Draft Minutes

New York State Reliability Council - Installed Capacity Subcommittee (ICS)
Meeting #260 – May 04, 2022
Microsoft Teams

Attendees	**Present**	**Phone**
Members / Alternates:		
Brian Shanahan (National Grid) **ICS Chair**	☒	☐
Noor Leghari (NYSEG/RG&E) **ICS Vice Chair / Secretary**	☒	☐
Rich Bolbrock (Unaffiliated)	☒	☐
Clay Burns (National Grid)	☒	☐
Ruby Chan (CHG&E)	☒	☐
Sanderson Chery (Con Edison)	☒	☐
John Cordi (NYPA)	☒	☐
Ayman Elkasrawy (NYSEG/RG&E)	☒	☐
Jim Kane (NYPA)	☒	☐
Howard Kosel (Con Edison)	☒	☐
Mike Mager (MI)	☒	☐
Chris Wentlent (MEUA)	☒	☐
Rich Wright (CHG&E)	☒	☐
Mark Younger (Hudson Economics)	☒	☐
Khatune Zannat (PSEG LI)	☒	☐
Advisers/Non-member Participants:		
John Adams (ICS Consultant)	☒	☐
Leen Almadani (CHG&E)	☒	☐
Josh Boles (NYISO)	☒	☐
Andrea Calo (CES)	☒	☐
Ryan Carlson (NYISO)	☒	☐
Jie Chen (Potomac)	☒	☐
Michelle D'Angelo (Con Edison)	☒	☐
Grant Flagler (Con Ed Energy)	☒	☐
Kenneth Galarneau (Rise Light & Power)	☒	☐
Ricardo Galarza (PSM Consulting)	☒	☐
Ying Guo (NYISO)	☒	☐

Karl Hofer (Con Edison) ☒ ☐
Yvonne Huang (NYISO) ☒ ☐
Riaz Khan (NYISO) ☒ ☐
Tim Lundin (LS Power) ☒ ☐
Randy Monica Jr. (DPS) ☒ ☐
Pallavi Jain (NYISO) ☒ ☐
Scott Nevins (DPS) ☒ ☐
Otito Onwuzurike (NYISO) ☒ ☐
Ben O'Rourke (NYISO) ☒ ☐
Kevin Osse (NYISO) ☒ ☐
Carl Patka (NYISO) ☒ ☐
Keegan Guinn (NYISO) ☒ ☐
Madeline Mohrmad (NYISO) ☒ ☐
Laura Popa (NYISO) ☒ ☐
Julia Popova (NRG) ☒ ☐
Benjamin Cohen (NYISO) ☒ ☐
Sushil Silwal (NYISO) ☒ ☐
Dylan Zhang (NYISO) ☒ ☐
Syeda Lubna (NYISO) ☒ ☐
Kathleen O'hare ☒ ☐

1. **Roll Call – N. Leghari**
   - Roll call was conducted.
2. **Introduction and Request for Additional Agenda Items - B. Shanahan**
   - Josh Boles announced that Yvonne Huang has accepted the position of Manager, Resource Adequacy.
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3. **Approval of Minutes for Meeting 260 – B. Shanahan**
   - Concern were raised regarding very less level of details in the meeting minutes #259
   - Brain suggested that only Action items, Capturing key points, Significant recommendations or key objections should be included in the meeting minutes.
4. **Review of Action Items List – B. Shanahan**
   - 220-1 – Tracking of what kind of load reduction TO have
   - 249-17 – Complete

- 254-1 – Discussion in today's meeting
- 255-1 - Discussion in today's meeting
- 257-1 – Scope out early next year
- 259-1 – More discussion needed later this year
- Current White Paper Topics (For 2023 IRM Study) were discussed
    - Load Forecast Uncertainty / Load Shape selections (Phase 2) and Study of 2022 Sensitivity #11 & #12 (GT retirements and AC Transmission Upgrades) were complete
    - Maintaining Operating Reserves and High Renewable Phase 3 were complete
- Model Improvement work in 2022 were discussed
    - Evaluate uniform versus dynamic load forecast uncertainty factors & Duration/Magnitude of Peak load events - How we use them and its effects on IRM - Ongoing

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

- No EC action that impacts ICS

6. ICS Reviews Initial IRM Assumptions Matrix –□ - K. Osse

- Gary sent it day before meeting.
- To be approved on June 29th meeting instead of June 1st.
- Load shapes still using 2006, 2002 and 2007
- Gen model updated, removed deactivation 1265 MW. Internal new gen screening process
- Concern were raised regarding the forecast
- Absent of inertia issue was raised
- Josh - Safest approach is to not include new load shape in base case. Sensitivity be done with new load shape. Decision to make in September.
- Yvonne – using new load shapes might delay the preliminary base case timeline which could delay all the other sensitivities
- Delay the completion of base case time line.
- Rich Bolbrock and Mark Younger were supportive of including the new Load Shapes into the Preliminary Base Case vs in a Sensitivity.
- Everyone else was in agreement with NYISO's recommendation to use the new Load Shapes as a Sensitivity and then adopt the Sensitivity into the Final Base Case if results look reasonable
    - The existing load shape do not have load peaking at the right hour because of behind the meter solar.
- Mr. Leuthauser (HQ rep) supported Mark Younger's idea to include the new Load Shapes in the PBC, vice used as a sensitivity
- Brian Shanahan suggested to discuss both approaches in the EC meeting.

