

Updates to RNA Preliminary ("1st Pass") Transmission Security Reliability Needs

Keith Burrell

Manager, Transmission Studies

TPAS/ESPWG

August 1, 2022

Summary of 2022 RNA Preliminary Transmission Security Findings

- The purpose of this presentation is to provide an update to the preliminary 2022 RNA transmission security reliability needs discussed with stakeholders at the July 1, 2022 ESPWG/TPAS meeting (here)
 - The preliminary findings observed under 2032-33 winter peak conditions:
 - Steady state low voltages at the Porter 115 kV bus for various N-1-1 combinations
 - Dynamic stability issues around the Niagara 345 kV substation (both N-1 and N-1-1)
 - Under daytime light load conditions, steady state high voltages are observed in the PSEG-LI service territory under various combinations of contingencies



Update on Winter Peak Findings

Porter 115 kV low voltage

- As steady state low voltages at the Porter 115 kV bus were observed in the winter 2032-33 peak conditions further analysis was performed to identify the starting year of the need
- The first year in which the Porter 115 kV bus low voltages are observed is winter 2025-26 and is driven by the retirement of two Porter 230/115 kV transformers in winter 2025-26 as part of the Q1125 (Smart Path Connect Project) interconnection project, along with Zone E having a higher load forecast in winter as compared to summer
- As this need is driven by the retirement of two Porter 230/115 kV transformers as part of the Q1125 project, the low voltage issue will be addressed as part of the Q1125 project instead of through the Reliability Planning Process

Dynamic Stability

 For the dynamic stability issues observed under winter peak, the NYISO is in the process of reviewing updates to the modeling data provided by the Transmission Owners and will provide an update on these findings later in August



Update on Daytime Light Load Findings

- The NYISO modeled certain units within LIPA service territory as operating during light load conditions by applying rules such as the Application of Reliability Rule (ARR) 28 (found here)
 - The preliminary 2022 RNA findings had these units offline
- Upon dispatch of the units required for light load operation the high voltages observed on the LIPA system are resolved



Questions?



Our Mission & Vision



Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

