

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

***For***

***PJM Generation Interconnection Request  
Queue Position V1-021***

***Cape May County 12kV***

**July 2009**

## **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 Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM 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 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 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.

## **General**

The Cape May County Municipal Utilities Authority (CMCMUA), the Interconnection Customer (IC), has proposed a 1.9 MW (1.7 MW capacity) methane fueled generating facility, consisting of two (2) 925 to 1000 kW engine generator sets. The facility will be located at the CMCMUA landfill in Woodbine, New Jersey. V1-021 was studied as a 2 MW injection into the Atlantic City Electric's system at the Corson 12.9 kV substation and was evaluated for compliance with reliability criteria for summer peak conditions in 2013. The planned in-service date is May, 2010.

Attachment facilities and local upgrades (if required) along with terms and conditions to interconnect V1-021 will be specified in a separate two party interconnection agreement between the Transmission Owner and the Interconnection Customer as this project is considered FERC non-jurisdictional per the PJM Open Access Transmission Tariff (OATT). *From the transmission system perspective, no network impacts were identified as detailed below.*

### **Point of Interconnection**

V1-021 will interconnect with the Atlantic City Electric distribution system as a tap of the existing Woodbine 12kV distribution circuit #NJ0852 which is a feeder circuit from the Corson substation.

### **Network Impacts**

Potential network impacts were 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**

Not required.

**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.