PJM Generator Interconnection
T11 Laurel - Sussex 5 MW
Feasibility / Impact Study

August 2007

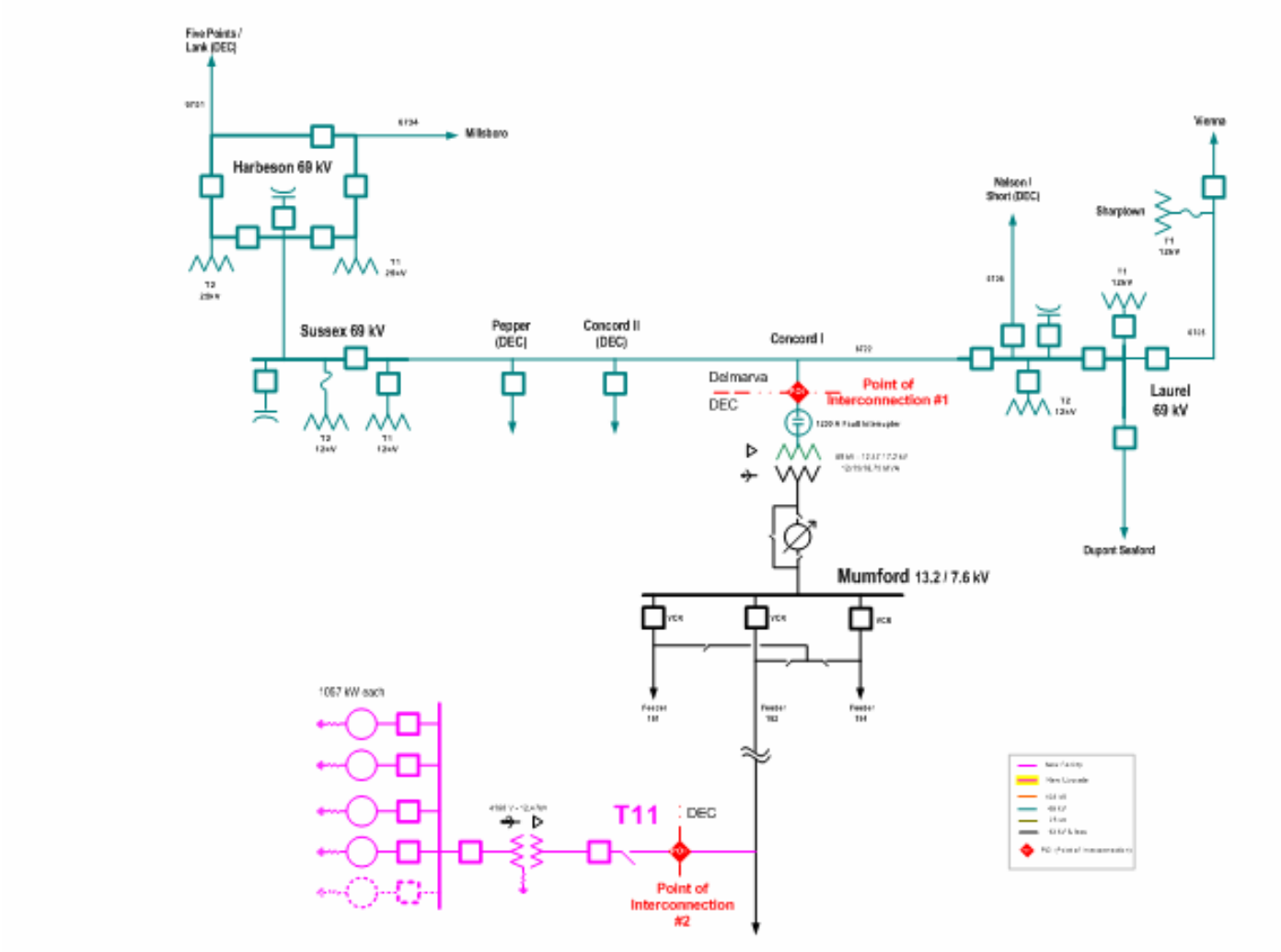
DMS# 433327

General

Queue T11 is an AMERESCO request for 5 MW Capacity Interconnection Rights for generation already connected as an Energy-only Resource (See previous PJM Queues N17-P33). T11 generation consists of four (4) existing, and (1) one future, 1057 KW Diesel / Landfill Gas engine-generators installed at the Southern Landfill, 28560 Landfill Lane, Georgetown, New Castle County, Delaware and interconnected to DEC (Delaware Electric Cooperative) Mumford substation Feeder 182. Four generators are presently connected, one generator is planned for future interconnection. Project T11 Capacity (4 MW) is already available for commercial operation.

Direct Connection Requirements

Project T11 is connected to DEC's Mumford substation Feeder 182 as shown on the one line diagram below. There are no additional Direct Connection requirements.



Interconnection Customer Scope of Work
No additional work is required.

DEC (Delaware Electric Cooperative) Scope of Work
No additional work is required.

Delmarva Scope of Work
No additional work is required.

Network Impacts

The Queue T11 project was studied as a 5 MW Capacity injection into the Laurel – Sussex 69 kV line at the interconnection point to D.E.C.'s Mumford substation. The project was evaluated for compliance with reliability criteria for summer peak conditions in 2012. Potential network impacts were as follows:

Local System Impacts (Normal system conditions with all facilities in service)
No Problems were identified

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

No Problems were identified

Multiple Facility Contingency
(Double Circuit Tower Line contingencies only for the full energy output. Stuck breaker and bus fault contingencies will be performed for the Impact Study)

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

Short Circuit
No problems identified.

Stability Analysis
Not required for generating stations less than 30 MW.

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