Feasibility Study Report
L10 Hatfield 500 kV

(L10)

Network Impacts

The **#L10 project was studied as a total of 525 MW** injection into the Hatfield 500 kV substation. Project # L10 was evaluated for compliance with reliability criteria for summer peak conditions in 2007. Potential network impacts were as follows:

Normal System (ECAR Standard 1)

No identified problems.

Single Contingency (ECAR Standard 2)

There is a 500 kV voltage drop problem at Juniata due to an outage of the Hunterstown – Conastone 500kV circuit and Conastone 500/230kV transformer.

Multiple Facility Contingencies (i.e. Tower Line Outages) (ECAR Standard 3)

No identified problems.

Second Contingency (ECAR Standard 5)

Not run.

Generator Deliverability:

No identified problems.

Stability (ECAR Document No. 1)

Not run.

Load Deliverability

Not run.

Short Circuit Study:

No breaker replacements required for interconnection.

New System Reinforcements (Upgrades):

No identified problems.

Contribution to Previously Identified System Reinforcements;

Install 200 MVAr SVC at Juniata 500kV substation to solve the voltage drop problem. The reinforcement was identified for previous project and the L10 contributes approximately 155MW to the facility loading. The total cost of the SVC is estimated to be $24.0 million and is expected to take two years to construct.

Cost allocation percentages are not provided as part of the Feasibility Study analysis, however, cost allocation will be provided during the Impact Study evaluations.

Costs for System Reinforcements

Project L10 is 100% responsible for the $24.0 million Static VAr Compensator cost.