

Neptune Outage Extension Special Sensitivity Case

Yvonne Huang

ICS

December 3, 2021

Background

- Since September 2, 2020, an outage on a transformer named “NEWBRDGE_345_138_BK_1” has affected the transfer capability of the Neptune cable. Throughout the 2022 IRM study, the outage was expected to end on April 8, 2022.
- The NYSRC and NYISO have proactively evaluated the impact of an extended outage on this transformer. A sensitivity study on the Preliminary Base Case has shown a material impact on the IRM, if the outage is extended
 - The sensitivity was a parametric study, and did not go through the Tan45 process
- On November 16, 2021, the transformer outage was extended until July 15, 2022¹
- The NYISO provided notice of this outage extension to the NYSRC pursuant to Section 5.3 of the NYSRC Policy 5
- On November 30, 2021, the transformer outage was further extended to August 1, 2022²
- A special sensitivity with Tan45 analysis has been conducted on the 2022 IRM Final Base Case with the extension of the transformer outage on the Neptune cable

¹<http://mis.nyiso.com/public/pdf/ttcf/20211116ttcf.pdf>

²<http://mis.nyiso.com/public/pdf/ttcf/20211130ttcf.pdf>

Modelling the Outage in 2022 IRM

- According to the outage notice, the import limit on the Neptune cable, due to the transformer outage, is reduced from 660 MW to 375 MW, with an effective date ending August 1, 2022
- The NYISO proposes to incorporate this outage through reducing the import limit on the Neptune cable
 - The import limit on the Neptune cable is reduced from 660 MW to 375 MW
 - Existing transition rates of the Neptune cable remain unchanged
- The proposed modeling approach captures the outage in a manner that is consistent with the outage notice
- The derate of the import limit on the Neptune cable applies to the entire summer. This treatment represents a prudent approach if the outage were to be extended further

Tan45 Results

- The Special Sensitivity Case is conducted on the Final Base Case with a complete Tan45 process

Results	2022 FBC	Neptune Outage - Special Sensitivity	Delta
IRM	19.10%	19.60%	+0.50%
J LCR	80.40%	80.70%	+0.30%
K LCR	95.10 %	99.80%	+4.70%

Next Step

- **If adopted as the IRM Base Case value by the NYSRC Executive Committee (EC), the Neptune outage special sensitivity case will be incorporated in the IRM Study Report and Appendices**
- **The results of this Neptune outage special sensitivity case will also be presented to the EC for its consideration in setting the IRM for the 2022-23 Capability Year at the upcoming meeting on December 10**

Questions?

Our mission, in collaboration with our stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policymakers, stakeholders and investors in the power system

