

***PJM Generator Interconnection
U2-067 Eldred – Pine Grove 2.5 MW
Feasibility / Impact Study***

October 2008

Docs # 499365

Network Impacts

The Queue U2-067 project was studied as a 2.5 MW injection into the Eldred – Pine Grove 69 kV line. The project was evaluated for compliance with reliability criteria for summer peak conditions in 2012. Potential network impacts were as follows:

Local System Impacts (Normal system conditions with all facilities in service)

The Eldred to Frailey Tap section of the Eldred to Pine Grove 69 kV line will require upgrade (advancement of the PPL EU planned upgrade) as a result of Queue O40 interconnection. Queue S40 also contributes to the need for this upgrade. Queue U2-067 also contributes to additional need for this upgrade; however, will not receive a cost allocation for this work because its impact is less than the threshold required for cost allocation.

Generator Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

No Problems were identified

Multiple Facility Contingency

(Double Circuit Tower Line contingencies only for the full energy output. Stuck breaker and bus fault contingencies will be performed for the Impact Study)

No Problems were identified

Contribution to Previously Identified Overloads

(This project contributes to the following contingency overloads, i.e. “Network Impacts”, identified for earlier generation or transmission interconnection projects in the PJM Queue)

No problems were identified

Short Circuit Analysis

Not required because there is no change to generator or transformer impedances.

Stability Analysis

Not required because there is no change to generator or transformer characteristics.

New System Reinforcements

(Upgrades required to mitigate reliability criteria violations, i.e. “Network Impacts”, initially caused by the addition of this project generation)

None.

Contribution to Previously Identified System Reinforcements

(Overloads initially caused by prior Queue positions with additional contribution to overloading by this project. This project may have a % allocation cost responsibility which will be calculated and reported for the Impact Study)

None.