

Subregional RTEP Committee – Mid-Atlantic FirstEnergy Supplemental Projects Penelec Transmission Zone

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: PN-2024-019

Process Stage: Solution Meeting – SRRTEP-MA – 03/18/2026

Previously Presented: Need Meeting – SRRTEP-MA – 05/16/2024

Project Driver:

Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

System Performance Global Factors

- System reliability/performance
- Line Condition Rebuild/Replacement
- Age/condition of wood pole H-Frame transmission line structures

Problem Statement:

The Corry East – Four Mile Junction 115 kV Line was constructed approximately 56 years ago and is approaching end of life. It is 24.4 miles long with 198 wood H-Frame transmission line structures.

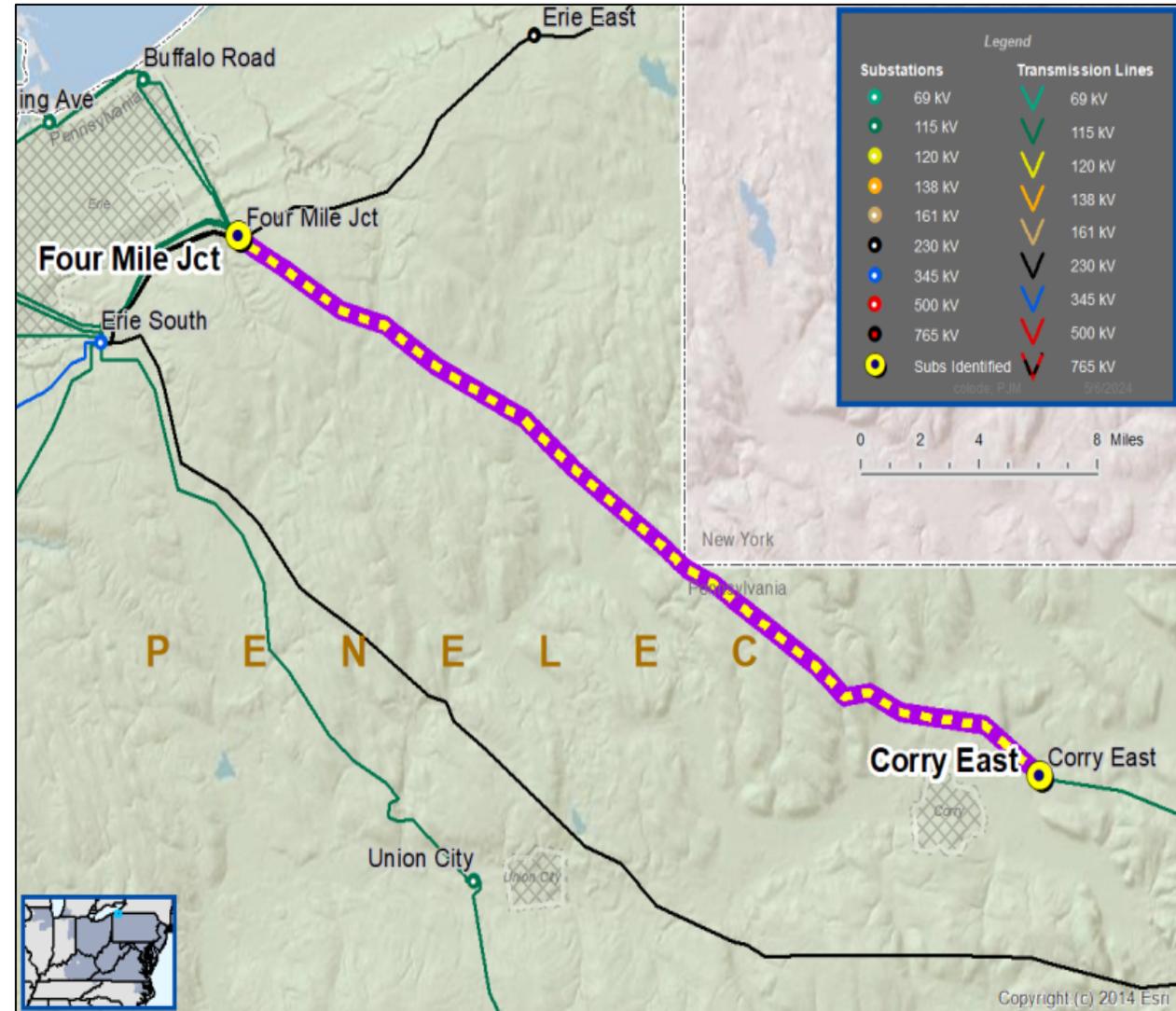
Per recent inspections, the line is exhibiting deterioration. Inspection findings include:

- 68 structures are phase-raised.
- 87 structures require repair for rotten, cracked, or deteriorated wood poles or hardware.
- 84 Structures failed sound test.

