.8% in this year's PBC.
 - Results approved for subsequent TO reviews.

9. ICS Approval Item - Sensitivity Case List – L. Carr

- No change to the first 5 items.
- Discussion on proposal of adding Offshore Wind sensitivity case to this list.
- **New Action Item 279-2:** For Gard Jordan to develop a scope of changes needed to model external area offshore wind using hourly shape September 2023.
- Sensitivity List at the current state is approved.

10. Final SCR Values for the 2024-2025 IRM Study – S. Tripathi

- NYISO calculates SCR zonal performance factors for IRM studies based on historical SCR performance.
- Additional adjustment factors like Translation Factor and Fatigue Factor are used as well.
- Additional inputs from 2023 to 2024 IRM studies is: 13 hours of SCR events in Summer 2022 and 2 hours of SCR performance tests in Summer 2022 and Winter 2021/22.
- Based on July 2023 enrollment, there is 1281 MW of SCR ICAP. Final value is 889 MW with 69.5%.
- 2023 to 2024 decrease of 56 MW in SCR ICAP and 33.8 MW in final value with -0.4%.

11. Propose Process for Updating the ELR Output Window – F. Henry/B. Prinsloo

- Prior to 2021, the elected ELRs were modeled using the simplified approach, with pre-determined output profiles.
- 2021whitepaper recommended using the GE ELR functionalities with the TC4C configurations.
- TC4C methodology explained.
- ELR methodology timeline shown.
- Example of how LOLE distribution window shifts (from last year's sensitivity case for adoption of the new load shapes). The high-risk hours for LOLE shifted to one hour later with the adoption of the new load shape. An update to the ELR's output limitation should be considered. Recommendations for implementation of ELRs.
- NYISO Modelling Recommendations and next steps explained.

12. Research on Defining “Worse Year” for Wind and Solar Outputs – H. Wen

- Currently Resource Adequacy study models the intermittent resources using 5-years’ actual production data which might not capture worst weather impact. Propose to expand to longer horizon (20 years).
- Objective to create a methodology to identify poor production years in a longer horizon. Recommend repeatable process for inclusion of poor weather into Resource Adequacy modeling.
- Core Assumption: Wind and solar output are correlated and are driven by weather.
- Data overview. 6 Total Combinations of Solar and Wind data.
- Definition of poor performance. Bad Hours to hours with “Production /Capacity \leq 10%”. Threshold can be 5% or 15% yielding different results.
- **First Method:** How many Average hours in the year? **Second Method:** how many cases in the year? What is definition of the case? How many hours?
- Cases studies for daytime and Nighttime with 3 hours and 6 hours as the thresholds consecutively.
- Analysis results and Conclusion. Count of Hours $>$ 6. Count values have a higher standard deviation than average methods (best method).
- Recommendation: Focus on daytime – Focus on extreme bad cases - propose 2012 to be the worst year.

- Future Improvement Recommendations.

13. EOP Review Whitepaper Initial Recommendation – Y. Huang / J. Sawyer

- NYISO concluded that the current emergency assistance (EA) assumptions for the IRM study are optimistic and recommended to implement additional topology limits to constraint EA in the IRM simulation.
- **Data Sources and Processing:** IESO (additional processing), ISONE (available), PJM (extracted through mid-Atlantic region data), HQ (Not available, assumed to be 280 MW).
- NPCC seasonal assessment provides operating margins for the upcoming season for all NYCA's neighboring areas except PJM.
- **Analysis for Summer Season Recommendations:** No historical data on extra reserves is available for >95% of the 50/50 Forecast Peak Load.
- Relation (Regression) between extra reserves and the NYCA load.
- **Additional Topology Limits:** Total EA available is 1470 MW (3500 MW with no additional limits).
- **NPCC Summer Operating Margins:** Operating margins for Ontario and New England are negative at 90/10 forecast or above while Quebec has relatively high operating margins at all forecast levels.
- **Initial Recommendation (Summer):** use the outcome from the regression analysis of the historical extra reserves data to construct topology limits for the EA in the IRM study.
- **Analysis for Winter Season Recommendations:** No historical data on extra reserves is available for >95% of the 50/50 Forecast Peak Load.
- No meaningful relationship between extra reserves and NYCA load
- **NPCC Winter Operating Margins:** Operating margins are available across all areas at 50/50 and 90/10 forecast levels. Only Quebec and New England shows negative margins for 90/10 forecast and above. No consistent trends observed across all regions and at all forecast levels.
- **Additional Winter Considerations:** NYISO recognizes the importance of reliability during winter seasons and therefore developed the strategic plan to improve the resource adequacy modeling to properly reflect winter conditions. All neighbors have expressed concerns over the winter seasons.
- **Initial Recommendation (Winter):** apply the summer topology limits to the winter season for the EA modeling. Consider an extreme assumption with 0 MW of EA assumptions for winter.
- Impact of the Initial Recommendations.
- **Process beyond Initial Recommendation:** repeat the regression analysis with historical extra reserves data for any potential updates to the IRM study assumptions.
- **Next steps:** If accepted by the ICS, conduct sensitivity case with the proposed initial recommendation at the PBC. Asking for extension and finalize the EOP Whitepaper Report for ICS review at October meeting.
- ICS approves the recommendations.

14. Additional Agenda Items

- No additional agenda items.

Next Meeting

Meeting #280 – Tuesday, August 29, 2023, 10 am – Microsoft Teams