# Generation Interconnection

# Queue Project AE1-185

# Hokes – Jackson 69 KV

# Feasibility Study Report

# Capacity : 12.6 MW / Energy : 20 MW

February, 2019

# General

Interconnection Customer has proposed a new solar generating facility located in York County, Pennsylvania. The installed facilities will have a total capability of 20 MW Energy with 12.6 MW of this output being recognized by PJM as Capacity Interconnection Rights. The proposed in-service date for this project is April 1, 2021. **This study does not imply a Mid-Atlantic Interstate Transmission, LLC (Transmission Owner or MAIT) commitment to this in-service date.**

# Point of Interconnection

The AE1-185 solar facility will interconnect with the MAIT subtransmission system by tapping the Hokes – Jackson 69 kV line at a point located approximately 3.8 miles from Hokes substation and approximately 3.5 miles from Jackson substation.

# Network Impacts

The Queue Project AE1-185 was evaluated as a 20 MW (Capacity 12.6 MW) injection at Hokes – Jackson 69 kV line in the MetEd area. Project AE1-185 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AE1-185 was studied with a commercial probability of 53%. Potential network impacts were as follows:

# Summer Peak Analysis – 2022

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

None

**Multiple Facility Contingency**
(Double Circuit Tower Line, Fault with a Stuck 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**
None. (No overdutied circuit breakers identified)

**Potential Congestion due to Local Energy Deliverability**
PJM also studied the delivery of the energy portion of this interconnection request. Any problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Merchant Transmission Interconnection request.

Note: Only the most severely overloaded conditions are listed below. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which shall study all overload conditions associated with the overloaded element(s) identified.

..None

# System Reinforcements

**Short Circuit**
None.

**Stability and Reactive Power Requirement**
Will be determined at a later study stages.

**Summer Peak Load Flow Analysis Reinforcements**

**New System Reinforcements**
(Upgrades required for mitigating 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.