In the last five years, this line has incurred six unscheduled sustained outages, three were attributed to line equipment.

Existing Transmission Line Ratings:

- 199 / 241 / 225 / 285 MVA (SN/SE/WN/WE)



Need Number: PN-2024-019

Process Stage: Solution Meeting –SRRTEP-MA – 03/18/2026

Proposed Solution:

Rebuild the Corry East-Four Mile Junction 115 kV (24.3 miles total) with new conductor.

Replace SCCIR at Corry East Substation.

Ratings:

Corry East - Four Mile Junction 115 kV Line

- Before Proposed Solution: 202 / 245 / 228 / 290 MVA (SN/SE/WN/WE)
- After Proposed Solution: 232 / 282 / 263 / 334 MVA (SN/SE/WN/WE)

Alternatives Considered:

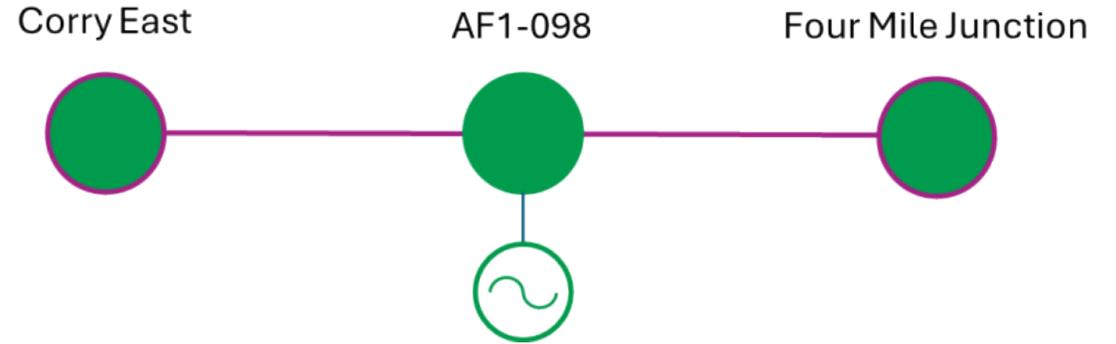
Continue to maintain line in current condition and replace failed equipment as it occurs.

Estimated Project Cost: \$68.82M

Projected In-Service: 12/28/2029

Project Status: Conceptual

Model: 2024 RTEP model for 2029 Summer (50/50)



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

Need Number: PN-2024-023

Process Stage: Solution Meeting – SRRTEP-MA – 03/18/2026

Previously Presented: Need Meeting – SRRTEP-MA – 05/16/2024

Project Driver:

