



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 -44.7 MW Injection at the Hunlock Creek 66kV substation

Network Impacts

Potential network impacts for the injection of 44.7 MW into the Hunlock Creek 66 kV station were evaluated for summer peak conditions in 2004.

The system, as planned, was evaluated for compliance with reliability criteria. The results are summarized below.

Normal System

No problems were identified

Single Contingency (MAAC Criteria IIA)

No problems were identified

Second Contingency (MAAC Criteria IIB)

1. Outage of the Hunlock-Lincoln 66 kV line and one of the Mountain-Hunlock 66 kV lines causes the remaining Hunlock-Mountain 66 kV line to be loaded to 124% of its summer emergency rating.

Multiple Facility Contingency (MAAC Criteria IIC)

2. Outage of both Mountain-Hunlock 66 kV lines causes the Mountain-Lincoln line to be loaded to 103% of its summer emergency rating.

Short Circuit Analysis

No problems were identified

Impact Resolution

1. The Hunlock-Mountain and Hunlock-Lincoln lines are on separate rights-of-way and egress from Hunlock substation in opposite directions. It will take two separate incidents to open both lines. If either of these two lines are out of service, the operating procedure will be to reduce generation at Hunlock to a point that loss of the other line does not result in any overload.

2. The 3% overload on the Mountain-Lincoln caused by the outage of both Hunlock-Mountain circuits, which are on a common tower line, will be alleviated by running back generation at Hunlock. It should be noted that with both Hunlock-Mountain lines out of service, generation at Hunlock needs to be reduced to assure that no overloads occur upon loss of either of the two remaining lines at Hunlock.

While no problems were identified in the Feasibility Study, there is the potential that this project would be allocated costs if there is a requirement to reinforce the northern New Jersey facilities. Any requirements will be identified in the Impact study.