PJM Generator Interconnection Request
Queue #O02
Glendon (Chrin Landfill) 34.5kV
Feasibility/Impact Study Report

May 2006
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Glendon (Chrin Landfill) 34.5kV (O02) Feasibility/Impact Study

General

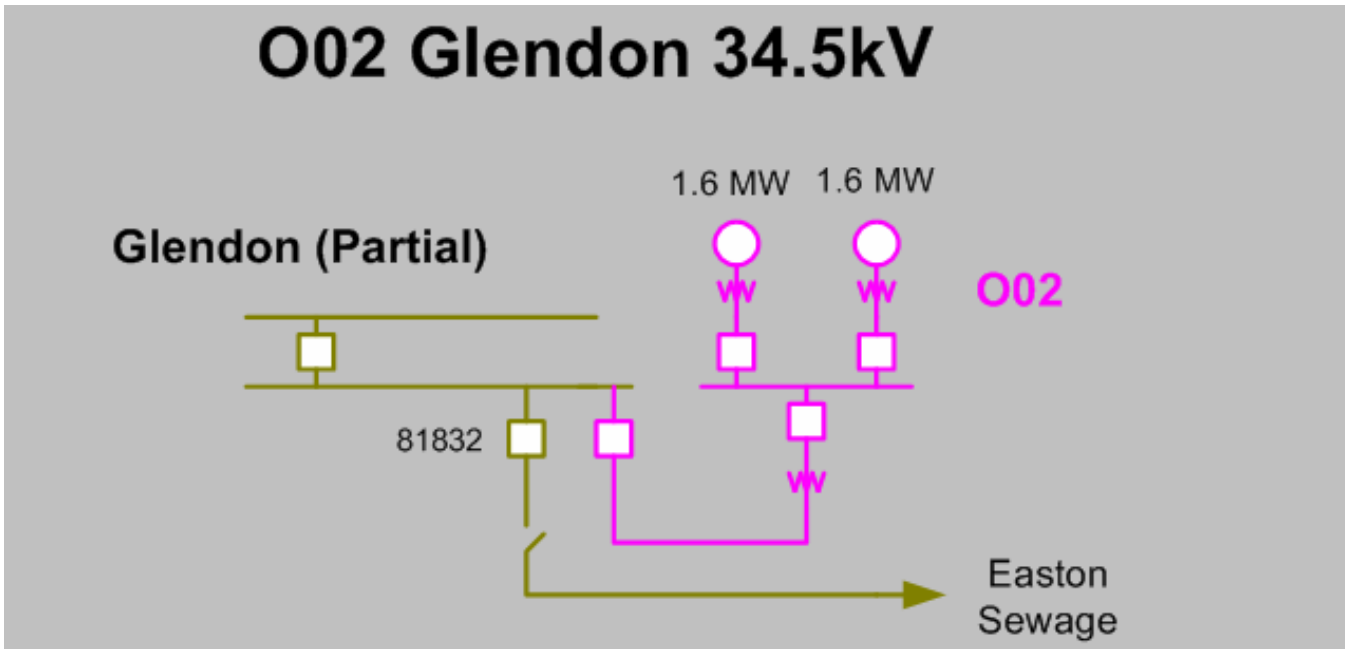
PPL Shoreham Energy, LLC has proposed a project consisting of two 1600 kW Caterpillar G3520 generators to be installed at the Chrin Brothers Landfill at 635 Industrial Drive in Easton, Northampton County, Pennsylvania that will use landfill gas (methane) as fuel. This project has been assigned position O02 in the PJM Generation Interconnection Queue. The project is to be evaluated as a capacity resource. The proposed in-service date is December 31, 2006.

The intent of the feasibility / impact study is to determine system reinforcements and associated costs and construction time estimates required to facilitate the addition of the new generating plant to the transmission system. The reinforcements include the direct connection of the generator to the system and any network upgrades necessary to maintain the reliability of the transmission system.

Direct Connection

The Chrin Landfill project is connected to the 34.5kV distribution circuit that terminates in breaker 81832 at the Glendon 34.5kV substation. Since there are no other generators connected to this distribution circuit the connection of the landfill generator is not jurisdictional under the PJM Tariff. The developer is required to meet Metropolitan Edison's requirements for connection to the distribution circuit.

Figure #1



Network Impacts

The #O02 project was studied as an injection of 3.2 MW into the Glendon 34.5kV bus. Project #O02 was evaluated for compliance with reliability criteria for summer peak conditions in 2009. Potential network impacts were as follows:

Generator Deliverability

No identified problems

Multiple Facility Contingency – Tower Line Outages

No identified problems

Contribution to Previously Identified Overloads

None

Short Circuit

No identified problems

Stability

No analysis required

New System Reinforcements

None

Contribution to Previously Identified System Reinforcements

None