#O50 - Powerton - Dresden 345kV

Generator Interconnection

Network Impacts

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The **#O50 project was studied as a total injection of 200 MW (40 MW of Capacity) into a tap of the Benson to O23 345 kV line 18702**. Project #O50 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

No problems were identified.

Contribution to Previously Identified Overloads

1. It contributes 19 MW to the thermal violation of the Kammer 765/500 kV transformer in AP, which was originally caused by the #N42 project. . The necessary reinforcements and associated cost estimates are being studied by AP and will be available at the Impact Study phase for this project.
2. It contributes 62 MW to the thermal violation of the Powerton to Tazewell 345 kV line 0304. This condition was caused by the #O27 project for the tower outage of lines 16101 and 97503. The loading on the line increases from 103% to 108% of its load-dump rating (1374 MVA).
3. It contributes 135 MW to the overload of the Dresden to #O23 345 kV line 1202. This violation was first caused by the #O27 project for the tower outage of lines 16101 and 97503. The loading on the line increases from 103% to 113% of its load-dump rating (1320 MVA).

New System Reinforcements

To be determined.

Contribution to Previously Identified System Reinforcements

To be determined.

Short Circuit

No problems were identified.

Potential Issues

Note: Impact on the MISO member transmission Systems is not included in this analysis, but will be in the Impact Study, which possibly may reveal upgrades needed in the MISO system not identified in this Feasibility Study.

During certain maintenance outages the O50 project will be required to be taken off-line.

The O50 project may impact the Powerton Stability Schemes due to the interconnection point on line 18702.

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