New York State Reliability Council – Extreme Weather Working Group (EWWG)
Meeting # 23 Minutes – May 30, 2025
Zoom

1. **Draft Meeting Minutes for Meeting #22 (3/28/2025) – Hilme Athar**
   - Approved

2. **NERC Cold Weather Data Request Reporting– Hilme Athar**
   - Hilme Athar provided an FYI update on NERC's Cold Weather Generator Data Request. FERC issued an order February 2024 directing NERC to develop a plan to collect data on the winterization of generating units and submit an annual analysis of the data.
   - NERC is collecting the following data from generation units across North America:
     i. Extreme minimum temperature at each location
     ii. Minimum and maximum ambient operating temperatures
     iii. Winter net capacity
     iv. Unit operability at extreme temperatures
     v. History of cold weather reliability events
     vi. Corrective Action Plans (CAPs), including development and implementation date.
   - NERC will evaluate ongoing risk and CAP effectiveness. Final report is expected by October 1, 2025.
   - Jay Goodman requested the docket number for the FERC directive; Hilme identified it is in support of EOP-012-1.
   - Separate from this directive, Hilme also noted NERC is hosting a public dataset of extreme benchmark temperature events in ISO and RTO regions under TPL-008 which may be useful for future studies.

3. **Renewable Lulls: Issue Discovery Report Update– Thomas Primrose**
   - Thomas Primrose provided an update on data statistics prepared for Renewable Lulls Issue Discovery Report.
   - Annual capacity factors were calculated for each of the DNV simulated Renewable profiles for each year 2000-2022.
     i. Maximum, Average, Minimum, and Spread of the 22 year set is identified.
     ii. One item of note to help understand the amount of variability, was looking at Zone K Offshore Wind August capacity factor ranged from 37% to 17% in the 20 year data set.
   - Thomas also put together a history of UCAP translation factors for the DNV profiles.
   - For the analysis UCAP translation factor is considered to be the LOLE-weighted capacity factor during the June-August timeframe.
   - This was developed using the most recently presented LOLE distributions from ICS.
   - Thomas also fulfilled Mark Younger's request from EWWG meeting #22 of analyzing the statistics comparing 5-year periods and 10-year periods.
   - 10-year period tightens the spread of the UCAP translation factors. This is of note for possible impact on IRM setting process.

4. **NYISO Resource Adequacy Intermittent Renewable Modeling – Jack Garrett**
   - Jack Garrett of NYISO's Resource Adequacy group presented NYISO's most recent analyses to incorporate extreme weather impacts on renewable resources into MARS modeling.
   - Statistical analysis examined historical and DNV-simulated data to identify extreme weather years using low output count. Low renewable output hours defined as <10% capacity factor.

Z-scores used to assess how individual weather years deviate from the average number of low output hours of all years.

- Key findings:
    i. 2021 identified as most extreme (high number of low output hours)
    ii. 2018 also showed elevated low output counts
    iii. Trends from simulated and production data aligned reasonably well
- Jack emphasized the weather year shape must remain consistent across all intermittent resources when a profile is chosen, in order capture correlated effects across resources.
- Modeling impact tests:
    i. Compared 5-year base case (2019–2023) to 10-year case (2014–2023) using DNV data
    ii. IRM increased from 24.4% to 24.57% in the 10-year test
    iii. LOLE impacts tied heavily to renewable performance during top 10 peak load hours
    iv. 2016 and 2022 decreased LOLE; 2014 and 2017 increased LOLE.
- LOLE impact of a weather year's shape can vary year to year in MARS as peak load window shifts.
- Hilme asked whether NYISO would consider selecting representative years (good/bad) vs. using probabilistic full-period sampling. Jack said NYISO is still evaluating options and will seek feedback from ICS before making recommendation.
- Roger Clayton raised concerns about solar capacity factor assumptions in RNA vs. MARS; Jack noted behind-the-meter solar wasn't included in this analysis and advised following up with Keith Burrell.
- Roger Caiazza asked if NYISO is analyzing worst-case historical years (e.g., 1961) for dispatchable emissions-free resource planning. Jack confirmed such analysis is underway.
- Thomas raised potential zonal-level implications, suggesting low output count may be more critical for localities with heavy offshore wind deployment (e.g., Zones J/K). Jack and Dylan acknowledged the importance of considering zonal characteristics, especially as the resource mix changes.

5. Other Business

- No new items were raised.
- Thomas Primrose noted that VOWELS dashboard is back online.