

Subregional RTEP Committee – Western FirstEnergy Supplemental Projects

April 11, 2025

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-2025-003

Process Stage: Need Meeting 04/11/2025

Project Driver: Equipment Material Condition, Performance & Risk
Infrastructure Resilience
Operational Flexibility and Efficiency

Specific Assumption References:

System reliability and performance

Load at risk in planning and operational scenarios

Problem Statement:

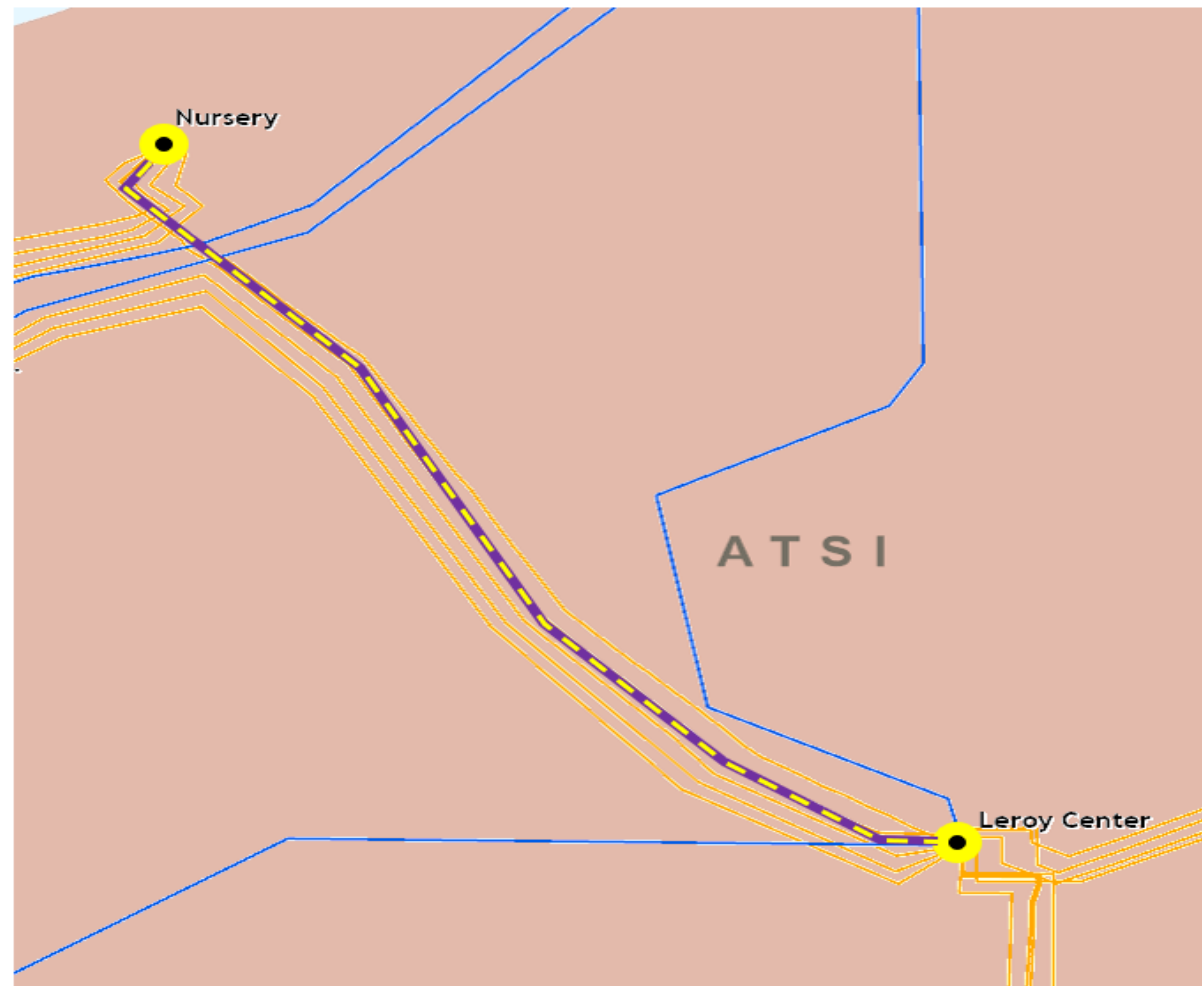
The Grand River – Leroy Center No. 1 138 kV Line is approximately 11 miles long and supplies three wholesale delivery points (including Nursery Substation.)

The three wholesale delivery points serve approximately 29,400 customers and 135 MW.

