



# 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 -550 MW Injection into the Hunterstown-Conemaugh 500kV transmission line (D21)**

## **Network Impacts**

The D21 project was modeled as an injection of 550 MW into the Conemaugh-Hunterstown 500 kV circuit (refer to the Direct Connection section of this report). A summary of network impacts follows:

### **Normal System**

- No identified problems

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

- No identified problems.

### **Generator Deliverability**

The generator causes a greater than 5% voltage drop problem 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**

Install a 350 MVAR SVC at the Juniata 500 kV substation. The estimated cost is \$20.3 million and the estimated time to completion is 2 years.

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