



Sub Regional RTEP Committee PJM West - ATSI

April 23, 2019

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



ATSI Transmission Zone M-3 Process

Warrendale (Pine) 69 kV Line Rebuild

Need Number: ATSI-2019-051

Process Stage: Solution Meeting - 4/23/2019

Previously Presented: Needs Meeting – 02/20/2019

Supplemental Project Driver:

Equipment Material Condition, Performance, and Risk

Specific Assumption Reference:

Assessment of existing transmission lines for equipment characteristics that are at, or beyond their existing service life, or contain components that are obsolete.

- Aged or deteriorated wood pole transmission line structures.
- Negatively impact customer outage frequency and/or durations.
- Demonstrate an increasing trend in maintenance findings and/or costs

Problem Statement:

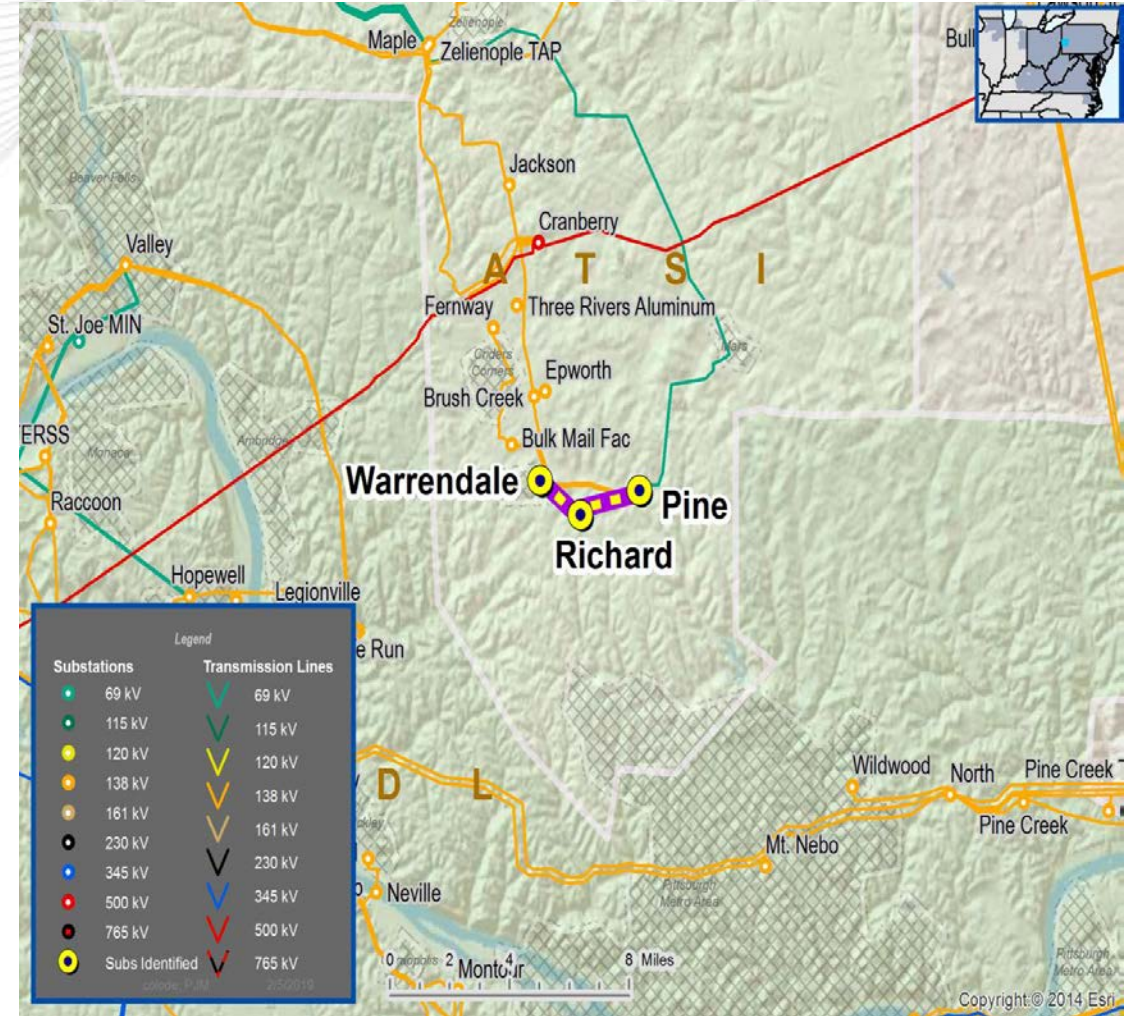
Pine-Warrendale 69 kV Condition Assessment

