

## Final Minutes

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

**Meeting #305– July 10th, 2025**

**Microsoft Teams and NYISO KCC**

**Attendees** **Present**   **Phone**

**Members / Alternates:**

|   |                                     |                                     |
|---|-------------------------------------|-------------------------------------|
| William Gunther ( <b>Con Edison – ICS Chair</b> ) ..... | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Brian Shanahan (National Grid) .....                    | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Rich Bolbrock (Unaffiliated) .....                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Clay Burns (National Grid) .....                        | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Ruby Chan (CHG&E).....                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Richard Wright (CHG&E).....                             | <input type="checkbox"/>            | <input 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"/> |
| Jin Hao (NYSEG/RG&E) .....                              | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Jim Kane (NYPA) .....                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Anthony Abate (NYPA) .....                              | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Mike Mager (MI) .....                                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Chris Wentlent (MEUA) .....                             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Hilme Athar (PSEG LI) .....                             | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Thomas Primrose (PSEG LI) .....                         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Mike DeSocio (Luminary).....                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**Advisers/Non-member Participants:**

|                                    |                                     |                                     |
|------------------------------------|-------------------------------------|-------------------------------------|
| Gary Jordan (ICS Consultant) ..... | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| John Adams (ICS Consultant).....   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Henry Fox (NYISO) .....            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Dylan Zhang (NYISO).....           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Laura Popa (NYISO) .....           | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Max Schuler (NYISO) .....          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Yvonne Huang (NYISO) .....         | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Bianca Prinsloo (NYISO) .....      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Lucas Carr (NYISO) .....           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

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|--------------------------------------|-------------------------------------|-------------------------------------|
| Sanket Milind Ulagadde (NYISO) ..... | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Ryan Carlson (NYISO) .....           | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Heidi Nielsen (NYISO) .....          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Brendan Long (NYISO) .....           | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Carter Hempstead (NYISO) .....       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Garrett Bissell (NYISO) .....        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Kathleen O'Hare (NYISO) .....        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Josif Figueroa (NYISO) .....         | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Pramila Nirbhavane (NYISO) .....     | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Ethan Avallone (NYISO) .....         | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Keegan Guinn (NYISO) .....           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Pallavi Jain(NYISO) .....            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Oyin Agunbiade (NYISO) .....         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Andrew Gregory (NYISO) .....         | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Arjun Malhotra (NYISO) .....         | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Claudia Bustamente (NYISO) .....     | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Leila Nayar (NYISO) .....            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Sushant Varghese(NYISO) .....        | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Diego Meucci (NYISO) .....           | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Benjamin O'Rourke (NYISO) .....      | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Jack Garrett (NYISO) .....           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Afreen Vahora (NYISO) .....          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Syeda Lubna (NYISO) .....            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Akin Aroge (NYISO) .....             | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Manish Sainani (NYISO) .....         | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Zach T. Smith (NYISO) .....          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Helena Frudit (NYISO) .....          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Chris Hamilton (NYISO) .....         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Aaron Markham (NYISO) .....          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Mikaela Lucas (GE) .....             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Matt Elkins (GE) .....               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Adam Evans (DPS) .....               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Richard Quimby (DPS) .....           | <input type="checkbox"/>            | <input type="checkbox"/>            |

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| Randy Monica Jr. (DPS) .....               | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Wes Yeomans (RRS/RCMS) .....               | <input type="checkbox"/> | <input type="checkbox"/>            |
| Kristine Agati (Avangrid) .....            | <input type="checkbox"/> | <input type="checkbox"/>            |
| Leen Almadani (CHG&E) .....                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Patrick Danner (NYPA) .....                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Andrea Calo (CES) .....                    | <input type="checkbox"/> | <input type="checkbox"/>            |
| Joe Coscia (Potomac Economics) .....       | <input type="checkbox"/> | <input type="checkbox"/>            |
| Mike Cadwalader (Atlantic Economics) ..... | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Grant Flagler (Con Ed Energy) .....        | <input type="checkbox"/> | <input type="checkbox"/>            |
| Karl Hofer (Con Edison) .....              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Mariann Wilczek (PSEGLI) .....             | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Lucy Khazanovich (PSEGLI) .....            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| David Mirabella (PSEGLI) .....             | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Manny Panaligan (PSEGLI) .....             | <input type="checkbox"/> | <input type="checkbox"/>            |
| Mark Magliola (PSEGLI) .....               | <input type="checkbox"/> | <input type="checkbox"/>            |
| Tim Lundin (LS Power) .....                | <input type="checkbox"/> | <input type="checkbox"/>            |
| Julia Popova (NRG) .....                   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Ricardo Galarza (PSM) .....                | <input type="checkbox"/> | <input type="checkbox"/>            |
| Richard Bratton (IPP NY) .....             | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Khatune Zannat (NPCC) .....                | <input type="checkbox"/> | <input type="checkbox"/>            |
| Herb Schrayshuen (NYSRC) .....             | <input type="checkbox"/> | <input type="checkbox"/>            |
| Vincent Gabrielle (RTO Insider) .....      | <input type="checkbox"/> | <input type="checkbox"/>            |
| Rick Gonzales .....                        | <input type="checkbox"/> | <input type="checkbox"/>            |
| Caroline Decker .....                      | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Elynor Reyes .....                         | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Michael Swider .....                       | <input type="checkbox"/> | <input type="checkbox"/>            |
| Benjamin Cohen .....                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Mackenzie Poulton .....                    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Haizhen Wang .....                         | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Jared Anderson .....                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Mark Gaines .....                          | <input type="checkbox"/> | <input type="checkbox"/>            |
| Kenneth Galarneau .....                    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| John Norris .....                          | <input type="checkbox"/> | <input type="checkbox"/>            |

