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 Hummelstown 230kV substation

Network Impacts

Potential network impacts for the injection of 550 MW into the Hummelstown 230 kV substation via an approximately 7 mile radial circuit were evaluated for summer peak conditions in 2005. All load flow studies were performed under the assumption that the Yorkana-Otter Creek 230kV line and Otter Creek 230 kV switchyard are in-service. The D16 project cannot be granted capacity certification without the Yorkana-Otter Creek 230kV line and Otter Creek 230kV switchyard in-service.

Normal System

No identified problems.

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

No identified problems.

Generator Deliverability

No identified problems.

Short Circuit Analysis

The D16 project contributes to 6 overdutied breakers at the Brunner Island 230 kV substation.

System Reinforcements

Replacement of 6 breakers at Brunner Island 230 kV substation is expected to **cost $1.8 million** with a lead time of 2 years. The new generator will be allocated a percentage of the costs for the upgrades based on their short circuit contribution in relation to other new generators. Cost allocation percentages are not provided as part of the Feasibility Study analysis, and will be provided in the Impact Study report.