

Subregional RTEP Committee – Western FirstEnergy Supplemental Projects

ATSI Transmission Zone

September 18, 2026

Needs

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-2026-059
Process Stage: Need Meeting 09/18/2026
Project Driver: Customer Service

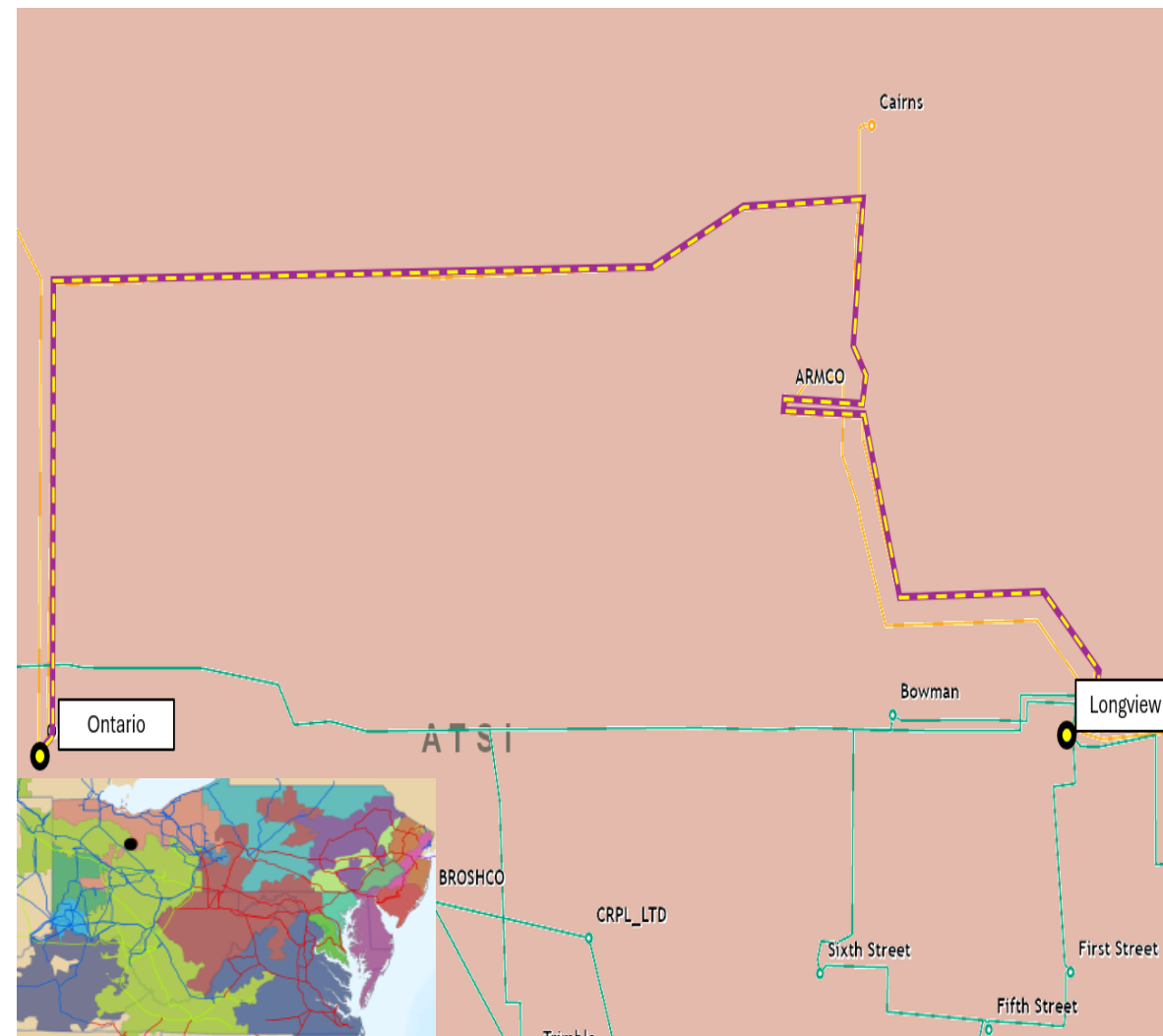
Specific Assumption References:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - A new customer requested 138 kV service for load of approximately 10 MW near the Longview - Ontario 138 kV Line. The request is approximately 5.5 miles from Ontario Substation.

Requested in-service date is 11/19/2027.



