

## **Network Impacts**

The # I22 project was studied with a total of 41 MW capacity injection into the Allegheny Power Hinton Substation. Project # I22 was evaluated for compliance with reliability criteria for summer peak conditions in 2006. Potential network impacts were as follows:

### **Normal System:**

Base conditions overload the existing Hinton No. 5, 138-46kV, 8.4/10.5 MVA power transformer.

### **Single Contingency:**

No identified problems.

### **Multiple Facility Contingencies (i.e. Tower Line Outages):**

No identified problems.

### **Generator Deliverability:**

No identified problems.

### **Short Circuit Study:**

No breaker replacements required for interconnection.

### **New System reinforcements (upgrades):**

- Acquire a suitable site and construct a 46kV Bluestone Dam switching station near the generation site.
- Overbuild 2.5 miles of 12.5 kV line from Hinton Substation to Bluestone Dam with 556 kcmil ACSR at 46kV.
- Install a new 46kV breaker terminal and replace the existing Hinton No. 5, 138-46kV, 8.4/10.5 MVA power transformer with a 138-46kV, 48/64/80 MVA, LTC power transformer at Hinton Substation.
- There will be a monthly Direct Assignment charge for use of the 46kV subtransmission system.

### **Contribution to Previously Identified System Reinforcements:**

None identified.