#N32 - Gans 138kV

Generation Interconnection

Network Impacts

The **#N32 project was studied as a total injection of 60 MW (12 MW of capacity) at two different points in the system. Option 1 considers the injection into a tap of the Lake Lynn-Bethelboro 138 kV circuit. Option 2 considers the injection into a tap of the Albright-Bethelboro 138 kV circuit.** Project #N32 was evaluated for compliance with reliability criteria for summer peak conditions in 2008. Potential network impacts were as follows:

Option 1: Connection to the Lake Lynn-Bethelboro 138 kV circuit

Generator Deliverability
No problems were identified.*

Multiple Facility Contingency – Tower Line Outages
No problems were identified.

New System Reinforcements
None

Contribution to Previously Identified System Reinforcements
None

Short Circuit
No required breaker replacements were identified.

Option 2: Connection to the Albright-Bethelboro 138 kV circuit

Generator Deliverability
No problems were identified.*

Multiple Facility Contingency – Tower Line Outages
No problems were identified

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 #N32 (Option 2) project will contribute to the costs to upgrade the Parsons – William 138 kV circuit. With a distribution factor of 5.5%, it contributes approximately 3 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.
- A number of other 138 kV circuits in the area may impose additional operating restrictions. In most cases, these circuits would be expected to result in minimal re-dispatch requirements.