Need Number: ATSI-2026-060
Process Stage: Need Meeting 09/18/2026
Project Driver: Customer Service

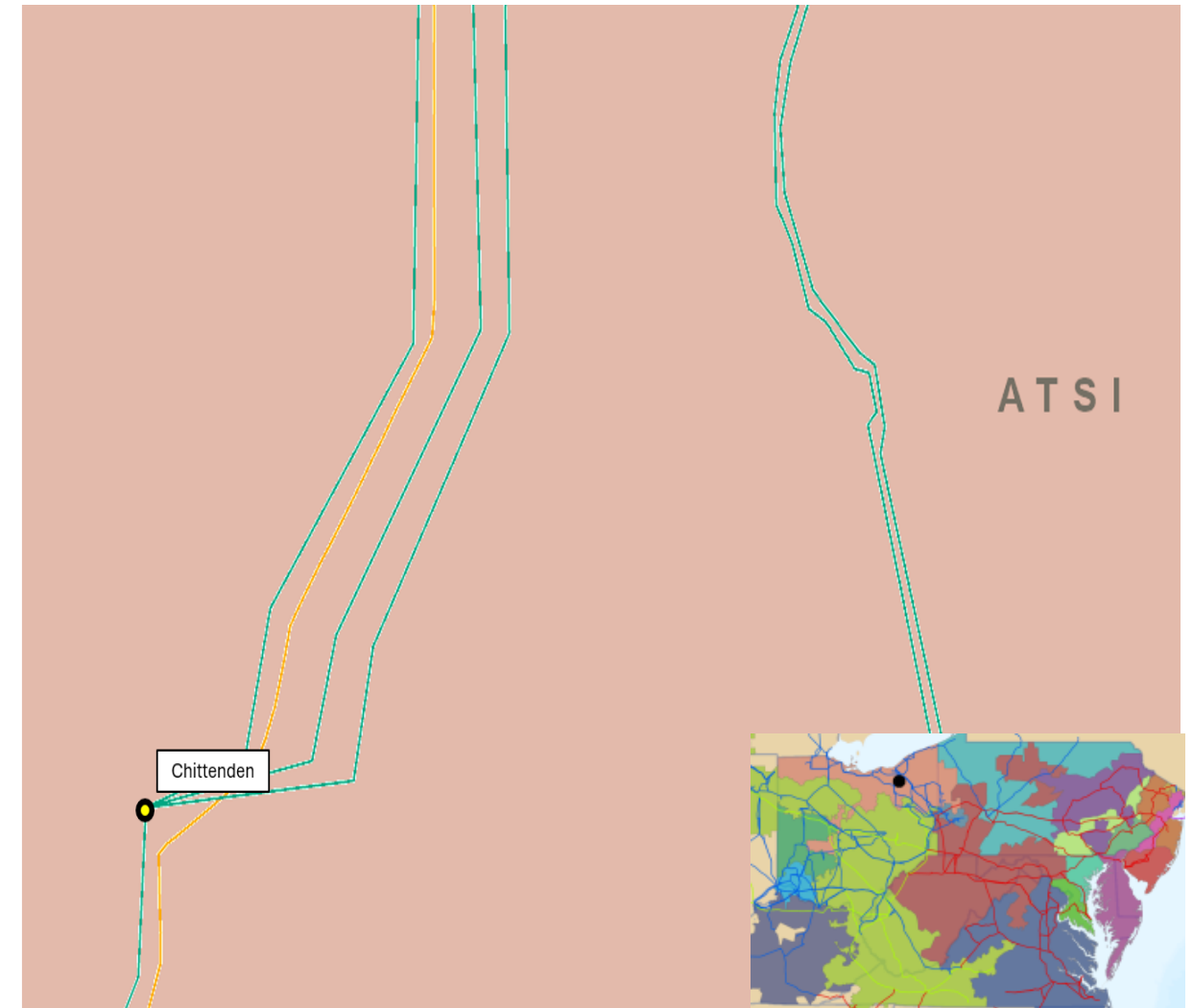
Specific Assumption References:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - a new customer requested 69 kV service for load of approximately 22 MW near the Chittenden Substation. The request is at the Chittenden Substation.

Requested in-service date is 11/19/2027.



Need Number: ATSI-2026-061
Process Stage: Need Meeting 09/18/2026
Project Driver: Customer Service

Specific Assumption References:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - A new customer requested 138 kV service for load of approximately 60 MW near the Fowles - Fox 138 kV Q-12 Line. The request is approximately 1 mile from Ford Brookpark Substation.

Requested in-service date is 1/2/2029.



