

Transmission Expansion Advisory Committee – FirstEnergy (ATSI) Supplemental Projects

August 4, 2026

Need

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

Need Number: ATSI-2026-058
Process Stage: Need Meeting 08/04/2026
Project Driver: Customer Service

Specific Assumption References:

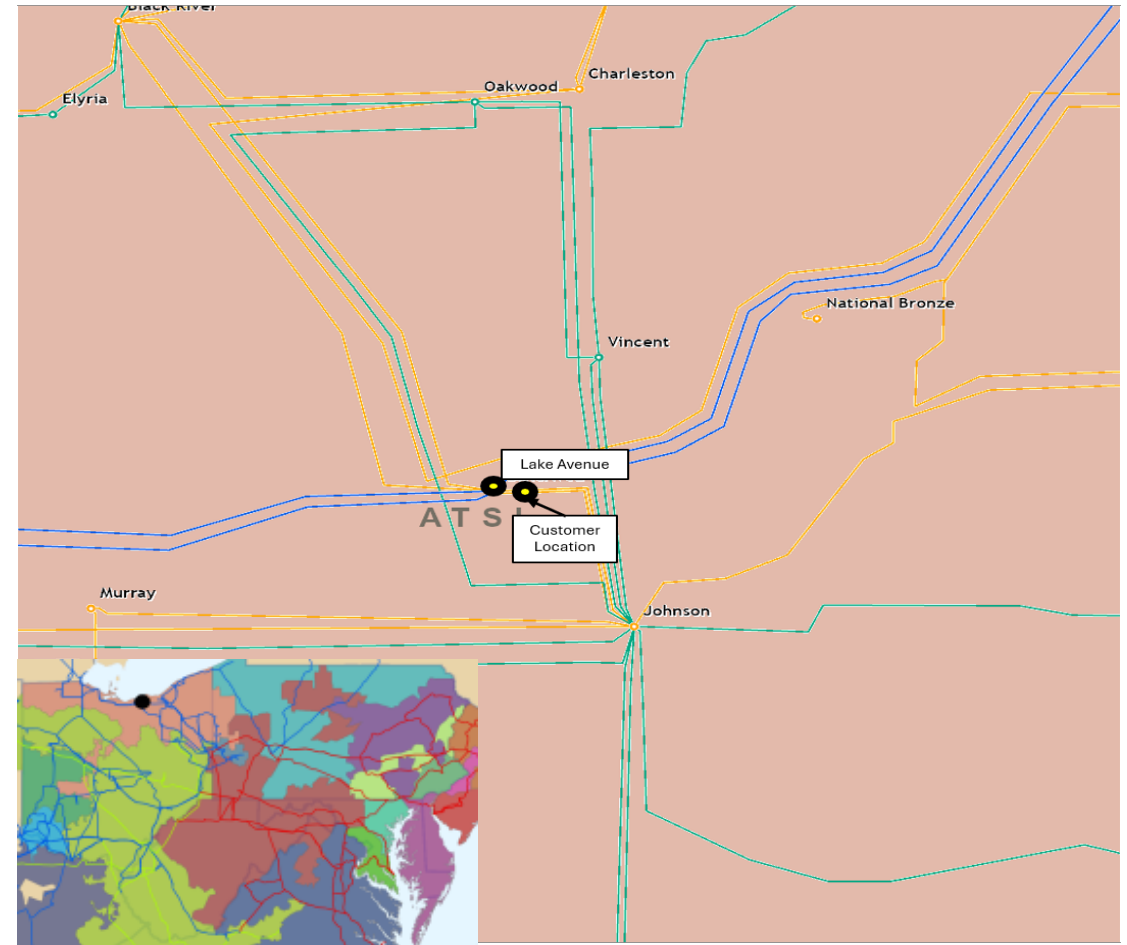
New Customer connection request will be evaluated based on FirstEnergy's "Requirements for Transmission Connected Facilities" document and FirstEnergy's "Transmission Planning Criteria" document

Problem Statement:

New Customer Connection - A Customer has requested a new 138 kV delivery point near the Lake Avenue Substation. The anticipated load of the new customer connection is 200 MVA. The request is approximately 0.3 miles from Lake Avenue Substation.

- Initial Load (2030): 50 MVA
- Expected Load (2031): 200 MVA
- Ultimate Load (2031): 200 MVA

Requested in-service date is 07/15/2030.



