

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 -471 MW Injection into the Atlantic 230kV substation (G37)

Network Impacts

Potential network impacts for the injection of 471 MW into the Atlantic 230 kV substation was evaluated for summer peak conditions in 2005.

Generator Deliverability

No identified problem

Multiple Facility Contingency – Tower Line Outages (MAAC Criteria IIC)

No identified problem

Short Circuit

The Atlantic (G37) project causes approximately 8-10, 230 kV circuit breakers at the Larrabee and Raritan River 230kV substations to exceed their interrupting capability.

New System Reinforcements

To eliminate the overdutied circuit breakers identified above, the following system upgrades are required. Replace or upgrade the 8-10, 230 kV circuit breakers at a cost of approximately \$0.3 million each. The total estimated cost for the circuit breaker replacement is \$ 2.4 to \$3.0 million and will take 1 to 2 years to complete.

Contribution to Previously Identified System Reinforcements

The G37 project will also contribute to the following previously identified network overload and will be allocated a portion of the cost for the reinforcements:

1. The project contributes approximately 134 MW to the Raritan River – Kilmer - Lake Nelson “I” 230 kV circuit overload caused by the outage of the W1037 Raritan River-Gillette 230kv line. The overload can be relieved by reconductoring the Raritan River – Kilmer - Lake Nelson “I” 230 kV circuit at a cost of \$19.7 million. It will take approximately 2.5 years to complete.

The contingency overload was initially identified with the addition of project the Parlin (E24) project. Cost allocation will be defined in the Atlantic (G37) Impact Study report.