

Facilities Study Report
For
Physical Interconnection of
PJM Generation Interconnection Request
Project ID AH1-711

“Lemoyne 345 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 American Transmission Systems, Inc. (ATSI), a FirstEnergy company.

This Facility Study was performed to satisfy the Phase 2 Facility Study requirement of the PJM Tariff. The Facility 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 has proposed an uprate to an existing Natural Gas Generating Facility located in Wood County, Ohio. The AH1-711 project is a 408.2 MW (292.5 MW Capacity) uprate to the previous project (AD1-118), for a total Maximum Facility Output (MFO) of 1108.2 MW with 352.5 MW of this output recognized by PJM as Capacity.

2. POINT OF INTERCONNECTION (POI)

The Generating Facility will interconnect with the ATSI transmission system at the existing Lemoyne Substation as an uprate to AD1-118.

3. POINT OF CHANGE IN OWNERSHIP (PCO)

The Point of Change in Ownership (PCO) will remain the same as AD1-118, located at the last Project Developer-owned structure outside the existing Lemoyne substation fence line

4. SCOPE OF PROJECT DEVELOPER 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). These facilities may have been constructed as part of AD1-118. This includes, but is not limited to:

- Circuit breakers and associated equipment located between the high side of the GSU 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, and Supervisory Control and Data Acquisition (SCADA) and telecommunications equipment to comply with the TO's Applicable Technical Requirements and Standards.

B. Transmission Owner Facilities Study Results

The following is a description of Transmission Owner facilities for physical interconnection of the proposed AH1-711 project to ATSI transmission system. These facilities shall be designed according to FirstEnergy Applicable Technical Requirements and Standards. Once built, ATSI will own, operate, and maintain these Facilities.

1. TRANSMISSION OWNER INTERCONNECTION FACILITIES (TOIF)

1.1 Troy Energy Substation

Energize and integrate generator interconnection facilities to the transmission system.

- Relay and Controls Scope of Work
 - Integrate interconnection facilities protection and controls to the transmission system.
- Ancillary Scope of Work
 - Project Management
 - Provide project management, coordination, administration, scheduling, material management and project development if required.
 - Revenue Metering
 - Provide support for updates to existing revenue metering.
 - Testing and Commissioning
 - Test and commission all power assets.

2. STAND ALONE NETWORK UPGRADES

None

3. NETWORK UPGRADES

3.1 Lemoyne 345 kV Substation

Review and revise relay settings

- Below Grade Scope of Work:
 - None

- Above Grade Scope of Work:
 - None
- Relay & Control Scope of Work
 - Review and revise relay settings
- Scope of Work Assumptions:
 - TBD
- Ancillary Scope of Work
 - Project Management
 - Provide project management, coordination, administration, scheduling, material management and project development if required.
 - Information Technology
 - None
 - Testing and Commissioning
 - Testing and commissioning services as required for revised relay settings.

4. Other Scope of Work

4.1 Provide support for updates to the existing Project Developer-Owned revenue metering

5. MILESTONE SCHEDULE FOR COMPLETION OF ATSI WORK

Facilities outlined in this report are estimated to take 9 months to construct, from the time the Generation Interconnection Agreement is fully executed. This schedule 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
Preliminary Engineering	1	2
Detailed Engineering	3	8
Siting, Permitting & Real Estate	-	-
Equipment Delivery	-	-
Construction	8	9
Testing and Commissioning	9	9

6. ASSUMPTIONS IN DEVELOPING SCOPE/COST/SCHEDULE

6.1 Scope Assumptions:

- Project Developer is responsible for making all arrangements for electric distribution service (if required) for its generation station. No costs or schedule are included herein.

6.2 Cost Estimate Assumptions:

- The cost estimates provided for this project were developed as of February 11, 2026, based upon current market conditions. Hence, they are subject to significant changes in the event that project implementation is delayed. Notwithstanding the cost estimates from this report being used in the Generator Interconnection Agreement for the related project, ATSI reserves the right to re-evaluate and provide a more accurate cost estimate during the implementation phase of the project. In accordance with section 217 of the Open Access Transmission Tariff, the Project Developer will be responsible for 100 percent of the actual costs of the facilities required to accommodate its Interconnection Request.
- ATSI reserves the right to charge the Project Developer operation and maintenance expenses to maintain the Project Developer attachment facilities, including metering facilities, owned by ATSI. These costs will be specified in the Generator Interconnection Agreement.

6.3 Schedule Assumptions:

- This schedule assumes that all issues covered by the “Environmental, Real Estate and Permitting Issues” section of this document are resolved. Construction cannot begin until after all applicable permits and/or easements have been obtained.
- ATSI’s ability to support this schedule also depends on the feasibility of taking the required outages to support construction. Outages that are determined to negatively impact system reliability or cause congestion may be delayed or denied, at any time, even if they are submitted on time based on the Outage Submittal Rules in section 4.2.1 of PJM Manual 03. This includes, but is not limited to, outages requested between the months of June and September, as well as January and March, which typically get denied due to summer and winter peak conditions. Therefore, the construction schedule will be adjusted as needed to accommodate any outage restrictions that have been identified by ATSI or the Transmission Provider.

7. REVENUE METERING REQUIREMENTS

Revenue metering equipment is owned, operated, and maintained by the Project Developer.

