Generation Interconnections

This analysis was completed to assess the reliability impact for a new generator interconnecting to the PJM system as a capacity resource.

Network Impacts -925 MW Injection into the TMI-Hosensack 500kV line

Network Impacts

The proposed new generation will be injected into the TMI-Hosensack 500kV line at a new substation to be constructed in Gibraltar, PA.

Network Impacts

Normal System

- No identified problems.

Single Contingency (MAAC Criteria IIA)

- Contingency overload of 110% on the TMI 500/230 kV transformer due to the outage of the Conastone - Peach Bottom 500 kV line.

Multiple Facility Contingency (Towers)

- No identified problems.

Short Circuit Analysis

- A short circuit screening analysis was performed to determine the impact to network circuit breakers because of increased short circuit current provided by the proposed injection of generation. Results indicate that there may be many circuit breakers which would require replacement if this generation is installed along with all others which are previous to this project in Queue B. The short circuit screening analysis had not been performed with sufficient detail to allow for determination of whether all of the circuit breakers overdutied are solely due to this project.

System Reinforcements and Cost Allocation

- The overload on the TMI 500/230 kV transformer can be alleviated by the addition of a second 500/230 kV transformer. Estimated cost for the addition is $ 6.4

million. Installation will take approximately 3 years.