PJM Generator Interconnection Request
Queue #Q19
Atlantic (MCRC) 13.2kV
Feasibility/Impact Study Report

September 2006
#388482

Atlantic (MCRC) 13.2kV (Q19) Feasibility/Impact Study

General

Monmouth County, New Jersey has proposed installing a 1MW generator powered by methane at the Monmouth County Reclamation Center located at 5298 Asbury Avenue, Tinton Falls, Monmouth County, New Jersey. This project has been assigned position Q19 in the PJM Generation Interconnection Queue. The project is to be evaluated as a capacity resource. The proposed in-service date is November 1, 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 generator is proposed to be connected to a 13.2kV distribution circuit emanating from the Atlantic Substation transformer bank #5. Since connection is to a distribution facility the direct connection will be via an agreement between Monmouth County and Jersey Central Power & Light Company. See Figure #1

As a capacity resource the project is required to provide the following data to PJM.

The Interconnection Customer is responsible for installing metering equipment that is capable of transmitting the following real time data to PJM. (See PJM manual 14D)

a. Instantaneous net MW for the plant
b. Instantaneous net MVAR for the plant

The Interconnection Customer is responsible for installing metering equipment that is capable of transmitting the following non real-time data to PJM. (See PJM manual 14D)

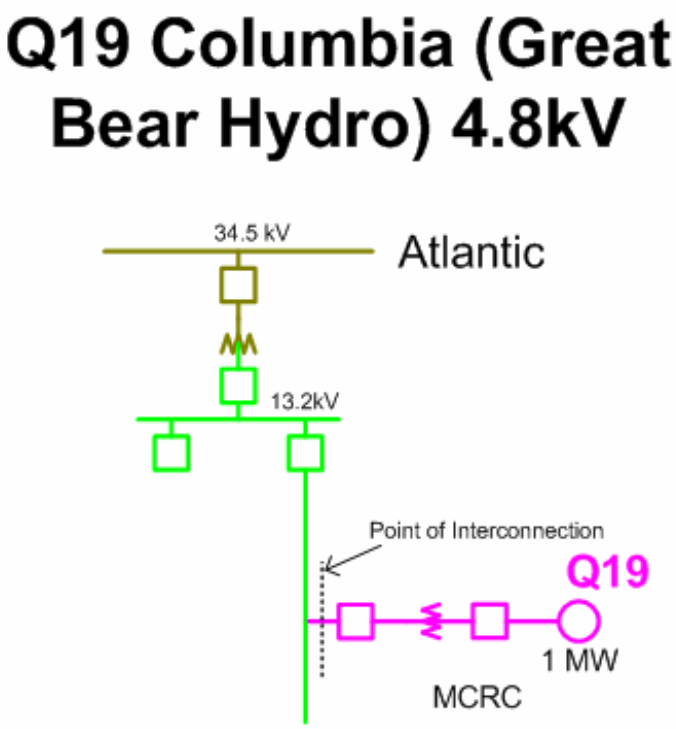
a. Hourly compensated MWh delivered by the plant.
b. Hourly compensated MWh received by the plant.
c. Hourly compensated MVARh delivered by the plant
d. Hourly compensated MVARh received by the plant

If the project does not want to participate in the capacity market, but wants to sell energy only the following data needs to be provided to PJM

The Interconnection Customer is responsible for installing metering equipment that is capable of transmitting the following real time data to PJM. (See PJM manual 14D)

c. Instantaneous net MW for the plant
d. Instantaneous net MVAR for the plant

Figure #1



Network Impacts

The #Q19 project was studied as an injection of 1.0 MW into the Atlantic 34.5kV bus. Project #Q19 was evaluated for compliance with reliability criteria for summer peak conditions in 2011. 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