Generation Interconnection Combined Feasibility/System Impact Study Report

PJM Generation Interconnection Request Queue Position #U2-025

Brooke County Landfill

November, 2008

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General

G. A. S. Energy Technology, Inc., the Interconnection Customer, has proposed a 4 MW (4 MW capacity) methane gas fueled generating facility to be located at the Brooke County Landfill in Colliers, West Virginia. The generating facility will consist of four (4) 1 MW generators. The proposed in-service date for the project is July, 2009.

Attachment facilities and local upgrades (if required) along with terms and conditions to interconnect U2-025 will be specified in a separate two party interconnection agreement between the Transmission Owner (Allegheny Power) 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

U2-025 will interconnect with the Allegheny Power (AP) distribution system via a tap of the Weirton-Mahans Lane 25 kV circuit at pole number 1H9658 (see Attachment 1).

Network Impacts

U2-025 was studied as a total injection of 4 MW into the AP system as a tap of the Weirton-Mahans Lane 25 kV circuit. The project was evaluated for compliance with reliability criteria for summer peak conditions in 2012.

Generator Deliverability

(No Contingencies, Single or N-1 contingencies for the full energy output)

No problems were identified.

Multiple Facility Contingency

(Double Circuit Tower Line, Line with Failed Breaker and Bus Fault contingencies for the full energy output)

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.

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Short Circuit

No breakers on the transmission system were identified as being over their maximum interrupting rating as a result of U2-025.

Stability and Reactive Power Requirements

Not required due to size of project.

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

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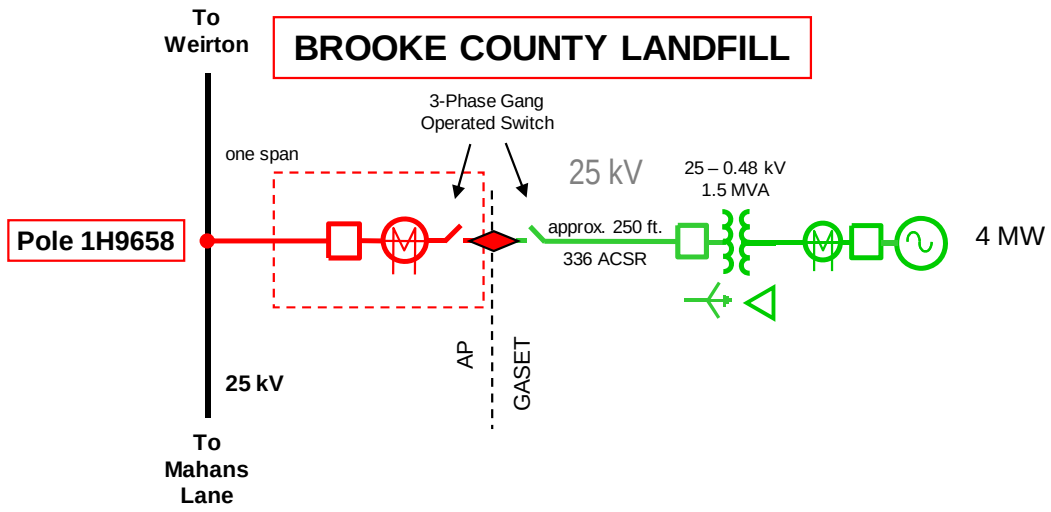
PJM QUEUE U2 025
1 methane gas generator (typical of 4) connected to the 25 kV line as shown for a total generating capability of 4 MW. Install breaker and line terminal equipment.

G.A.S. Energy Technology Inc.

4 methane gas generators will be connected for a total generating capability of **4 MW**.



AP	5/01/2009	
G.A.S. ENERGY TECHNOLOGY, INC.	5/01/2009	
POINT OF INTERCONNECTION		

NOTE: The requested 5/1/09 ISD may not be realistic. A 10/1/09 ISD may be attainable if notification to proceed were obtained by 11/1/08. Permitting issues may delay the project.

SOURCE: R. A. Boyd	Allegheny Power PLAN	DRAWN: 11/24/2008 R. BOYD	PLAN NUMBER
CAD FILE: U2_025 Brooke Cnty Landfill plan		CHKD:	
REVIEWED:	BROOKE COUNTY LANDFILL SS. PROVIDE INTERCONNECTION FACILITIES FOR G.A.S. ENERGY TECHNOLOGY NON-UTILITY GENERATION WEIRTON SERVICE CENTER	SCALE: NS	
APPROVED / DATE		FUNDING PROJECT: D-xxxxx	REV: 1

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