

New York State Reliability Council – Extreme Weather Working Group (EWWG)
Meeting # 17 – July 26, 2024
Zoom

1. Draft Meeting Minutes for Meeting # 16 (06/28/2024) – John Dellatto

- Minutes were approved with little to no changes.
- Roger Clayton provided a quick update on VOWELS program.

2. DNV Shape Data / SRO Appendix E – Open Discussion

- John Dellatto provided an update on the work being done by Tom Primrose analyzing Wind Lull variability utilizing DNV Data. The first item taken on by Tom, is identifying the max hours with the redefinition of a lull. Preliminarily, he found that the average lull and maximum lull were both higher when using the definition of 10% rolling average capacity factor.
- John Dellatto asked Roger Clayton if he has worked on any new analysis or digging into of the DNV Shape Data.
- Roger Clayton responded that he has not done any analysis on the raw data yet. But was concerned if excel will be able to handle the raw data. As Jason Frasier and team utilized MATLAB. Jason Frasier however in conversation did not rule out the use of Excel. Jason also offered in conversation that it may be possible for their team to do a bit more analysis before 2025. However it will depend on the request.
- While discussing SRO Appendix E, Roger Clayton mentioned that when looking at Figure E-8, within the 13-24 hour tranche, there is an average of 10 combined lulls (all renewables), less than 10% Net Capacity Factor. Longest of which was 19 hours long. If we're looking at how to model renewables from the perspective of firm power, this is a good indicator.
- John Dellatto provided a preliminary result from Tom Primrose's analysis that when moving to a rolling average, the Average Lull approximately doubles. Average lull increased to about 110 hours when using a 10% rolling average (double the number in Figure E-7). And preliminarily the peak was about 9-1/2 days of below 10% rolling average capacity factor. Tom will add clarifying note about the definition of rolling average utilized for the analysis.

3. NERC TPL-008-1 – Open Discussion

- John Dellatto provided an overview of the NERC TPL-008-1 presentation given by the NERC on July 19th. The new standard calls for the development of a library of 43-year historical extreme heat and extreme cold temperature events for each NERC region. Important to note this standard focused on temperature. TO's will use this database when standard is put into practice. The standard will essentially add four additional Transmission planning cases: extreme cold, extreme heat, and a sensitivity case for each.
- Roger Clayton commented that NY is addressing this standard with the 154 Rule A, which looks at the system condition winter peak.

- John Dellatto explained that we will follow how NERC TPL-008-1 continues to develop in the case that it requires new NYSRC rules, however in its current form the TPL standard is covered by existing NYSRC rules.

4. Potential Reliability Rule – 153: System Conditions for Transmission System Planning Performance Requirements Covering Wind and / or Solar Generating Resource Lulls – Roger Clayton & Keith Burrell

- Roger Clayton explained that there was nothing to report regarding PRR 153. However he mentioned the NYSRC new rule regarding winter peak, and assumptions regarding system conditions or availability of generation. At ESPWG presented that this rule was applied in the current RNA and it resulted in 6,400 MW of non-firm production being taken offline in the analysis of the winter peak condition
- Laura Popa explained that for planning applications we use a rule that identifies Non-firm Gas-only plants across NYCA to be de-rated, triggered at a winter baseline threshold. Only when the winter demand baseline is higher than a threshold value. NYCA wide threshold value. Only applies for non-firm gas only generation, and a smaller amount of dual duct burn. This is the first time this new rule was applied it to the base case. And indeed a LOLE violation was identified for 2034 within the preliminary results of the RNA. By August 8, they will learn from stakeholders if there is a status update that may help alleviate preliminary violations found. However those status updates need to meet the inclusion rules, and as such will be projects further along in their development process.
- Roger Clayton asked where the 6,400 MW derate is primarily located.
- Laura Popa referred to the April 30th ESPWG which described that roughly 5,600 MW of the 6,400 MW derate is located in Zones F-K. And that the 2034 LOLE violation was 0.283 LOLE
- Mark Younger mentioned that the fuel limitation for the preliminary RNA, at barely above peak was more aggressive in terms of limitation compared to what was modelled in the ICS. But at even higher loads it was less restrictive than the ICS model. And so asked Laura if they are look into this further for comparison purposes.
- Laura Popa responded that they will be looking into what scenarios that can possibly bring some insight. Such as what would happen if gas-only plants decided to become firm, what would that do to the results? Especially since these resources would help reduce new buildout requirements. Mark Younger mentioned that things will be clearer when the NYISO starts going through the process of fuel limitation modelling and qualification. Overall this will continue to be monitored and new information will be presented when possible.

5. Other Business

- Roger Caiazza reached out about potentially commenting on a PSC Case. Imploring the EC that an extensive analysis, similar to the one done by the DNV analysis is needed but increasing the region scope. As wind and solar lulls will effect energy imports significantly, and as such reliability planning must take this into

consideration when making assumptions about emergency assistance availability. Roger Caiazza suggested that he can draft the technical portion of this for the EC's use in putting together comments.

- Dan Kirk-Davidoff raised that it may not make sense to have too extensive of a scope, such as modelling the entire North American Continent.
- Mark Younger commented that ultimately NYSRC will decide whether they file comments. But felt it would be appropriate to let the EC know that the potential for wind lulls over large areas, based on the analysis we've done so far, is quite significant. And that needs to be evaluated fully before reaching a conclusion that we can rely on our neighbors.
- Dan Kirk-Davidoff mentioned there are several of pre-existing studies that show what a full US grid looks like under very high renewable penetration scenarios, which can be leaned on for information.
- Roger Clayton agreed that a continental level analysis may not be necessary. But perhaps looking at just the Eastern Interconnect or a smaller section that just includes PJM, and ISONE.
- Mark Younger mentioned that under NYISO rules import of intermittent capacity is not allowed. This is due to the NYISO not having sufficient control or knowledge of the generation level from these resources. So neither intermittent or battery resources can be outside the NYISO and be considered as capacity for the NYISO.
- John Dellatto and Roger Clayton with approval from the EWWG will bring up concerns raised by Roger Caiazza at their next meeting with the NYSRC EC asking them to make some comments when the appropriate time comes.