Merchant Transmission Project
Feasibility Study Report
Web Version

For

PJM Generation Interconnection Request
Queue Position W2-043

Albright-Snowy Creek 138kV Project

PJM DOCS No. 617597v1
October, 2010

General:

Interconnection Customer has proposed a merchant transmission project to upgrade the Albright-Snowy Creek 138kV line with 954 ASCR conductor and necessary terminal equipment, sufficient to raise the emergency rating from 196 MVA to 297 MVA. The developer has proposed an in-service date of April 1, 2011. This analysis was performed using a 2014 base year.

The purpose of the feasibility study is to determine magnitude cost and the construction time estimates to connect the project at a location specified by the Interconnection Customer. As a requirement for interconnection, the project developer will be responsible for all direct connection as well as any network upgrade costs required for the connection of this project to maintain the reliability of the PJM system. All facilities installed by the project developer must be designed to meet the Allegheny Power technical specifications.

Potential network impacts were as follows:

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

No problems identified.

Multiple Facility Contingency
(Double Circuit Tower Line Contingencies only with full energy output. Stuck Breaker and Bus Fault contingencies will be applied during the Impact Study)

No problems identified.

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

No problems identified.

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.

Short Circuit

Not required.

Energy Portion of Interconnection Request

PJM also studied the delivery of the energy portion of the surrounding generation. Any potential 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. 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 analyzes all overload conditions associated with the overloaded element(s) identified. As a result of the aggregate energy resources in the area, the following violations were identified.

No problems identified.

APS Estimation of Scope of Work, Cost, and Schedule

The estimated costs associated with this work are as follows:

- Rebuild approximately 6 miles of the existing Albright – Snowy Creek 138kV line with 954 ACSR conductor.

Estimated Cost: $6,173,210 in 2012 dollars

- At Albright Substation, upgrade the Parr Run 138kV line terminal line trap, bus taps, breaker risers, disconnect leads, connectors, and RTU MW ratings to meet a 1243A, 4 hour rating.

Estimated Cost: $73,390 in 2012 dollars

The estimated **duration for completion of this project is 21 months**. Tax gross-up is not included in the above estimates.