Based on the 2024 Series 2029 RTEP Summer Case, an N-1 contingency results in the outage of the Nursery No. 1 and No. 3 138-36 kV transformers due to a shared a common bus. The Nursery No. 2 138-36 kV transformer consequentially loads to 145% of its Summer Emergency (SE) rating.

Existing Rating: 57 / 63 / 57 / 63 MVA (SN/SE/WN/WE)

The 138 kV Breaker Q3T at Nursery is 77 years old with increasing maintenance concerns due to compressor issues, deteriorated operating mechanisms and increasing maintenance trends.



Need Number: ATSI-2025-013

Process Stage: Need Meeting 04/11/2025

Project Driver: Customer Service

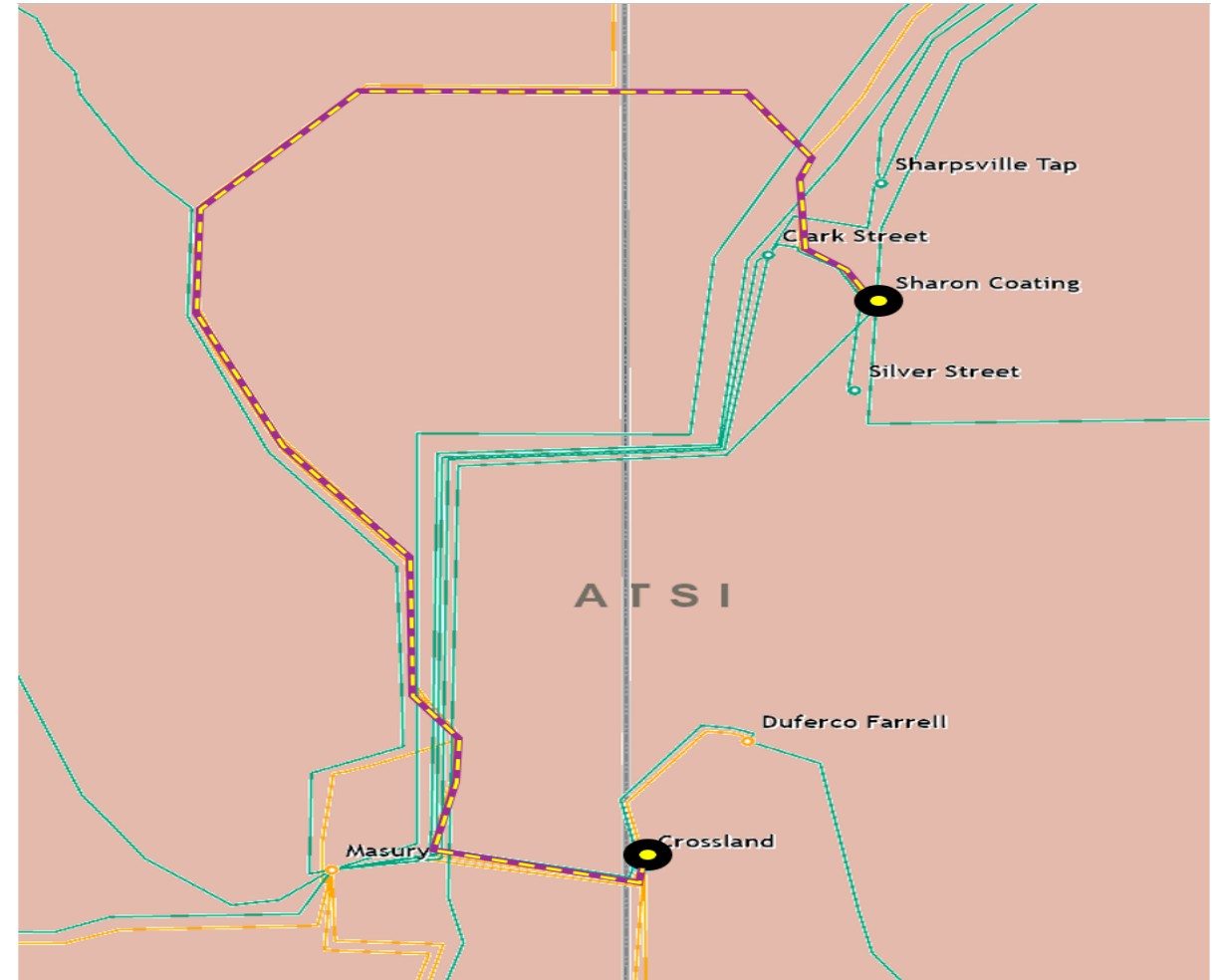
Specific Assumption References:

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 requested a new 138 kV delivery point near the Crossland - Sharon Z-112 138 kV Line. The anticipated load of the new customer connection is 80 MVA. The requested service location is approximately 6 miles from Crossland Substation.