Solution

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

Need Number: ATSI-2026-048
Process Stage: Solution Meeting TEAC 08/04/2026
Previously Presented: Need Meeting 07/07/2026
Project Driver: Operational Flexibility and Efficiency

Specific Assumption References:

System Performance Projects Global Factors

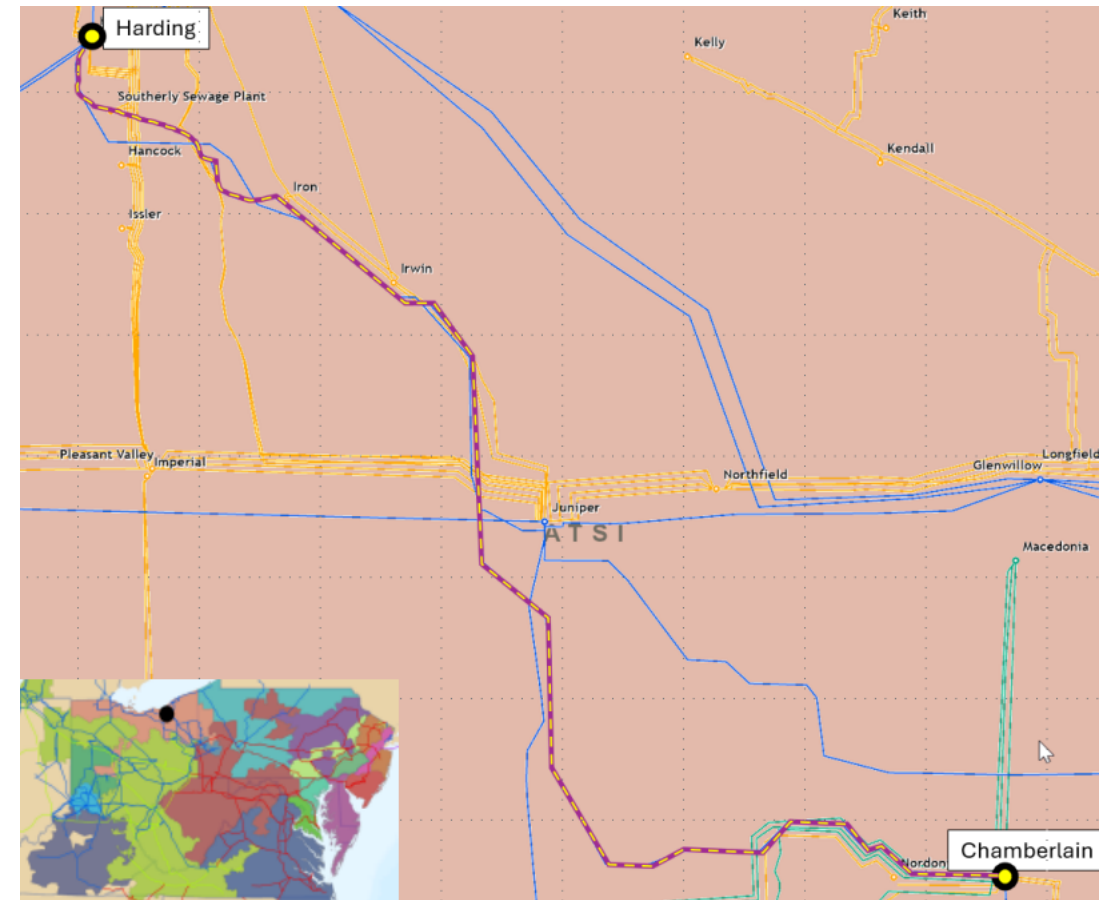
- System reliability and performance
- Substation/line equipment limits

Problem Statement:

FirstEnergy has identified operational constraints when a single breaker is out of service for maintenance on the Chamberlin-Harding 345 kV S-21 Line

The Chamberlin-Harding 345 kV S-21 Line is limited by terminal equipment:

- Normal Ratings: 1534 / 1891 / 1766 / 2143 MVA (SN/SE/WN/WE)
- Single Breaker Outage (B210): 1245 / 1499 / 1560 / 1756 MVA (SN/SE/WN/WE)
- Single Breaker Outage (B31 or B32): 1370 / 1720 / 1766 / 2064 MVA (SN/SE/WN/WE)



Need Number: ATSI-2026-048
Process Stage: Solution Meeting TEAC 08/04/2026

Proposed Solution:

- At Chamberlin Station, replace one circuit breaker, disconnect switches, and substation conductor.
- At Harding Station, replace disconnect switches.

