Facilities Study Report

For

Physical Interconnection of

PJM Generation Interconnection Request

Project ID AG2-037

“Findlay – Midfield 23 kV”

Introduction

This Facilities Study has been prepared in accordance with the PJM Open Access Transmission Tariff, as well as the Application and Studies Agreement between the Project Developer and PJM Interconnection, LLC (PJM or Transmission Provider (TP)). The Transmission Owner (TO) is Duquesne Light Company (DLC).

This Facilities Study was performed to satisfy the Phase 2 Facilities Study requirement of the PJM Tariff. The Facilities Study is intended to provide scope, cost and schedule estimates for the project as currently defined and approved for Phase 2 study. In the event project changes are made during DP2 that impact this report, updates will be provided as part of the Phase 3 report. Following execution of the project's final agreement, this report will not be updated to account for other changes made as part of the agreements modification clause and instead the scope change process will be followed.

A. Transmission Owner Facilities Study Summary

1. PROJECT DESCRIPTION

The Project Developer (PD) has proposed a solar Generating Facility located in Allegheny County, Pennsylvania with a designated PJM Project ID of AG2-037. The installed facilities will have a total Maximum Facility Output (MFO) of 4.7 MW with 2.82 MW of this output being recognized by PJM as Capacity.

2. POINT OF INTERCONNECTION (POI)

The Generating Facility will interconnect with via tapping the existing Findlay – Midfield No.2 22839 23 kV subtransmission circuit.

The Point of Interconnection is the tap point on the Duquesne Light-owned pole 473883.

The proposed generation interconnection is shown on the single line diagram in Attachment #1.

3. POINT OF CHANGE IN OWNERSHIP

The Point of Change in Ownership will be located at the existing Duqesne Light-owned pole top switch PT493 located on the Duquesne Light-owned pole 473783.

4. SCOPE OF PROJECT DEVELOPER INTERCONNECTION FACILITIES

Project Developer will design, build, own, operate and maintain the Project Developer Interconnection Facilities on Project Developer’s side of the Point of Change in Ownership (PCO). This includes, but is not limited to:

- Circuit breakers and associated equipment located between the high side of the MPT(s) or GSU(s) and the Point of Change in Ownership
- Generator lead line from the Generating Facility to the Point of Change in Ownership

- Relay and protective equipment, telecommunications equipment, and Supervisory Control and Data Acquisition (SCADA) to comply with the TO's Applicable Technical Requirements and Standards
- Utility accessible disconnect switch that is lockable and provides a visible open break.
- Overcurrent protection device capable of interrupting faults on the customer side of the point of interconnection.
- Pad-mount metering enclosure and foundation.
- Mounting location for the power quality monitor and power supply box, preferably a freestanding pedestal in close proximity to the primary metering equipment.
- All underground ducts/conduit between the POI and metering enclosure.

B. Transmission Owner Facilities Study Results

The following is a description of the planned Transmission Owner facilities for the physical interconnection of the proposed AG2-037 project to Duquesne Light the transmission system. These facilities shall be designed according to Duquesne Light Applicable Technical Requirements and Standards. Once built, Duquesne Light will own, operate, and maintain these Facilities.

1. TRANSMISSION OWNER INTERCONNECTION FACILITIES:

AG2-037 is interconnecting at an existing PCO for a state-jurisdictional net-metered facility. In order to facilitate the interconnection of AG2-037, DLC will install the following:

- Dedicated power quality monitor
- Current and Potential Transformers for metering purposes and their associated secondary wiring

2. STAND ALONE NETWORK UPGRADES

No Stand Alone Network Upgrades have been identified for this project.

3. NETWORK UPGRADES

No Network Upgrades for physical interconnection work have been identified.

4. OTHER SCOPE OF WORK

No Other Scope of Work has been identified.

5. MILESTONE SCHEDULE FOR COMPLETION OF DUQUESNE LIGHT WORK

Facilities outlined in this report are estimated to take 12 months to construct, from the time the Generation Interconnection Agreement is fully executed. This schedule is may be impacted by the timeline for procurement and installation of long lead items, the ability to obtain outages to construct and test the proposed facilities.

Description	Start month	Finish month
Detailed Design	1	3
Permitting	2	3
Construction	4	12

6. ASSUMPTIONS IN DEVELOPING SCOPE/COST/SCHEDULE

DLC assumes lead times for certain materials to be approximately 12 months. This schedule may extend to a total of 15 months, depending on material lead times.

As of this Facilities Study, no relay changes are required. However, this may change with future studies.

7. REVENUE METERING REQUIREMENTS

All revenue metering needed for this interconnection project must meet the metering requirements stated in Appendix 2, section 8 of the AG2-037 GIA, and in PJM Manuals M01 and M14D. The details of applicable revenue metering requirements are given in the Duquesne Light Company Distribution System Generation Interconnection Requirements document posted on the PJM website.

The generation's revenue metering will be installed on the Project Developer side of the Point of Change in Ownership. It will be installed, owned and maintained by Project Developer. Any retail revenue metering will be installed, owned, and maintained by DLC.

8. LAND REQUIREMENTS FOR INTERCONNECTION SUBSTATION

This project does not require land for an interconnection substation.

9. APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS

Applicable Technical Requirements and Standard: The Duquesne Light Company Distribution System Generation Interconnection Requirements revision 0 dated September 9, 2024 shall apply.

10. ENVIRONMENTAL AND PERMITTING

DLC does not anticipate any environmental or permitting impacts to DLC Interconnection Facilities.

C. APPENDICES

Attachment #1: Single line Diagram for the Physical Interconnection

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