Transmission Owner’s Revenue Metering Requirements may be found in the FirstEnergy Corporation Requirements for Transmission Connected Facilities document which can be found on the PJM website at:

<https://pjm.com/planning/design-engineering/to-tech-standards/private-firstenergy>

These requirements are in addition to any metering required by PJM.

Transmission Owner will obtain real-time, site-specific, generation data from PJM, via the required communication link from Project Developer to PJM. Transmission Owner will work with PJM and Project Developer to ensure the generation data provided to PJM meets Transmission Owner's requirements.

8. LAND REQUIREMENTS FOR INTERCONNECTION SUBSTATION

Not Applicable

9. APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS

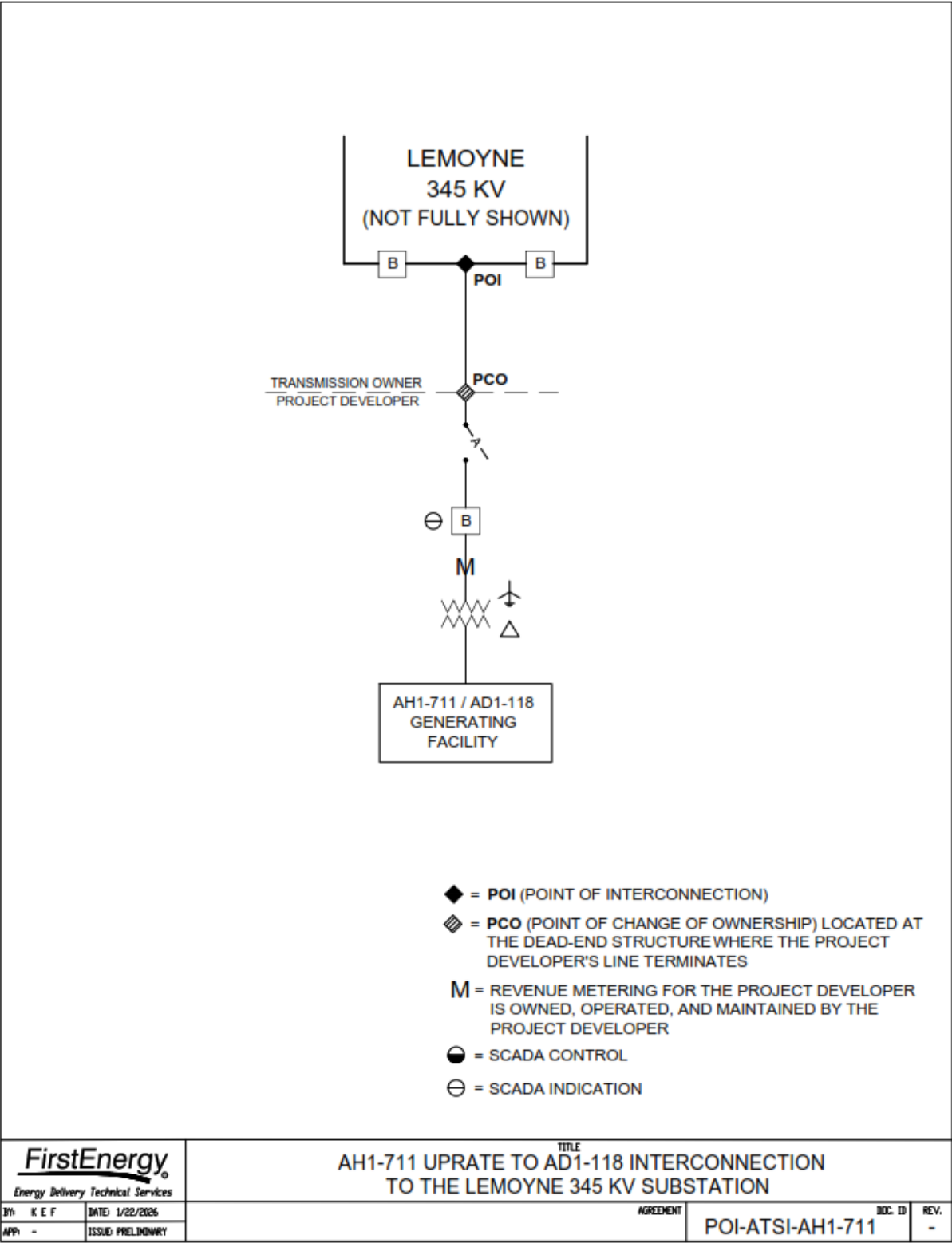
The [Requirements for Transmission Connected Facilities](#), Revision 7, dated January 27, 2026, shall apply.

10. ENVIRONMENTAL AND PERMITTING

Not Applicable

C. APPENDICES

ATTACHMENT #1: SINGLE LINE DIAGRAM FOR THE PHYSICAL INTERCONNECTION



ATTACHMENT #2: PROTECTION SCOPE

Description:

- AH1-711 is an uprate to the existing AD1-118 generating facility.
- Update terminal end relay settings.

FE System Upgrades

- Revise 345 kV line relay settings on exit to Troy Energy, review customer design drawings and relay settings.
- Existing Troy Energy plant to connect to existing 345 kV ring bus position at Lemoyne sub. Developer must upgrade their local substation to have a single 345 kV interconnection breaker (presently uses non-standard four)

Lemoyne Substation

- Review line relay settings on the line exit to Troy Energy, update if necessary

Troy Energy Substation (Developer-Owned)

- Review customer line relay settings, review and approve 345 kV design changes.