

**Draft Minutes**

**New York State Reliability Council - Installed Capacity Subcommittee (ICS)  
Meeting #259 – March 29, 2022  
Microsoft Teams**

**Attendees** **Present**   **Phone**

**Members / Alternates:**

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

**Advisers/Non-member Participants:**

Alan Ackerman (CES).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
John Adams (ICS Consultant) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Leen Almadani (CHG&E) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Charles Alonge (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Josh Boles (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Andrea Calo (CES) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ryan Carlson (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Jie Chen (Potomac) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Grant Flagler (Con Ed Energy) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Jonathan Forward (DPS) .....	<input type="checkbox"/>	<input type="checkbox"/>
Kenneth Galarneau (Rise Light & Power) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ricardo Galarza (PSM Consulting) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nate Gilbraith (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Ying Guo (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Karl Hofer (Con Edison).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Erin Hogan (UIU) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alexis Hormovitis (NYISO) .....	<input type="checkbox"/>	<input type="checkbox"/>
Yvonne Huang (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gary Jordon (ICS Consultant) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scott Leuthauser (HQUS) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Matthew Napoli (Con Ed Energy) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scott Nevins (DPS) .....	<input type="checkbox"/>	<input type="checkbox"/>
Otito Onwuzurike (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ben O'Rourke (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kevin Osse (NYISO).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Carl Patka (NYISO).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Laura Popa (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Julia Popova (NRG).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Richard Quimby (DPS).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Max Schuler (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sushil Silwal (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Benjamin Cohen (NYISO) .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Syeda Lubna (NYISO).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**1. Roll Call – N. Leghari**

- Roll call was conducted.

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

- No additional agenda items

**3. Approval of Minutes for Meeting #258 – B. Shanahan**

- Meeting #258 -- B. Shanahan - approved

- NYISO In-person Meeting Requirements – B. Shanahan
- 4. Review of Action Items List – B. Shanahan**
- 220-1 Review to keep this agenda item in next EC meeting to get closure
  - 254-1 ICS is ready to make decision in May regarding GE enhanced modeling. Whether or not to adapt.
  - 255-1 Continue enhancement to the model. GE is working on outage model
  - 257-1 Due date changed to later 2022 or early 2023. Develop scope for phase 4
- 5. Chair update on recent EC actions - B. Shanahan**
- EC Approved milestone schedule
  - Next year milestone schedule
  - Solicitation of public appeals
- 6. ICS Reviews Initial IRM Assumptions Matrix – K. Osse**
- Reviewed assumption Matrix same as last month
  - Expected dates for assumption
- 7. High Renewables Phase 3 Draft White Paper Study Scope for Approval – K. Osse**
- Changes:
    - Storage from 3 GW to 6 GW.
    - Duration of energy storage
    - Table for Installed Capacity (ICAP)
    - ESR capacity will be modeled with a 4-hour duration
    - Table for ICAP retiring because 2 of the units are not included in the final base case.
  - ICS approved the scope
  - Continue to refer it to high renewable.
- 8. Whitepaper/Study Update of 2022 Sensitivity #11 & #12 (GT retirements and AC Transmission Upgrades) – R. Carlson**
- Update provided on Tan 45 cases with AC Transmission in service and DEC NOx Rule Peakers retirement in the IRM study
    - 2023 Topology changes for ConEd series reactors and peaker retirements
    - 2024 Inclusion of AC transmission topology update
    - 2025 second round of peaker retirements.
  - Assumptions
    - 2022 IRM final base case. Neptune was derated to 60% of capacity to start and was available to full capacity for LCR report
    - Values will be subject to change
    - Re evaluating these cases.
  - Suggestion was made to run the alternative LCR case or calculate TAN 45 cases to Neptune line at 100% capacity. NYISO will provide some sort of analysis
  - Disclaimer
    - The IRM and LCR values that result from this analysis are based on a set of assumptions that may and likely will not represent future conditions when actual IRM and LCRs are calculated for future market years

- These results are provided for study purposes only, and the NYISO disclaims their use for purposes of making any financial or procurement decisions associated with the NYISO's installed capacity markets
- Results was presented. IRM has not changed much in all cases
- Next steps
  - Begin the Parametric Study for 2023 IRM
  - Run Tan 45 analysis and develop Preliminary Base Case

## **9. Maintaining Operating Reserves during Load Shedding Events White Paper Study Results Discussion (White Paper) – Y Huang**

- Background
  - NYISO is evaluating whether to maintain operating reserves (“OR”) during load shedding events for 2023 IRM Study
  - Discussed already in previous ICS meetings results were provided for 3 different MW level of maintaining OP reserve.
- Recap of the modeling Methodology was discussed
- Tan 45 results were discussed
- It was observed that Tan45 results are generally consistent with the parametric results
- Concerns were made that if IRM study assumptions are correct. Should Neptune at full capacity to be included in Tan45. Get input from Operations on how much reserve they need to retain for average outage factors.
- Next steps: NYISO will recommend MW level of maintaining operating reserve for load shedding
- Sensitivity cases should be run
- Best way to approach 2023 IRM is to discuss with EC
- Gary and Brian will look at Policy 5 before next meeting
- Next studies should have all changes, no changes, and incremental changes
- Make EC aware of the work plan
- NYISO will bring recommendation to the next meeting
- No need to run optimized LCR

## **10. LFU Whitepaper Updated Load Shape Presentation – M. Schuler**

- Load shape recommendation for use in resource planning/adequacy study LFU phase 2
- Look at the impact of changing load shape. Growing – BTM Solar Impacts.
- Load duration curve behavior with gross load prospective. Presented in July 2021. Impact relatively small
- Impact of BTM Solar on LFU Multipliers
- Load duration curve analysis looked at 2012 to 2020. 2013, 2017, 2018 have been selected for use in reliability studies.
- Timing of the peak is absolutely critical. So should Actual or adjusted load shape should be used in studies. NYISO is of the view to use adjusted load shapes.
- How do we measure the impact of extended cloudy days. Can do that if we load that have behind the solar already build in.
- Both actual and adjusted load shape have benefits. White paper and more detail study needed.
  - Why we need to do this

- Methodology of separating behind the meter solar as model as a resource and data choices for behind the meter solar.
- Caution about how we adopt model changes
- Preliminary base case conduct the study with old load shape. And conduct a sensitivity using new load shape.
- Load shape recommendation are given assigning into BIN's
- Phase 3 will be discussed in June meeting
- Make a recommendation to un the sensitivity with the existing load shape discuss this with Executive Committee
- The NYISO will present and solicit potential LFU Phase 3 study topics at LFTF and NYSRC ICS in Q2 of this year

#### **11. Additional Agenda Items**

- In person meeting at NYISO – RSVP couple of days before meeting.

#### **Next Meeting**

**Meeting #260 – Wednesday, May 4, 2022, 10 am – Microsoft Teams**