#N33 – Afton 138kV

Generation Interconnection

Network Impacts

The **#N33 project was studied as a total injection of 60 MW (12 MW of capacity) into a tap of the Albright – Garrett 138 kV circui**t. Project #N33 was evaluated for compliance with reliability criteria for summer peak conditions in 2008. Potential network impacts were as follows:

Generator Deliverability

No problems were identified *

Multiple Facility Contingency – Tower Line Outages

No problems were identified

Contribution to Previously Identified Overloads

None

New System Reinforcements

None

Contribution to Previously Identified System Reinforcements

None

Short Circuit

No required breaker replacements were identified.

* PJM also studied the delivery of the energy portion of this interconnection request. Any problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Merchant Transmission Interconnection request.

As a result of the aggregate energy resources in the area, the following violations were identified:

1. The #N33 project will contribute to the costs associated with the network upgrades for the Parsons -- William 138 kV circuit. The #N33 project contributes approximately 5 MW to the contingency overloaded facility.

2. The #N33 project will contribute to the costs associated with the network upgrades for the Loughs Lane – parsons 138 kV circuit. The #N33 project contributes approximately 5 MW to the contingency overloaded facility.

AP also completed an analysis for the energy portion of these units and identified additional potential problems:

- The #N29 project will contribute to the costs associated with the network upgrades for the Black Oak 500/138 kV transformer
- The Ridgeley - Cumberland 138kV line is overloaded for the outage of Black Oak - Hatfield 500 kV. Upgrading the Cumberland and Ridgeley 138kV Line terminals to 1272 ACSR would solve this problem.