Generation Interconnection

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

Network Impacts -550 MW Injection into the Keystone - Conemaugh 500kV line

Network Impacts

Potential network impacts for the injection of 550 MW into the Keystone – Conemaugh 500 kV circuit was evaluated for summer peak conditions in 2004.

Normal System

- No identified problems.

Single Contingency (MAAC Criteria IIA)

- The new generator contributes 263 MW to the voltage drop problem at the Juniata 500 kV substation for loss of the Hunterstown – Conastone 500 kV circuit and Hunterstown 500/230 kV transformer.

Multiple Facility Contingency (MAAC Criteria IIC)

- No identified problems.

Generator Deliverability

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- No identified problems.

Short Circuit Analysis

- No identified problems.

System Reinforcements

New Juniata 500 kV Static VAR Compensator

The new generation contributes to a previously identified voltage drop problem at the Juniata 500 kV substation. A new 350 MVAR SVC is required to alleviate the voltage drop. The total cost is estimated to be $14.5 million with a lead-time of 4 years. The new generator will be allocated a percentage of the costs for the upgrades based on their MW contribution in relation to other new generators.

Cost allocation percentages are not provided as part of the Feasibility Study Analysis. Cost Allocation will be provided in the Impact Study report.