PJM Generator Interconnection Request Feasibility Study Report

Queue Position U3-030

January 30, 2009
DOCS No. 523737

Network Impacts

The queue project U3-030 was studied as a 43MWE (energy) and 38 MWC (Capacity) injection into the DL system at the Beaver Valley #2 substation. U3-030 was evaluated for compliance with reliability criteria for summer peak conditions in 2012. Potential network impacts were as follows:

Direct Connection

The proposed generation project will be connected to the DLCO transmission system at the existing point of interconnection in the Beaver Valley switchyard. The proposed interconnection will not require any additional construction.

The following assumptions were used in the preparation of this high-level cost estimate:

- The existing relay protection and communications equipment associated with the protection of the DLCO system is adequate for the increased generation.
- The customer will be responsible for the engineering, purchasing and construction of any changes required to the customer substation.
- The customer's substation and equipment beyond the DLCO metering point be coordinated and must meet all National, State, Local, and DLCO requirements.

Generator Deliverability

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

None.

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)

None

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)

None.

New System Reinforcements

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

No system upgrades were identified during the course of this feasibility study.

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)

To be determined at System Impact Study

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 operational restriction at their discretion by submitting a Transmission Interconnection Request. Note: Only the most severely overloaded conditions are listed below. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which shall study all overload conditions associated with the overloaded element(s) identified.

None.

Short Circuit

No breaker replacements were identified during the short circuit analysis.

Preliminary Cost Estimate

As there are no Direct Connection costs to the existing connection and no New System Reinforcements have been identified the preliminary cost estimate for the proposed generator project is **$0.00**.

Construction Lead Time

This project will not require any additional time to complete from the date of receipt of a signed Interconnection Service Agreement (ISA) because this project will utilize an existing interconnection point and no New System Reinforcements were identified. If developer elects to pursue the System Impact Study, a more comprehensive analysis will be performed which will include a system stability analysis.