Operational Flexibility and Efficiency

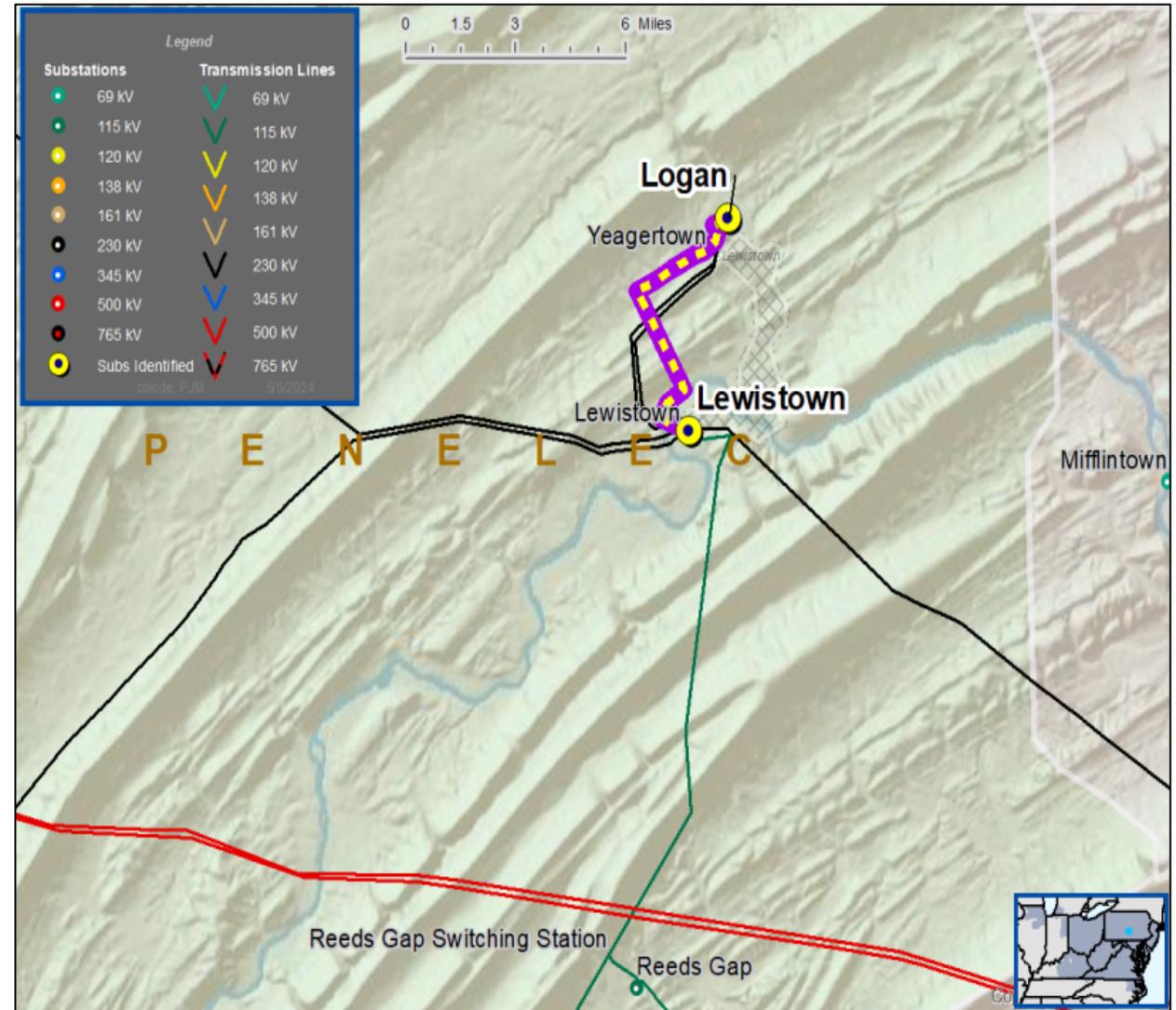
Specific Assumption Reference:

System Performance Projects

- Add/expand bus configuration
- Load at risk in planning and operational scenarios
- Reduce the amount of exposed potential local load loss during contingency conditions
- Reconductor/rebuild transmission lines with three or more terminals

Problem Statement:

There are two three-terminal lines with normally open points between Lewistown Substation and Logan Substation on the 46 kV system in Penelec. These lines have a combined exposure of over 20 miles. Upon multiple N-1-1 losses on these lines, several substations will experience an outage. 3,575 customers and 12 MW of load are at risk due to this configuration.



Need Number: PN-2024-023

Process Stage: Solution Meeting –SRRTEP-MA – 03/18/2026

Proposed Solution:

- Build a new two-mile 46 kV line from the Molly Ring Bus (b3754) and tap the 1LK2 46 kV line southwest of the existing Lewistown - Logan 46 kV 1LK Tap.
- Cut the 46 kV Line between the existing 1LK Tap and the new Molly - 1LK2 Tap 46 kV Line.
- Install a fourth 46 kV circuit breaker in the ring bus at Molly Substation.
- Eliminate normally open and three terminal lines on the 1LK 46 kV circuit between Yeagertown and Lewistown substations.
- Revise relay settings at Lewistown, Logan, Mount Union, Riverside, Warrior Ridge, and Yeagerstown Substation

Ratings:

New Molly - 1LK2 Tap 46 kV Line:

- Before Proposed Solution: N/A
- After Proposed Solution: 32 / 32 / 35 / 35 MVA (SN/SE/WN/WE)