7. ICS Decision - Use of new ELR Model in 2023 MARS Model - □ - Y.Guo High Renewable Phase 3 Study Draft Report □ – K. Osse

7.1. Use of new ELR Model in 2023 MARS Model

- Study background was given
- Sensitivity cases using the GE ELR functionalities with the TC4C configurations were Used

- The IRM reduced by ~1% and lowers the EOP activations by ~15 calls/year.
- The plan for the 2023-2024 IRM is to adopt the enhanced GE ELR functionalities to model the ELR units in the base case.
- Results were discussed and the recommendation were given
- Work with GE to complete the modeling enhancement
- Conduct a special sensitivity case with the ELR units modeled using the pre-determined output profiles
- Josh – they will continue investigating the changes like including west central reverse limit flow. Next couple of months there might be new EOP limit.
- Mark – concerns for underlying issues that are not captured in the base cases
- Brian - ICS will use enhanced GE ELR functionalities to model the ELR units in the base case and brain will follow up to get a better sense for ELR improvement. ICS is confident in TC$C model in the preliminary base cases.

7.2. High Renewable Phase 3 Study Draft Report

- First portion of the Phase 3 study 27,000 MW of hypothetical renewable resources were added to the 2022 IRM FBC with internal NYCA transmission constraints removed.
- Results in Phase 3 study are based on parametric comparisons
- Increasing renewable resources, the ICAP required to maintain the system LOLE at the 0.1 criterion increases
- UCAP for the NYCA also increases with higher renewable resources.
- Discussion regarding the increase in ICAP and UCAP Reserve Margin based on the assumption of 27000 MW renewable capacity
- Concerns were raised against modeling regarding winter peak
- Gary - concern was raised- when 1000 MW was removed, the risk with it is in July/August or all year round
- Mark - FBC should run without the transmission constrain to translate between FBC and Part1. ISO has run that and they will include that column.
- Might be worth to look at winter peaking system.
- Brian – move cautiously forward. Introduce the changes in next couple of year. See the results of peaker retirement.
- Next step inclusion of 6000 MW of battery and including 1600 MW peaker. Including this in the next white paper.

8. Whitepaper/Study Final Results of 2022 Sensitivity #11 & #12 (GT retirements and AC Transmission Upgrades) – R. Carlson

- ICS requested to run TAN 45 cases with AC Transmission in service and Peaker retired
- These assumptions are a projection of future conditions and likely will change between now and the time when actual IRM and LCR values are calculated
- Lowering of the G-J TSL by 10%. IRM reduced by 0.5% in all cases
- Mark - strongly support revised analysis. ignore the previous result with higher TSL
- Additional results were discussed
- NYISO Disclaimer was read out regarding study assumptions.

- Brian – Closing this topic.

9. Load Forecast Uncertainty Model for 2023 IRM – – C. Alonge

- Summer and winter LFU value 7 load levels
- Mark – concern that 2021 showed much less sensitivity to temperature than previous year that might bring down result
- LFU models were developed using summer data from 2018, 2019 and 2021. A single year model with only 2021 data was also developed. Weekends and holidays were excluded.
- Concern was raised about the reversal of trends
- Sensitivity study should be done for how much difference from last year to this year. This could have real world implication for IRM
- how much change in methodology from 2 yrs to 3 yrs
- NYISO response is that NY did not get 80 – 90 percentile weather since 2013
- Mark suggested use more years of data. if this is not capturing year to year change of weather sensitivity then it might not be correct
- ISO This is the best estimate of the correct load response to weather changing
- Summary of Different LFU values were presented
- Using more weather year offers more stability

10. Update on Maintaining Operating Reserves during Load Shedding Events White Paper Study Results Discussion (White Paper) – - Y Huang

- NYISO proposes to maintain a level of operating reserves during load shedding event
- The NYISO recommends maintaining 350 MW of 10-minute OR at the time of load shedding in the 2023-2024 IRM study
- The IRM increased by about 1%~3%
- Mark raised concern that what if big unit going out in that 10 min period
- Calculation is performed on net load basis. Load minus solar and wind
- mark - Is there already a periodic plan to do underlying analysis
- NYISO - refresh the regulation study in next couple of years
- Brian - ICS approves using 350 MW
- NYISO will calculate the exact IRM % number
- Level of detail provided regarding allocation of 350 mw
- NYISO will model this in preliminary base case an run sensitivity without 350 MW
- After this NYISO will review study assumption next steps. Additional analysis schedule in next few years.

Next Meeting

Meeting #261 – June 1, 2022, 10 am – Microsoft Teams