|                        |                          |                                     |
|------------------------|--------------------------|-------------------------------------|
| Leon Almadani .....    | <input type="checkbox"/> | <input type="checkbox"/>            |
| Yannick Vennes.....    | <input type="checkbox"/> | <input type="checkbox"/>            |
| Stephen Conant .....   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Nilkesh Gowalani ..... | <input type="checkbox"/> | <input type="checkbox"/>            |
| Matthew Schwall .....  | <input type="checkbox"/> | <input type="checkbox"/>            |
| Stephanie Palmer ..... | <input type="checkbox"/> | <input type="checkbox"/>            |
| James Pigeon .....     | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| John Haff .....        | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Matthew Napoli.....    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Ray Stalter.....       | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**1&2 Roll Call and Request for Additional Agenda Items – W. Gunther / T. Primrose**

No additional agenda items identified.

**3. Approval of Previous Meeting Minutes – T. Primrose**

Meeting minutes for previous meeting #304 were approved with no comments.

**4. Review of Action Item List – W. Gunther**

No material changes since last meeting.

**5. Chair update on recent EC actions – W. Gunther**

W. Gunther provided an update on the EC covering the following:

- Substantial discussion on CHPE modeling but no changes from the EC pending further information.
- Policy 5 updates approved by EC.

**6. Draft 2026 ICS Meeting Schedule – W. Gunther**

W. Gunther presented the draft NYSRC 2026 meetings schedule and discussed the 4 meetings below that were suggested to be moved on the draft schedule due to conflicts. Also noted that for meetings that were moved up, posting deadlines will be moved up accordingly.

- April 29, 2026 → April 28
- August 26, 2026 → August 25
- September 30, 2026 → September 29
- November 18, 2026 → November 17

ICS approved draft schedule with four aforementioned updates.

**7. Champlain Hudson Power Express (CHPE): Installed Capacity Market Integration Considerations– M. Sainani**

M. Sainani (NYISO Capacity and New Resource Integration Market Design) provided a presentation on CHPE ICAP Market considerations covering the following:

- Project overview of CHPE and background on downstream ICAP market parameter considerations (TSL floors, LCRs, import rights, CAFs, seasonal parameters).
  - Preliminary assessment identified a potential increase of ~4% to the previously 2025-2026 TSL floor value for Load Zone J.
- Implications of misalignment between assumptions imbedded in the ICAP market parameters and actual ICAP market participation of CHPE UDRs.
- Introduced concept of “triggering resource”, whereby a resource whose entry would change the contingencies evaluated in determining TSL floors.
  - If a “triggering resource” exists a single IRM, as determined by the NYSRC, will apply for the entire Capability Year.
  - Dual set of NYISO-determined ICAP market parameters (e.g., TSL floor values, LCRs, CAFs, and demand curves) will be evaluated with/without the triggering resource.
  - Differing sets of ICAP market parameters would only be used if a triggering resource will not begin ICAP market participation for the May delivery month.
- NYISO does not propose to change the status assumptions of any other resource as approved by the NYSRC and reflected in the IRM study results case.
- Detailed example of 3 scenarios for CHPE as “triggering resource” in 2026-2027.

G. Jordan asked for clarification if NYC barges assumptions would change in MARS cases used for ICAP market runs based on status of CHPE. NYISO clarified that NYC barge status would not change.

