Generation Interconnection

Combined Feasibility / Impact Study Report

for

Queue Project AE2-062

Normantown

0 MW Capacity / 0.98 MW Energy

June, 2019

1 Preface

The intent of the feasibility study is to determine a plan, with ballpark cost and construction time estimates, to connect the subject generation to the PJM network at a location specified by the Interconnection Customer. The Interconnection Customer may request the interconnection of generation as a capacity resource or as an energy-only resource. As a requirement for interconnection, the Interconnection Customer may be responsible for the cost of constructing: (1) Direct Connections, which are new facilities and/or facilities upgrades needed to connect the generator to the PJM network, and (2) Network Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM system.

In some instances a generator interconnection may not be responsible for 100% of the identified network upgrade cost because other transmission network uses, e.g. another generation interconnection, may also contribute to the need for the same network reinforcement. Cost allocation rules for network upgrades can be found in PJM Manual 14A, Attachment B. The possibility of sharing the reinforcement costs with other projects may be identified in the feasibility study, but the actual allocation will be deferred until the impact study is performed.

The Feasibility Study estimates do not include the feasibility, cost, or time required to obtain property rights and permits for construction of the required facilities. The project developer is responsible for the right of way, real estate, and construction permit issues. For properties currently owned by Transmission Owners, the costs may be included in the study.

2 General

The Interconnection Customer (IC), has proposed a Storage; Battery generating facility located in Will County, Illinois. The installed facilities will have a total capability of 0.98 MW with 0 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is under review.

Queue Number	**AE2-062**
Project Name	ROMEOVILLE
State	Illinois
County	Will
Transmission Owner	ComEd
MFO	1
MWE	0.98
MWC	0
Fuel	Storage; Battery
Basecase Study Year	2022

2.1 Point of Interconnection

AE2-062 will interconnect with the ComEd transmission system at the TDC 525 Normantown 138kV-12.5kV substation.

3 Transmission Owner Scope of Work and Schedule

The interconnection for this project is within the jurisdiction of a state tariff and the PJM process is solely for the access to the wholesale energy and ancillary markets.

The substation identified is **TDC525 Normantown** with Feeder **J1172.**

The project ID for this application in the Illinois DER Interconnection queue is **18-03894**

4 Revenue Metering and SCADA Requirements

The Interconnection Customer will be required to install equipment necessary to provide Revenue Metering (KWH, KVARH) and real time data (KW, KVAR) for IC's generating Resource. See PJM Manuals M-01 and M-14D, and PJM Tariff Section 8 of Attachment O.

5 Network Impacts

The Queue Project AE2-062 was evaluated as a 1.0 MW (Capacity 0.0 MW) injection at the Normantown 138kV substation in the ComEd area. Project AE2-062 was evaluated for compliance with applicable reliability

planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AE2-062 was studied with a commercial probability of 1.00. Potential network impacts were as follows:

6 Generation Deliverability

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

None

7 Multiple Facility Contingency

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

None

8 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

9 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.

None identified

10 System Reinforcements

No transmission systems reinforcements are required

11 Short Circuit

Not required