Solutions

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-2024-067
Process Stage: Solution Meeting 09/18/2026
Previously Presented: Need Meeting 08/16/2024
Project Driver: Equipment Condition/Performance/Risk

System Performance Projects Global Factors

- System reliability and performance
- Substation/line equipment limits

System Condition Projects

- Substation Condition Rebuild/Replacement

Upgrade Relay Schemes

- Obsolete and difficult to repair communication equipment (DTT, Blocking, etc.)
- Communication technology upgrades

Problem Statement:

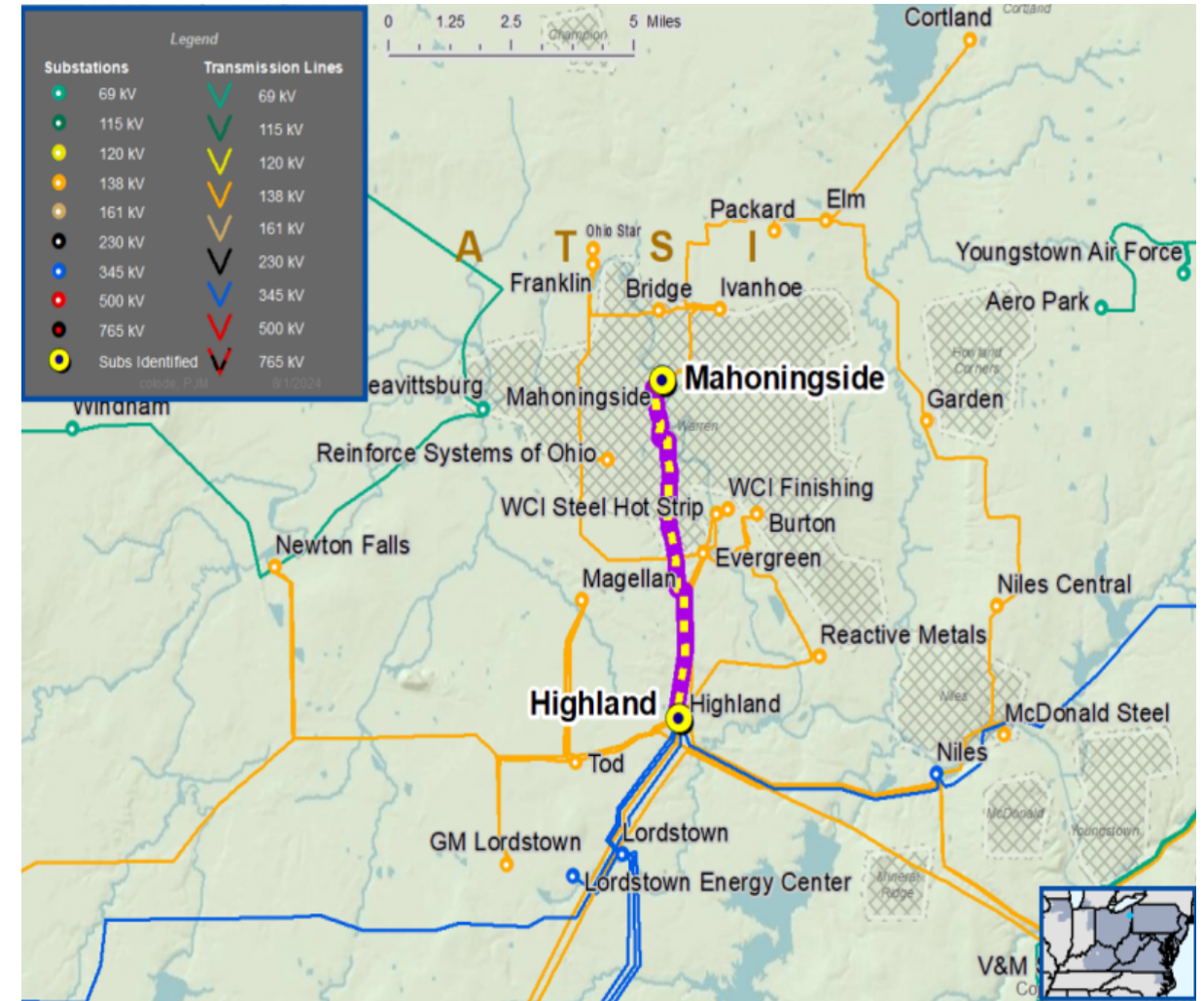
- FirstEnergy has identified protection schemes using a certain vintage of relays and communication equipment that have a history of misoperation.
- Proper operation of the protection scheme requires all the separate components perform adequately during a fault.
- In many cases the protection equipment cannot be repaired due to a lack of replacement parts and available expertise in the outdated technology.
- The existing control building at Highland Substation is congested. There is not sufficient space for additional panel upgrades.
- Transmission line ratings are limited by terminal equipment.

