

***Generation Interconnection
Combined Feasibility/System Impact
Study Report***

For

***PJM Generation Interconnection Request
Queue Position W1-039***

Pedricktown 230kV

July 2010

Preface

The intent of the Combined Feasibility/System Impact Study is to determine a plan, with approximate 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 or Local Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM or Interconnected Transmission Owner system. All facilities required for interconnection of a generation interconnection project must be designed to meet the technical specifications (on PJM web site) for the appropriate Interconnected Transmission Owner.

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 Feasibility Study, but the actual allocation will be deferred until the System Impact Study is performed.

The Combined Feasibility/System Impact Study estimates do not include the feasibility, cost, or time required to obtain property rights and permits for construction of the required facilities. The project developer is responsible for the right of way, real estate, and construction permit issues. For properties currently owned by Transmission Owners, the costs may be included in the study. The project developer must secure and convey any property or rights-of-way necessary for the Transmission Owner to construct, operate, and maintain their facilities. This conveyance must be in the form of either a deed or a permanent easement.

General

Pedricktown Cogeneration Company Limited Partnership, the Interconnection Customer (IC), has proposed a 10 MW (10 MW capacity) increase to their existing combined cycle generating facility located in Pedricktown, New Jersey. W1-039 was studied as a 10 MW injection into the Atlantic City Electric system at the Pedricktown 230kV substation. The project was studied on a combined feasibility-impact basis which utilizes an AC analysis and incorporates all contingency types. Project W1-039 was evaluated for compliance with reliability criteria for summer peak conditions in 2014. The proposed in-service date for the increase is June 1, 2011.

Point of Interconnection

The W1-039 project will utilize the existing POI (see Attachment 1).

Direct Connection Requirements

Transmission Owner Scope of Direct Connection Work

The Transmission Owner (TO) scope of work includes:

There is no TO work scope for W1-039.

Interconnection Customer Scope of Direct Connection Work

If not already in place, the IC will be required to install metering and telemetry equipment to provide revenue metering and real-time telemetry data to PJM. The requirements for this equipment are listed in Appendix 2, Section 8 of Attachment O to the PJM Tariff, as well as PJM Manuals 01 and 14D. Protective relaying and metering design and installation must comply with the Atlantic City Electric Applicable Standards.

Network Impacts

Potential network impacts are as follows:

Generator Deliverability

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

None

Multiple Facility Contingency

*(Double Circuit Tower Line, Line with Failed Breaker and, Bus Fault contingencies for the **Full** energy output.*

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

Short Circuit

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's generation)

None

Contribution to Previously Identified System Reinforcements

(Overloads initially caused by prior Queue positions with additional contribution to overloading by this project.

None

Stability Analysis

Not required.

Pedricktown Co-Generation Substation (PCLP Facility & ACE Interconnection Facilities)