Warrendale-Richard segment of the line (approximately 3.6 miles of the 6.42 mile line) has been identified as having obsolete and deteriorated equipment.

- Damaged conductor identified along the line.
- Construction is mostly 42 year old construction; poor inspection results.

Customers and load at risk: 6,135 customers and 22 MWs of load.

The Pine-Warrendale 69 kV line has experienced 4 outages in the past five years.



Need Number: ATSI-2019-051

Process Stage: Solution Meeting - 4/23/2019

Proposed Solution:

Warrendale (Pine) 69 kV Line Rebuild

- Rebuild/reconductor approximately 3.6 miles of the existing Warrendale (Pine) 69 kV Line (Warrendale-Richard line segment).
- Replace four line switches (A-157, A-218, A-6071, and A-6072) due to age and obsolescence.

Estimated Project Cost: \$7.5 M

Transmission Line Ratings:

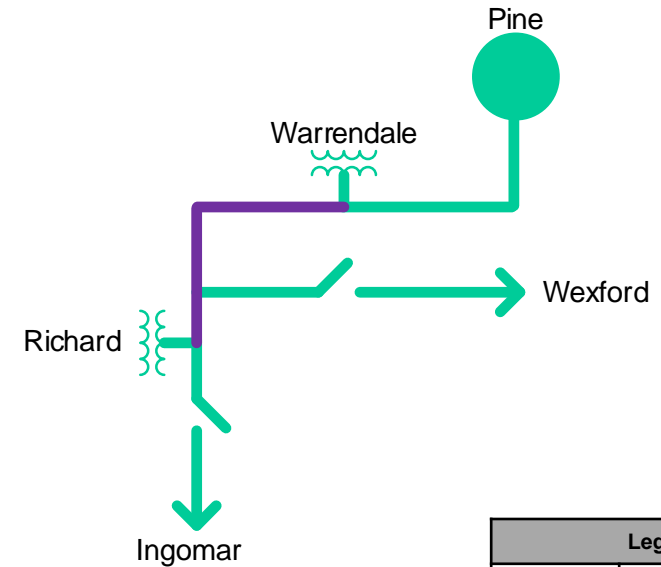
Existing line rating: 133 MVA SN / 163 MVA SE

New line rating: 139 MVA SN / 169 MVA SE

Alternatives Considered:

- Maintain existing condition and elevated risk of failure

Projected In-Service: 3/15/2020



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

Need Number: ATSI-2019-052

Process Stage: Solution Meeting – 04/23/2019

Previously Presented: Needs Meeting – 02/20/2019

Project Driver:

