

Subregional RTEP Committee – Mid-Atlantic FirstEnergy (Penelec) Supplemental Projects

June 13, 2022

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: PN-2022-003

Process Stage: Need Meeting 6/13/2022

Project Driver:

- Equipment material condition, performance and risk
- Operational Flexibility and Efficiency

Specific Assumption Reference:

System Reliability and Performance

- Line Condition Rebuild/Replacement
 - Failure risk, age and condition, obsolescence, operational or design limitations
- Operational Flexibility

Problem Statement:

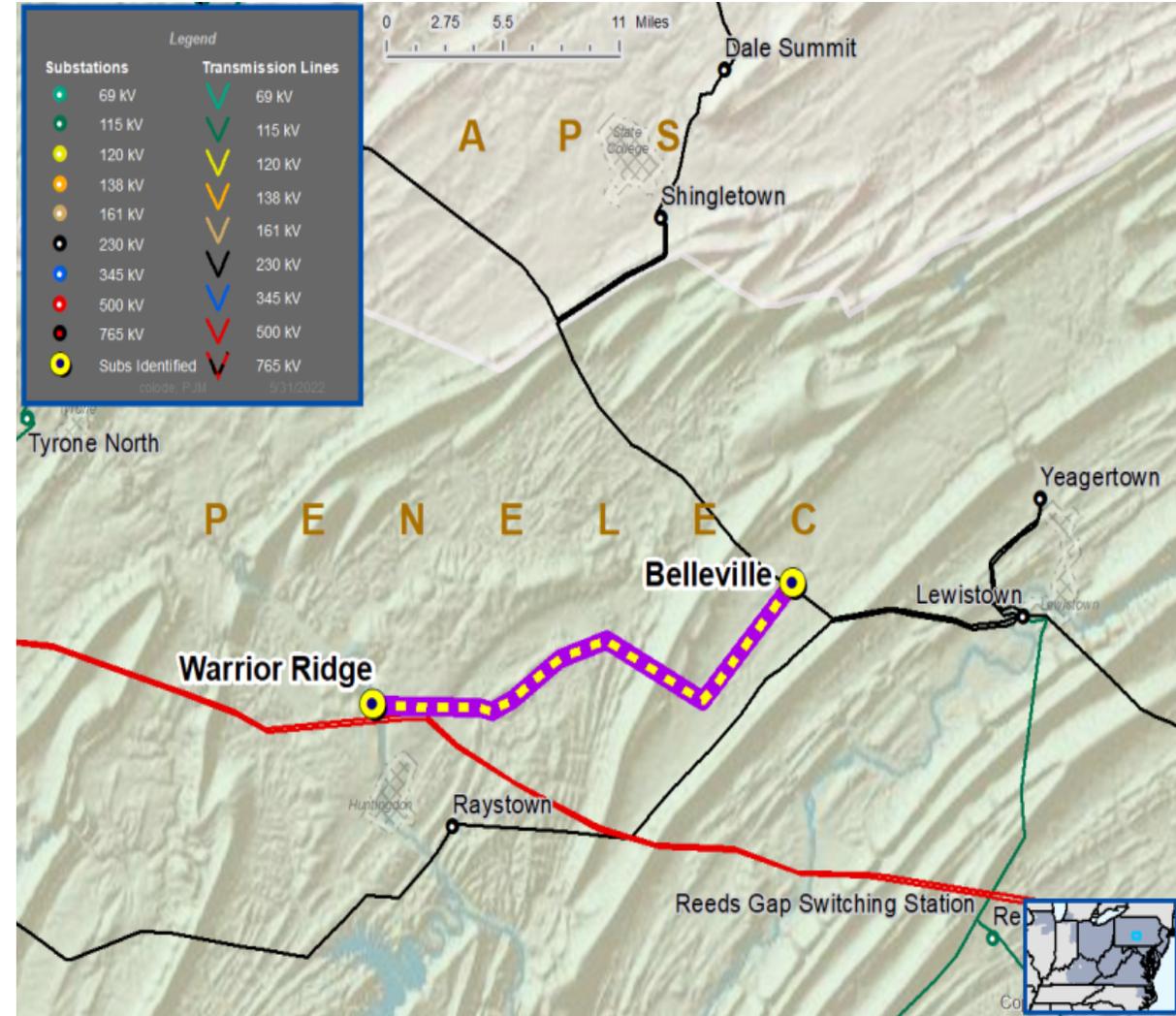
The Belleville – MacLane Tap 46 kV line conductor has been confirmed to be annealed after experiencing a substantial fault condition.

Upon inspection after the fault condition, most of the poles have been found to be in deteriorated condition with broken cross arms, animal damage, and failed sound testing.

FirstEnergy has replaced failed poles on this line section and has executed several emergency repairs of breaks in the annealed conductor.

The line is currently limited by the conductor.

- Existing line rating: 27 / 28 MVA (SN / SE)



Need Number: PN-2019-035

Process Stage: Need Meeting 6/13/2022

Previously Presented

Needs Meeting 7/31/2019

Project Driver:

Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

Line Condition Rebuild/Replacement

- Age/condition of wood pole transmission line structures
- System Performance Projects Global Factors
- Substation/line equipment limits

Problem Statement:

The Piney – Haynie – Grandview – Titusville – Union City – Erie South 115 kV line is exhibiting deterioration.

- Total line distance is approximately 82.3 miles.
- 556 out of 697 structures failed inspection (80% failure rate).
- Failure reasons include age, woodpecker damage, top rot, phase raised, failed sound test, and weatherization.

Transmission line ratings are limited by terminal equipment.

Piney – Haynie 115 kV line (substation conductor, line relaying, line trap, CTs)

- Existing line rating: 147/174 MVA (SN/SE)
- Existing conductor rating: 202/245 MVA (SN/SE)

Haynie – Grandview 115 kV line (substation conductor, line relaying, line trap)

- Existing line rating: 147/174 MVA (SN/SE)
- Existing conductor rating: 202/245 MVA (SN/SE)

~~Union City – Erie South 115 kV line (substation conductor, line relaying)~~

- ~~Existing line rating: 232/282 MVA (SN/SE)~~
- ~~Existing conductor rating: 232/282 MVA (SN/SE)~~



Questions?



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

6/3/2021 – V1 – Original version posted to pjm.com