

***Generation Interconnection Feasibility Study
Report***

***PJM Generation Interconnection Request
Queue Position #U3-017
Westvaco 138kV
4 MW***

January 2009

Preface

The intent of the Generation Interconnection Feasibility Study is to determine a plan, with ballpark cost and construction time estimates, to connect the subject generation interconnection project to the PJM network at a location specified by the Interconnection Customer. As a requirement for interconnection, the Interconnection Customer may be responsible for the cost of constructing Network Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM system.

The proposed interconnection facilities must be designed in accordance with the Allegheny Power Technical Requirements and Standards.

In some instances an Interconnection Customer may not be responsible for 100% of the identified Network Upgrade cost because other transmission network uses, e.g. another generation interconnection or merchant transmission upgrade, may also contribute to the need for the same network reinforcement. The possibility of sharing the reinforcement costs with other projects may be identified in the Generation Interconnection Feasibility Study, but the actual allocation will be deferred until the System Impact Study is performed.

The Generation Interconnection Feasibility Study estimates do not include the feasibility, cost, or time required to obtain property rights and permits for construction of the required facilities unless noted in the report. The project Interconnection Customer is responsible for acquiring any necessary right of way and real estate, as well as applying for and obtaining any and all permits unless prior agreement by interested parties allows for other arrangements. For properties currently owned by Transmission Owners, some permitting and real estate costs may be included in the study.

Cost and Timing Estimates

The estimates in this report do not include tax gross-up.

While the information in this transmittal is reasonable for the scope of work defined, it should, however, be noted that the cost figures and time estimates are conceptual in nature at this stage, as an engineering team has not been assigned to the project. Any change to the scope of work will require that the estimates be revisited. The costs are a best estimate, but the Interconnection Customer will be charged for actual costs. Any under-runs or over-runs will be reconciled at the conclusion of the project.

General

The Queue Position #U3-017 project was studied as a 4MW increase in Behind the Meter Generation at the same location as the Queue Position #S38 project in the APS area. This provides a total of 12MW of Energy Resource generation when combining the Queue Position #U3-017 and S38 projects. Queue Position #U3-017 was evaluated for compliance with reliability criteria for summer peak conditions in 2012. Simplified one line diagrams of the proposed options are shown in Figure #1.

Reactive Power

Requirements to be provided during the System Impact Study or Facilities Study phase of the project studies.

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Direct Connection

No additional facilities are required for this Queue Position #U3-017 project other than those already proposed for the Queue Position #S38 project. Should the Queue Position #S38 project fail to proceed to construction and commercial operation, then this Queue Position #U3-017 project will be required to install and or fund required upgrades as have been previously specified for the Queue Position #S38 project.

Potential network impacts were as follows:

Network Impacts

Generator Deliverability

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

No problems were identified

Multiple Facility Contingency

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

No problems were identified

Figure 1

