

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

May 16, 2022

Penelec Projects Scope and Cost Changes

Previously Presented:

- First Read: 3/23/2018
- Second Read: 5/25/2018

Problem Statement:

Operational Flexibility and Efficiency

- Improve operational flexibility during maintenance and restoration efforts.
- Eliminate the simultaneous outages to three or more system elements.

Potential Solution:

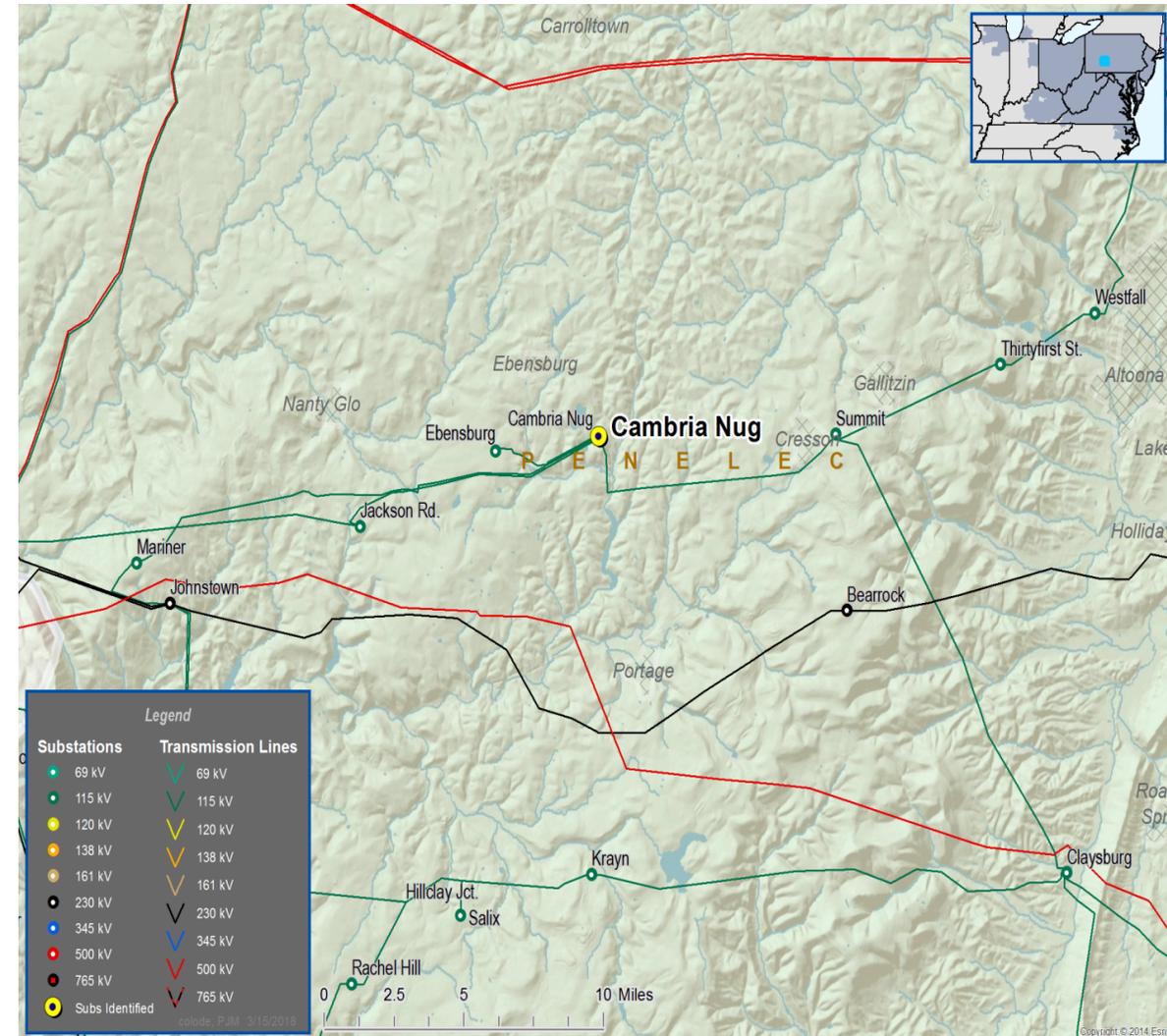
- Expand the existing Cambria Slope 115 kV Substation to a six (6) breaker ring bus. (\$1645)

Estimated Project Cost: \$30.0M

The change in project cost is primarily due to the expansion of the substation yard onto adjacent property. Construction of the new ring bus in the expanded yard would avoid the need for extended line outages during construction that would be needed if the ring bus were constructed within the existing station property. Additionally, material costs, including steel prices, have increased since the project was originally presented.

Projected IS Date: 12/31/2023

Status: Engineering



Need Number: PN-2019-002

Process Stage: Represent Revised Solution 4/19/2022

Previously Presented:

- Need Meeting: 2/22/2019
- Solutions Meeting: 3/25/2019

Proposed Solution:

Erie South #6 230/115 kV Transformer Replacement

- Replace the #6 230/115 kV transformer with a 230/115 kV 180/240/300 MVA transformer.
- ~~Replace the 230 kV circuit switcher with a circuit breaker.~~
 - The 230 kV circuit switcher will not be replaced with a circuit breaker due to space constraints within the existing control enclosure for the relaying for a new circuit breaker.

Transmission Line Ratings:

- Erie South #6 230/115 kV Transformer
 - Before Proposed Solution: 262/326 MVA (SN/SE)
 - After Proposed Solution (anticipated): **363/387** MVA (SN/SE)

Alternatives Considered:

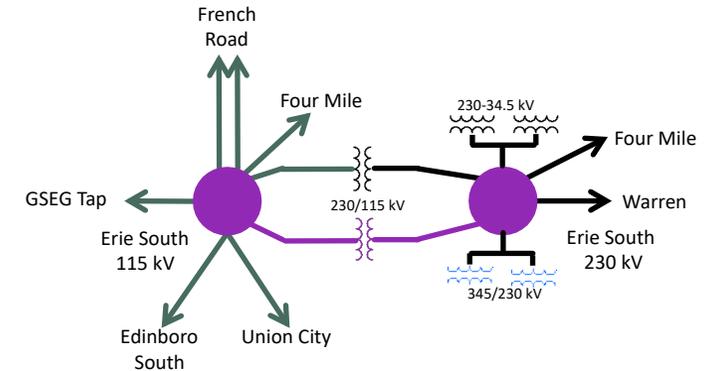
Maintain existing condition and elevated risk of failure

Estimated Project Cost: \$4.6M

Projected In-Service: 12/31/2022

Project Status: Engineering

Model: 2018 RTEP model for 2023 Summer (50/50)



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

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

5/6/2021 – V1 – Original version posted to pjm.com