

Attachment #4.1.4
Return to Agenda

Discussion on Off-shore Wind in Neighboring Systems

Gary Jordan

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Background

- Analysis performed by the Extreme Weather Working Group shows that there is correlation of wind lull events between off-shore wind plants in NE, NY and PJM.
 - Subsequently, the question of how the offshore wind correlated outages would impact the IRM was raised
- At the 8/2 ICS meeting, a potential sensitivity case with modeling the Vineyard OSW plant using the offshore wind profiles from the NYISO was discussed
 - I agreed to examine the ISONE data provided by NPCC to determine what needed to be done to change representation of their Vineyard OSW plant to reflect the potential impact of the correlated outages with NY OSW plant.

Results of Analysis

- After closely examining the 2024-2025 PBC data I found that the Vineyard OSW unit was not present in any form. This was independently verified by NYISO as a TO.
 - Although the owners predict to have a few turbines operational by the end of 2023 the full plant is not expected to be on-line until the end of 2024.
 - Review of ISONE website only shows the units receiving capacity obligation starting 2023
- Therefore, a sensitivity of modeling Vineyard OSW in this year's base case would simply mean adding a new unit in the ISONE system, without indicating potential impact due to OSW correlated outages.

Recommendations

- Since the unit does not appear to be part of ISONE data in the base case, I am recommending that NO sensitivity case be run for neighboring off-shore wind in the 2024-2025 IRM analysis.
 - In-depth verification of the external data, such as new generator inclusion rules, is also not expected in future studies.
- Continuing discussions are needed to insure proper hourly profiles for neighboring renewable generation for next year's analysis, in particular for off-shore wind plants.
- Consider prioritizing the research to represent correlated outages with neighboring system as part of the RA Modeling Improvement 5-year strategic plan

Having said all of that ...

- A quick run is conducted by adding 800 MW of OSW in ISONE on this year’s PBC; adjustments were applied and the impact was zero.
- However, the results from this quick run is not an indication of potential impact from correlated outages.
 - It is a demonstration that adding capacity will benefit the overall system, and depending on the size of the capacity addition, Policy 5 adjustment would dampen the impact to the IRM
- Therefore, this should be considered a “side case” and will not be included in the rest of the analysis.

Results	STARTING Case	First Set: No Additional Policy 5 Adjustment		Second Set: With Additional Policy 5 Adjustment	
	2024 PBC	2024 PBC + 800 MW Vineyard	2024 PBC + 800 MW Vineyard @ 0.1	2024 PBC + 800 MW Vineyard + ISONE Policy 5 Adj of 275MW	2024 PBC + 800 MW Vineyard + ISONE Policy 5 Adj of 275 MW @ 0.1
IRM	20.80%	20.80%	20.69%	20.80%	20.80%
LOLE					
NYBA	0.1003	0.09763	0.09992	0.10007	0.10007
ISONE	0.10413	0.09225	0.09345	0.1035	0.1035