Requested in-service date is 7/30/2027



Need Number: ATSI-2025-014

Process Stage: Need Meeting 04/11/2025

Project Driver: Customer Service

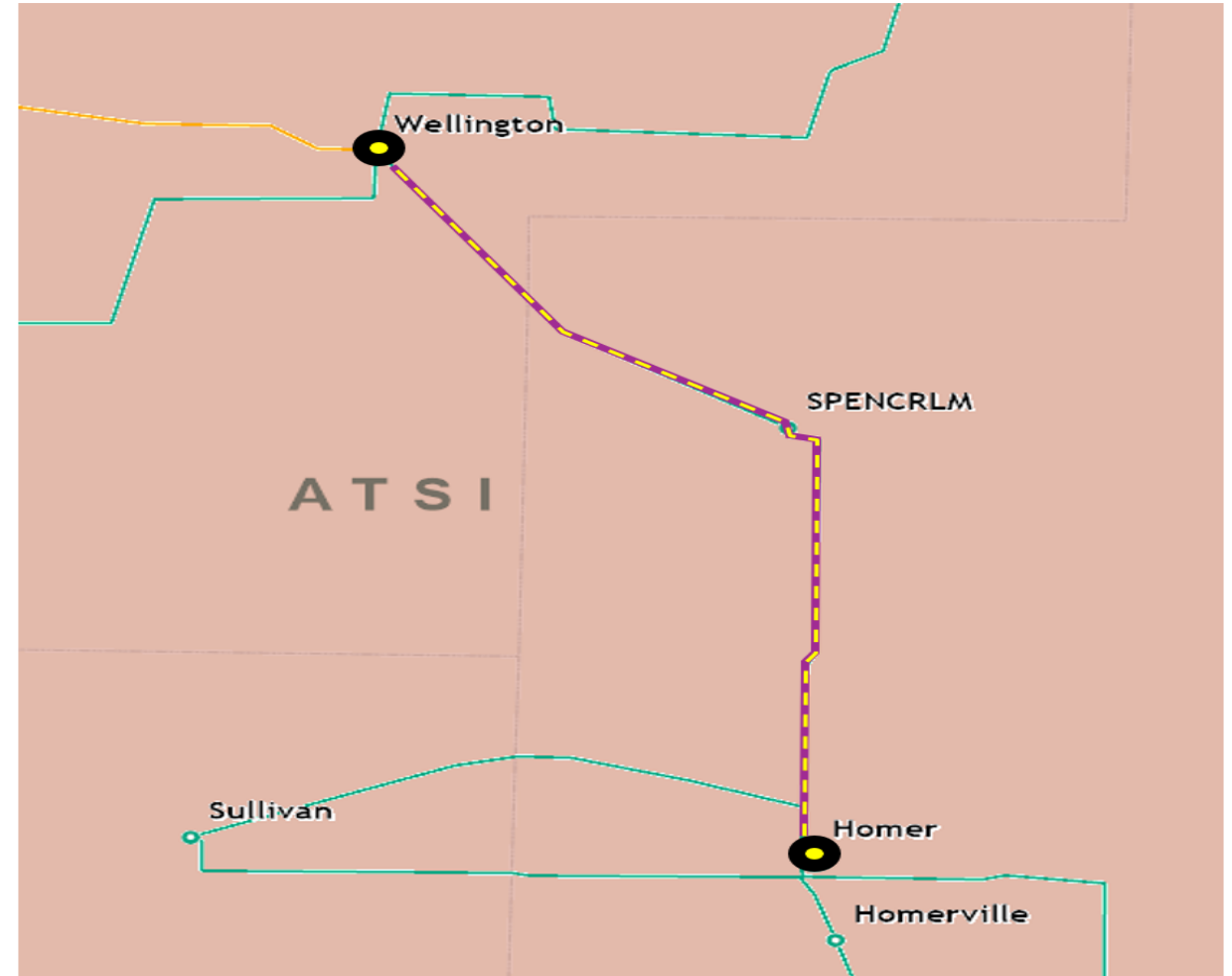
Specific Assumption References:

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 requested a new 69 kV delivery point near the Homer - Wellington 69 kV Line. The anticipated load of the new customer connection is 6.5 MVA. The requested service location is approximately six miles from Homer Substation.

Requested in-service date is 5/14/2027



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

04/01/2025– V1 – Original version posted to pjm.com