W. Gunther asked if the LCR optimizer will converge without CHPE and the barges. NYISO explained that they believe it will solve and it will respect the relevant TSL floor. T Primrose followed up and asked about the mechanics of the optimizer if the TSL floor exceeds available capacity. The NYISO explained that the optimizer will add back capacity with shifting until the area is at the TSL floor.

M. Cadwalader pointed out that the NYISO proposal does not address inconsistencies that arise if CHPE materializes in service, if it was assumed out of service in the IRM case. M. DeSocio agreed that it is a concern. NYISO commented that they are actively evaluating that alternative scenario.

C. Wentlent asked about timing of tariff revisions to accompany this proposal. NYISO commented that tariff revisions are required and they are targeting BIC presentation in August, and filing in late-summer/early-fall.

## **8. Major Emergency Report June 24, 2025 – A. Markham**

NYISO operations provided a presentation on the June 24<sup>th</sup> Major Emergency event covering the following:

- On 6/24/25 a Major Emergency was declared by the NYISO Shift Manager due to Operating Reserve deficiency (less than one and one-half times the most severe contingency)
  - Precipitated by near 90/10 summer conditions, curtailment of ~2GW scheduled flows from neighboring balancing areas, and ~1000MW of NY resource derates
  - No load relief required
- Corrective actions including generation dispatch to optimize 30-min reserves, curtailment of non-firm sales, up to 1960MW of emergency energy purchases, and counting of Voltage Reduction relief as reserve
- Detailed chronology of event and remedial actions

NYISO operations commented that there was likely no extra support available from neighboring regions unless NYCA margins deteriorated significantly and depleted 10-minute reserves or went into load shedding.

T. Primrose asked if curtailment of resources with UDR elections would be considered by the NYISO. NYISO replied that it is too preliminary for inclusion in this year's model but it will be evaluated.

C. Wentlent asked about performance by fuel type over the heat wave. NYISO answered that wind and solar performed slightly better on 6/24 than assumed in the summer capacity assessment, but worse on 6/25. Also asked about overall performance of the existing fleet. NYISO operations commented that unit unavailability was relatively in line with summer capacity assessment for 90/10 conditions.

M. Mager asked about demand response performance during the event. NYISO commented that initial estimates implied roughly 1000MW of response which improved operating margins.

W. Gunther asked if NYISO operations would recommend any changes to EA assumptions in IRM model based on this experience. NYISO operations commented that it is one data point, so it is worth looking into but they aren't recommending any changes at this time.

## **9. ELR Modeling Whitepaper-SCR Start Times – B. Prinsloo**

B. Prinsloo provided an update on the ELR whitepaper covering the following:

- Background on ELR (including SCR) modeling in current IRM model
- Background on circular dependency of ELRs input (start time) informed by an output (LOLE) that is itself impacted by that same input.
  - Generation output limitation window for small ELRs, energy storage resources (ESRs), and SCRs is based on the hourly loss of load expectation (LOLE) from the previous year's IRM study
- Overview of operations process to activate SCRs-operations typically seeks to center the event period around the expected net load peak hour
- Summer/Winter net peak load analysis determined that winter peak hours are similar to the summer peak hours
- The NYISO recommends consideration of the two potential methodologies for determining an appropriate start time for SCRs in the IRM model:
  - Method 1: NYCA peak load hour
  - Method 2: Grouped by Upstate (A-F) and Downstate (G-K)
- Next steps: continue discussion at 8/6 ICS, present analysis of different SCR start time configurations, finalize start time recommendation for 2026-27 IRM FBC

NYISO asked stakeholders which method ICS would like to see first. W. Gunther and M. Mager expressed interest in seeing method 2 first but that seeing both is preferable. M. Cadwalader and M. DeSocio asked which methodology aligns with operations. NYISO answered that operations will differentiate between upstate and downstate (i.e. aligning with method 2).

W. Gunther asked why the IRM model doesn't allow MARS to optimize ELR/SCR dispatch. G. Jordan answered that MARS does not have "look ahead" functionality. T. Primrose cautioned that even if this functionality existed, it may not be ideal due to perfect foresight in model allowing for optimization beyond what operations can realistically achieve.

## **10. CHPE and Fuel Constraints Modeling-Preliminary Results – D. Zhang**

D. Zhang provided an update on CHPE and Fuel Constraints Modeling covering the following:

- Background on approved fuel availability constraints modeling assumptions for the 2026-2027 IRM study
- Background regarding CHPE modeling assumptions and state of ongoing discussion at ICS

- Consistent with the preference expressed by ICS, the 2026-2027 IRM PBC should represent CHPE as in-service and the Gowanus 1 & 2 and Narrows 2 & 3 generators as out-of-service.
  - Tan45 sensitivity to be conducted with CHPE out-of-service and the Gowanus 2 & 3 and Narrows 1 & 2 barges in-service
- Preliminary results indicate fuel constraints in isolation shift ~5% of LOLE risk to winter
  - Combination of fuel constraints + CHPE shift ~15% of LOLE risk to winter
  - Tan45 results to be provided at 8/6 ICS

NYISO commented that results of CHPE and fuel constraints will not be available before August 1<sup>st</sup> generator firm/non-firm elections deadline.