Transmission Line / Substation Locations: Highland – Mahoningside 138 kV Line

Existing Line Rating MVA (SN / SE / WN / WE): 200 / 236 / 226 / 236

Existing Conductor Rating MVA (SN / SE / WN / WE): 200 / 242 / 226 / 286

SRRTEP Committee: Western – FirstEnergy Supplemental 09/18/2026



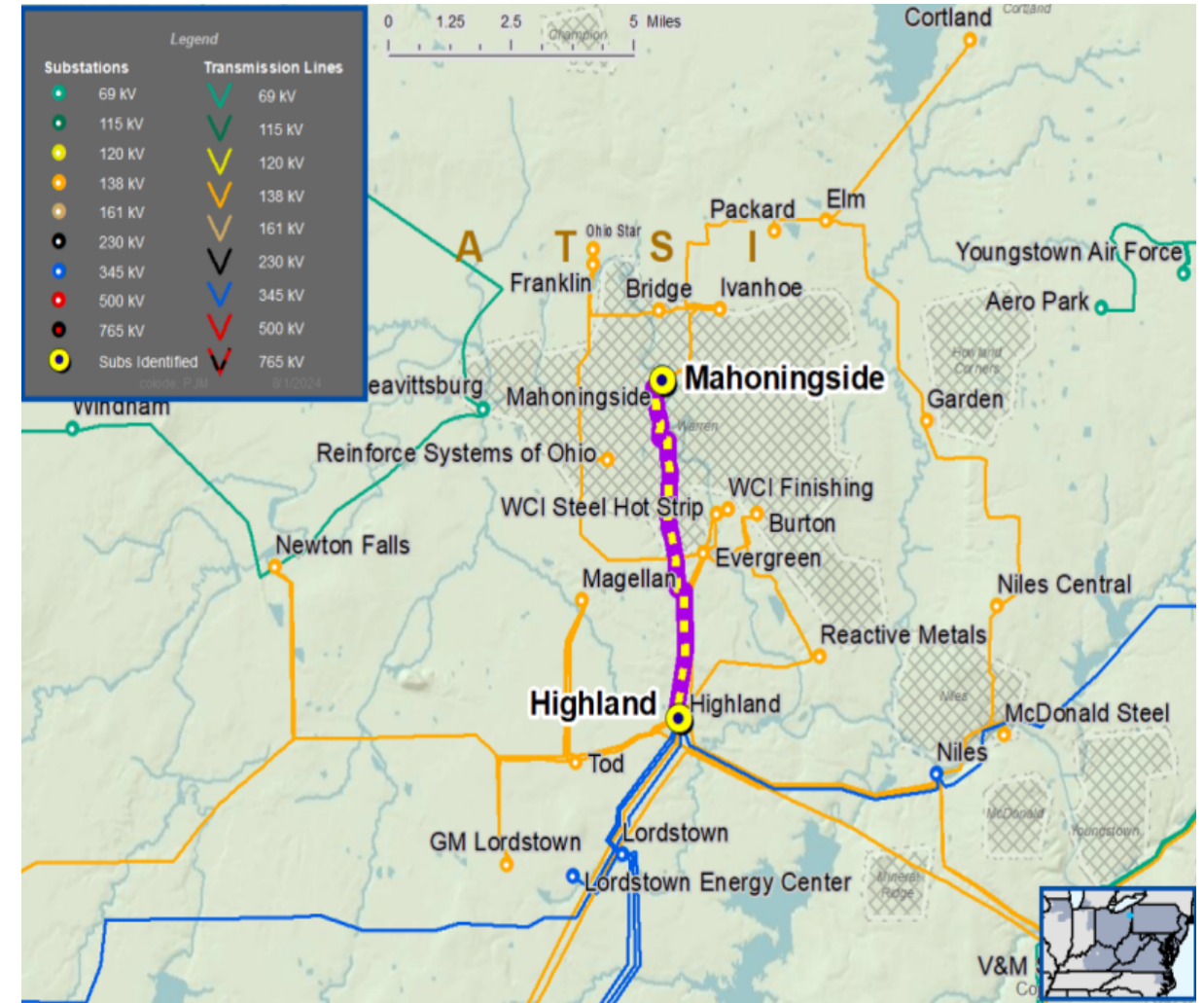
Need Number: ATSI-2024-067
Process Stage: Solution Meeting 09/18/2026

Proposed Solution:
 Replace the existing control building at Highland Station with a new large package control enclosure (PCE)

Alternatives Considered:
 Maintain Station in existing condition.

Transmission Cost Estimate: \$34.05 M
Projected In-Service: 04/23/2029
Project Status: Conceptual
Model: 2025 RTEP model for 2030 Summer & Winter (50/50)

ATSI Transmission Zone M-3 Process Highland Station Control Building



Appendix

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

09/xx/2026– V1 – Original version posted to pjm.com