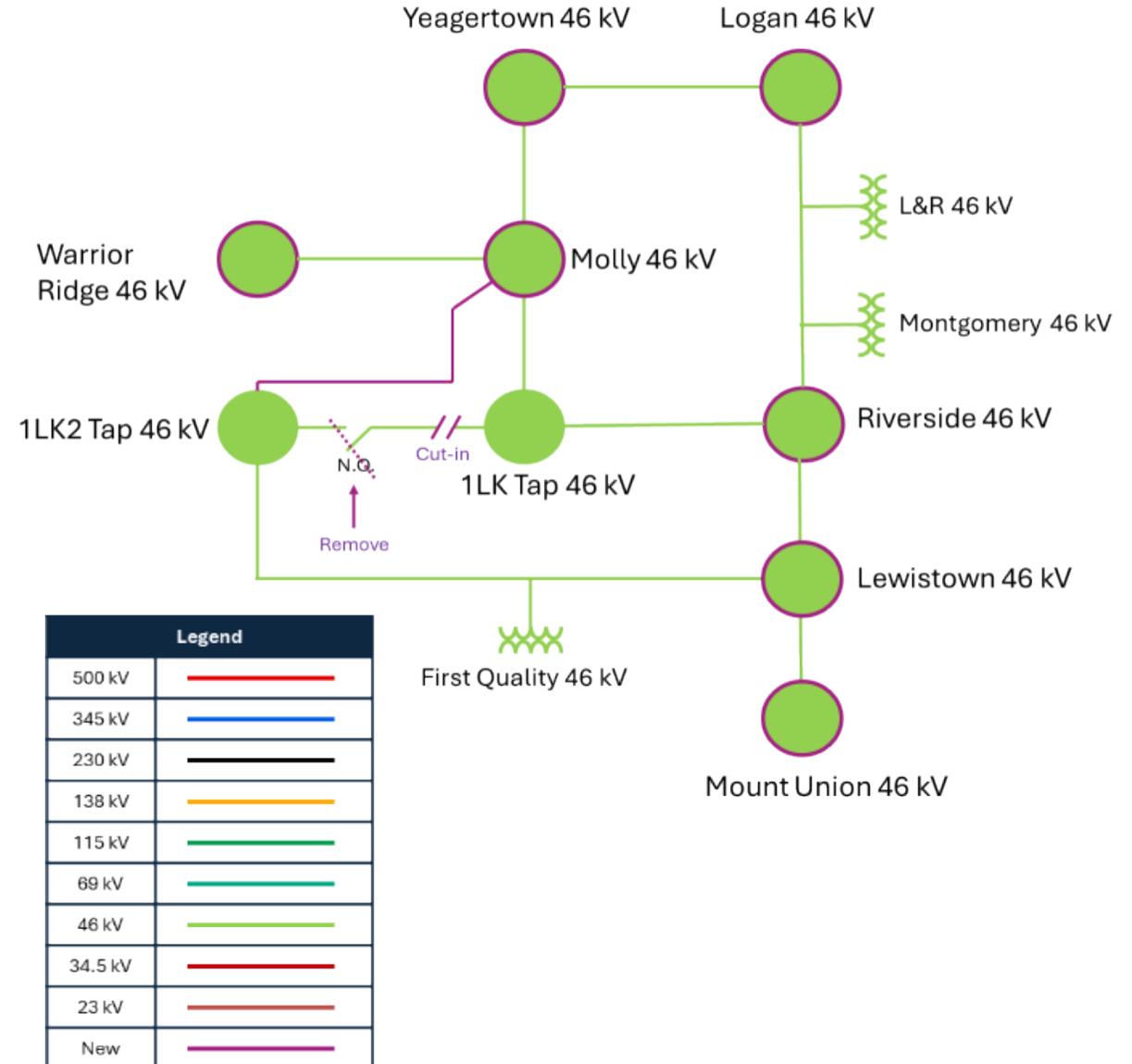
Molly- 1LK Tap 46 kV Line:

- Before Proposed Solution: 32 / 32 / 35 / 35 MVA (SN/SE/WN/WE)
- After Proposed Solution: 32 / 32 / 35 / 35 MVA (SN/SE/WN/WE)

Yeagertown - Molly 46 kV Line:

- Before Proposed Solution: N/A MVA (SN/SE/WN/WE)
- After Proposed Solution: 36 / 43 / 40 / 51 MVA (SN/SE/WN/WE)

Cont'd on next slide...





Ratings: (Cont'd from previous slide)

Lewistown - First Quality 46 kV Line:

- Before Proposed Solution: 93 / 113 / 105 / 134 MVA (SN/SE/WN/WE)
- After Proposed Solution: 93 / 113 / 105 / 134 MVA (SN/SE/WN/WE)

Alternatives Considered:

Maintain existing configuration with elevated risk of service interruption under N-1-1 contingency scenarios.

Estimated Project Cost: \$6.61M
Projected In-Service: 12/31/2027
Project Status: Conceptual
Model: 2024 RTEP model for 2029 Summer (50/50)

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

03/06/2026 – V1 – Original version posted to pjm.com