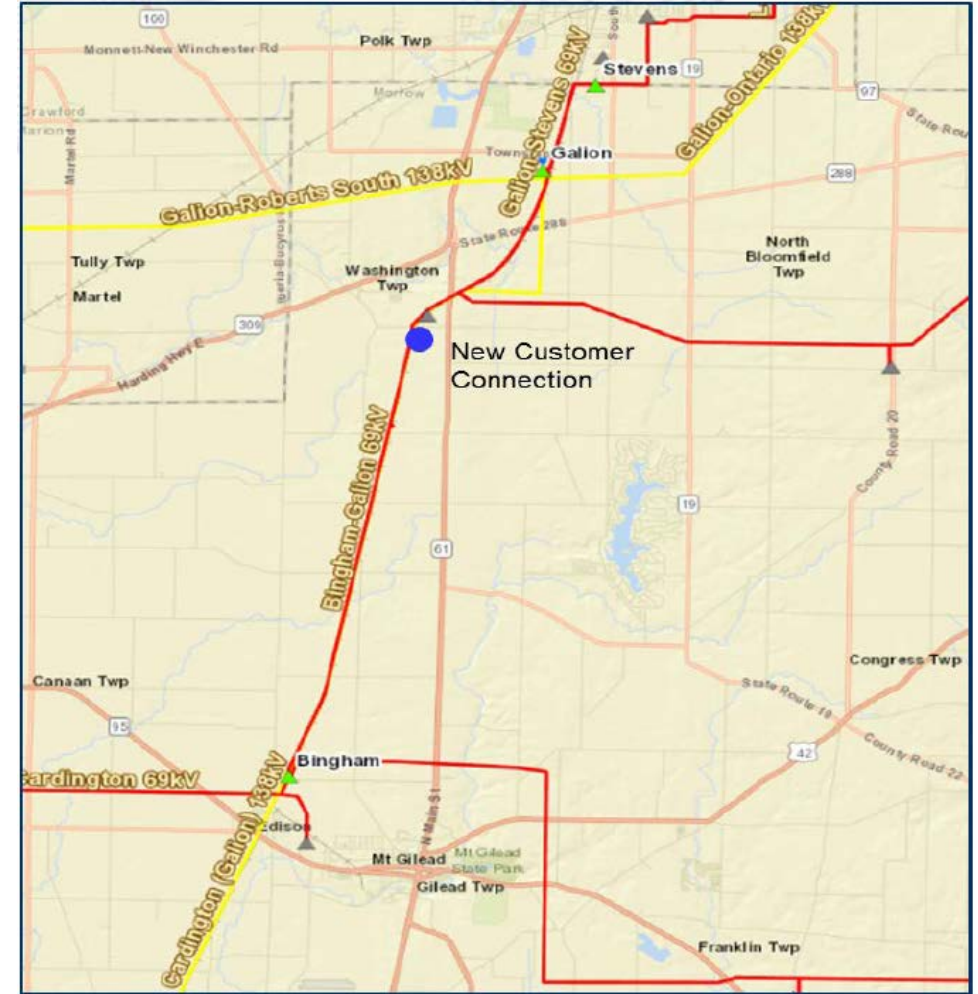
Customer Service – Emergent

Specific Assumption Reference:

New customer connection request evaluated per FirstEnergy’s “Requirements for Transmission Connected Facilities” document and “Transmission Planning Criteria” document.

Problem Statement:

New Customer Connection - A customer requested 69 kV service for a load of approximately 1.3 MVA near the Bingham – Galion 69 kV Line.



Need Number: ATSI-2019-052

Process Stage: Solution Meeting – 04/23/2019

Potential Solution:

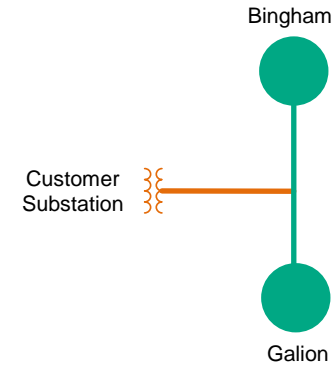
- Tap the Bingham – Galion 69 kV Line and extend a 69 kV Line (approximately 0.1 miles) to the proposed customer site.
- Install in-line sectionalizing switches at the tap location.
- Replace four (4) transmission structures for the new tap connection.

Estimated Project Cost: \$1.3 M

Alternatives Considered:

A distribution system service connection was considered but capacity was not available for this load.

Projected In-Service: 3/21/2019



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

Next Steps

Questions?



Appendix



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

4/11/2019 – V1 – Original version posted to pjm.com