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 -500 MW Injection into the Keystone 500kV substation (D23)

Network Impacts

Potential network impacts for the injection of 5000 MW into the Keystone 500 kV substation were evaluated under summer peak conditions in 2005.

Normal System

- No identified problems

Single Contingency (MAAC Criteria IIA)

- No identified problems.

Multiple Facility Contingency - Tower Line Outages (MAAC Criteria IIC)

- No identified problems.

Generator Deliverability

- The generator contributes to a greater than 5% voltage drop at Juniata 500kV substation for the outage of Hunterstown - Conastone 500kV circuit and the Hunterstown 500/230 kV transformer #1.

Short Circuit Analysis

- No identified problems.

System Reinforcements

- The voltage drop problem at Juniata will be alleviated by installing a 350 MVAR SVC at the Juniata 500 kV substation. Estimated cost $20.3 million.

The actual cost allocation amounts for network upgrades required by more than one generation project will be defined in the Impact Study report.