



Generation Interconnections

Network Impacts -20 MW Injection into the Melrose 34.5kV substation

Network Impacts

Potential network impacts for the addition of 20 MW of generation at the Melrose 34.5 kV substation 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 identified problems

Single Contingency (MAAC Criteria IIA)

- No identified problems

Multiple Facility Contingency (MAAC Criteria IIB)

- The Raritan River - Kilmer I1023 230 kV line will be above 103% of its emergency rating for a line fault on the Raritan River - Kilmer W1037 230 kV line with a stuck breaker at Raritan River resulting in the outage of the Raritan River 230/115 kV transformer.

Short Circuit Analysis

- No identified problems

System Reinforcements

The multiple facility contingency overload described above, overload of the Raritan River-Kilmer I line for a fault on the Raritan River-Kilmer W line with a stuck breaker at Raritan River resulting in the outage of the Raritan River 230/115 kV transformer, can be alleviated by increasing the rating on the overloaded line. This can be accomplished by replacing the wave trap on the Raritan River terminal of the line, which is the limiting facility. Replacement of the wave trap is estimated to cost \$60,000 and take 9 months to complete.

This project may be allocated a portion of the cost for the above described network enhancement.