

Queue O18

Salix – Claysburg 115 kV

Network Impacts

The #O18 project was studied a total injection of 65 MW (13 MW of capacity) into a tap of the Claysburg to Salix 115 kV circuit. Project #O18 was evaluated for compliance with reliability criteria for summer peak conditions in 2009. 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 problems were identified

Delivery of Energy Portion of interconnection Request

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 potential operational restrictions 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:

The #O18 project contributes 8 MW to the overload of the Garret 115/138kV transformer, which had been previously caused by project #O17.

The #O18 project (energy portion) causes an overload of the Eldorado-Park Plaza 46 kV line. It loads to 101.6% of its rating. O18 contributes a total of 2% loading to this facility. Total contribution to the overload condition is 0.6% or approximately 0.4 MW.

Outage of the Jackson Road-Cambria Slope-Summit 115 kV circuit causes an overload of the Cambria Slope 115/46 kV transformer. The solution for the overload of the Cambria Slope transformer is an existing FirstEnergy system Operating Procedure. **To the extent that the proposed operation would be tolerant of a reduced generation dispatch under emergency conditions the transformer reinforcement would not be required.** It is assumed for this report that the operating procedure would be revised to include the additional generation output and that a Cambria Slope transformer would not be required. FirstEnergy accepts the operating procedure as an acceptable mitigation tool for transformer loading due to inherent time delay of thermal transformer heating, but does not view this procedure as an acceptable tool for controlling line overloads.