Transmission Line Ratings: Chamberlin-Harding 345 kV S-21 Line:

- Before Proposed Solution: 1534 / 1891 / 1766 / 2143 MVA (SN/SE/WN/WE)
- After Proposed Solution: 1534 / 1891 / 1766 / 2143 MVA (SN/SE/WN/WE)

Single breaker open ratings:

- Before Proposed Solution: 1245 / 1499 / 1560 / 1756 MVA (SN/SE/WN/WE)
- After Proposed Solution: 1534 / 1891 / 1766 / 2143 MVA (SN/SE/WN/WE)

Alternatives Considered:

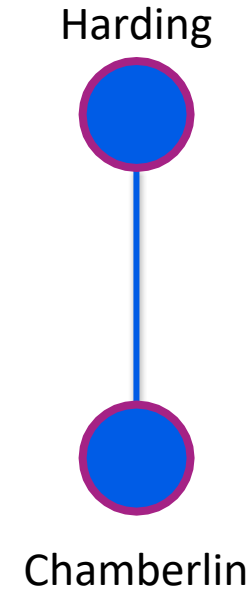
Maintain equipment in existing condition with operational constraints under maintenance scenarios

Estimated Project Cost: \$0.91M

Projected In-Service: 12/11/2026

Project Status: Conceptual

Model: 2025 RTEP for 2030 Summer (50/50)



Legend	
500 kV	
345 kV	
230 kV	
138 kV	
115 kV	
69 kV	
46 kV	
34.5 kV	
23 kV	
New	

Changes to the Existing Supplemental Projects



s2237.2 is Posted in the 2021 local plan. Originally presented as need on 11/22/2019 (ATSI-2019-082), and solution 11/04/2020 TEAC meeting.

Original Proposed Solution Presented on 11/04/2020:

- Construct a new 345 kV four breaker ring bus.
- De-energize approx. 1.0 mile of the Dowling-Fulton 345 kV line.
- Construct 8.7 miles of 345 kV line to connect the Dowling 345 kV line into the new 345 kV station with 954 ACSR 45/7 bundled (2 conductors per phase). New 345 kV line to be built and share structures with the Delta-Wauseon 138 kV line and Delta – Fulton 138 kV line.
- Replace the wave trap at Dowling 345 kV line to ensure the Dowling-New 345 kV station 345 kV transmission line is the limiting element.
- Re-terminate the Fulton 345 kV line that serves North Star Steel Sydney into the new 345 kV station.
- Provide two feeds from the new 345 kV station to North Star Steel Sydney with 954 ACSR 45/7 bundled (2 conductors per phase).

Revised Solution:

- Model North Star Sydney Steel Substation at Melbourne Substation due to substation proximity.

Transmission Line Ratings:

Dowling-Melbourne 345 kV Station Rating:

- 1542/1878 MVA SN/SE, 1746/2225 MVA WN/WE

Fulton-Melbourne 345 kV Station Rating:

- 1542/1878 MVA SN/SE, 1746/2225 MVA WN/WE

Reason for Scope Change:

- Model change is to align with FirstEnergy modeling standards due to proximity of Melbourne Substation to customer.

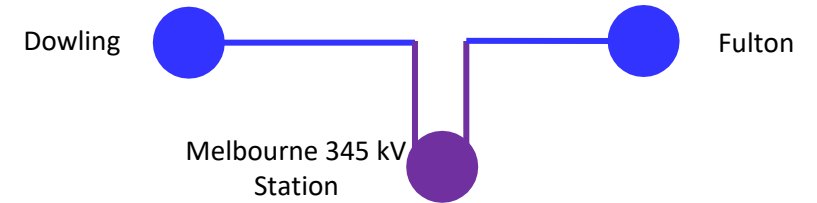
Estimated Project Cost: \$67M

Projected In-Service Date: 6/1/2024 5/14/2027

Status: Conceptual

Model: 2025 RTEP for 2030 Summer (50/50)

ATSI Transmission Zone Supplemental s2237.2 Scope Change



Legend	
500 kV	
345 kV	
138 kV	
69 kV	
34.5 kV	
23 kV	
New	

High Level M-3 Meeting Schedule

Assumptions

Activity	Timing
Posting of TO Assumptions Meeting information	20 days before Assumptions Meeting
Stakeholder comments	10 days after Assumptions Meeting

Needs

Activity	Timing
TOs and Stakeholders Post Needs Meeting slides	10 days before Needs Meeting
Stakeholder comments	10 days after Needs Meeting

Solutions

Activity	Timing
TOs and Stakeholders Post Solutions Meeting slides	10 days before Solutions Meeting
Stakeholder comments	10 days after Solutions Meeting

Submission of Supplemental Projects & Local Plan

Activity	Timing
Do No Harm (DNH) analysis for selected solution	Prior to posting selected solution
Post selected solution(s)	Following completion of DNH analysis
Stakeholder comments	10 days prior to Local Plan Submission for integration into RTEP
Local Plan submitted to PJM for integration into RTEP	Following review and consideration of comments received after posting of selected solutions



Revision History

07/24/2026– V1 – Original version posted to pjm.com