C. Wentlent asked what months winter risk is confined to. NYISO responded preliminarily that it is largely in January/February. C. Wentlent asked the NYISO to follow up on any possible pivotal supplier rules for HQ in relation to Zone J.

#### **11. Extreme Weather Resource Adequacy – BTM Solar Update – J. Garrett**

J. Garrett provided an update on Extreme Weather RA modeling incorporating BTM solar into previous analysis:

- Addition of 5,980MW of BTM solar capacity historical production data shows a similar trend to what was seen previously in the low output counts analysis
- Incorporation of the BTM solar data does not materially change the results of the previous work

G. Jordan asked if LOLE results would be presented to accompany these results. NYISO commented that MARS test cases were not run to accompany this update, and cautioned against a results oriented metric.

#### **12. GE MARS New Version Evolutions – M. Elkins (GE Vernova)**

M. Elkins provided a presentation on GE MARS version evolution from V4.14 to V5.7 covering the following:

- 14 total enhancements/additions and 24 bug fixes

W. Gunther asked if any improvements have been made that the NYISO is not currently using. GE responded that the goal of all improvements is to be helpful and hybrid resources are a big area of improvement.

T. Primrose asked for further details on bug for ES units with cycle efficiency less than 1. GE stated that they would follow up, but that if it was a large issue it would have been obvious in the results. He also asked if there are any significant unresolved bugs in the current release, GE clarified that there aren't any.

W. Gunther asked if there have been any changes due to the increasing number of replications required for SE criteria in recent IRM cases. GE clarified that they are working on runtime as a focus. G. Jordan noted that if the MARS cases converge in less replications than required, policy 5 has no provision to reduce the number of replications. W. Gunther expressed that it is likely too late for additional Policy 5 edits in this cycle, but will bring the topic to the EC.

#### **13. 2026-2027 IRM PBC Proposed Sensitivity Cases – L. Carr**

L. Carr presented a list of proposed sensitivity cases for the 2026-2027 IRM PBC. Standard annual sensitivities include NYCA Isolated, no internal NYCA transmission constraints, no LFU, No wind capacity (all wind), and no SCR capacity. Base case assumptions change sensitivities include no Winter Fuel Availability Constraints (Tan45), and CHPE + Barges Alternative Assumptions (Tan45).

G. Jordan commented that number of replications required should be investigated for sensitivity cases and parametric cases. NYISO will follow up and consider conducting sensitivities and base case model updates at lower replications that can meet the standard error requirement.

#### **14. IRM 2026-2027 PBC Parametric Results– H. Fox**

H. Fox presented an update for the IRM 2026-2027 PBC Parametric Results covering the following:

- Material Changes: New generator screening, 2025 BTM solar shapes, 2026 solar adjusted load shapes, MARS Version 5.7.3765 update
- Parametric result currently stands at 24.87% IRM, 77.53% NYC, 88.27% LHV, 109.88% LI

Major updates to come are CHPE inclusion, Gowanus & Narrows Deactivations, Winter Fuel Availability Constraints, LFU, and Externals + Policy 5 adjustments.

#### **15. IRM 2026-2027 PBC Assumptions Matrix (Approval Item)- H. Fox**

H. Fox presented an update for the IRM 2026-2027 PBC assumptions matrix covering new generator screening, NYCA Load and LFU model, import and export transactions, internal and external topology, EA assumptions, deactivations and removals, CHPE, fuel constraints, EDRs, SCRs, EOPs/EOP structure, external control areas, MARS model update, and 5-year EFORDs for resources.

- PBC will reflect CHPE as in service and Gowanus/Narrows GTs out of service. Assumption subject change/update for FBC including adjustments for any actual UDR awards by NYISO.

D. Zhang noted that fuel availability constraints (attachment G7) was updated from what was originally approved by the EC to account for generation fleet changes, as discussed at the April EC meeting.

ICS approved PBC assumptions matrix as presented.

#### **16. Additional Agenda Items**

No additional agenda items identified.

#### **Next Meeting**

**Meeting #306 –Wednesday, August 6<sup>th</sup>, 2025, 10 am – NYISO KCC & MS Teams**