

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

July 20, 2023

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-2023-005

Process State: Need Meeting 07/20/2023

Project Driver:

Operational Flexibility and Efficiency

Specific Assumption Reference:

Add/Expand Bus Configuration

- Eliminate simultaneous outages to multiple network elements

System Performance Projects

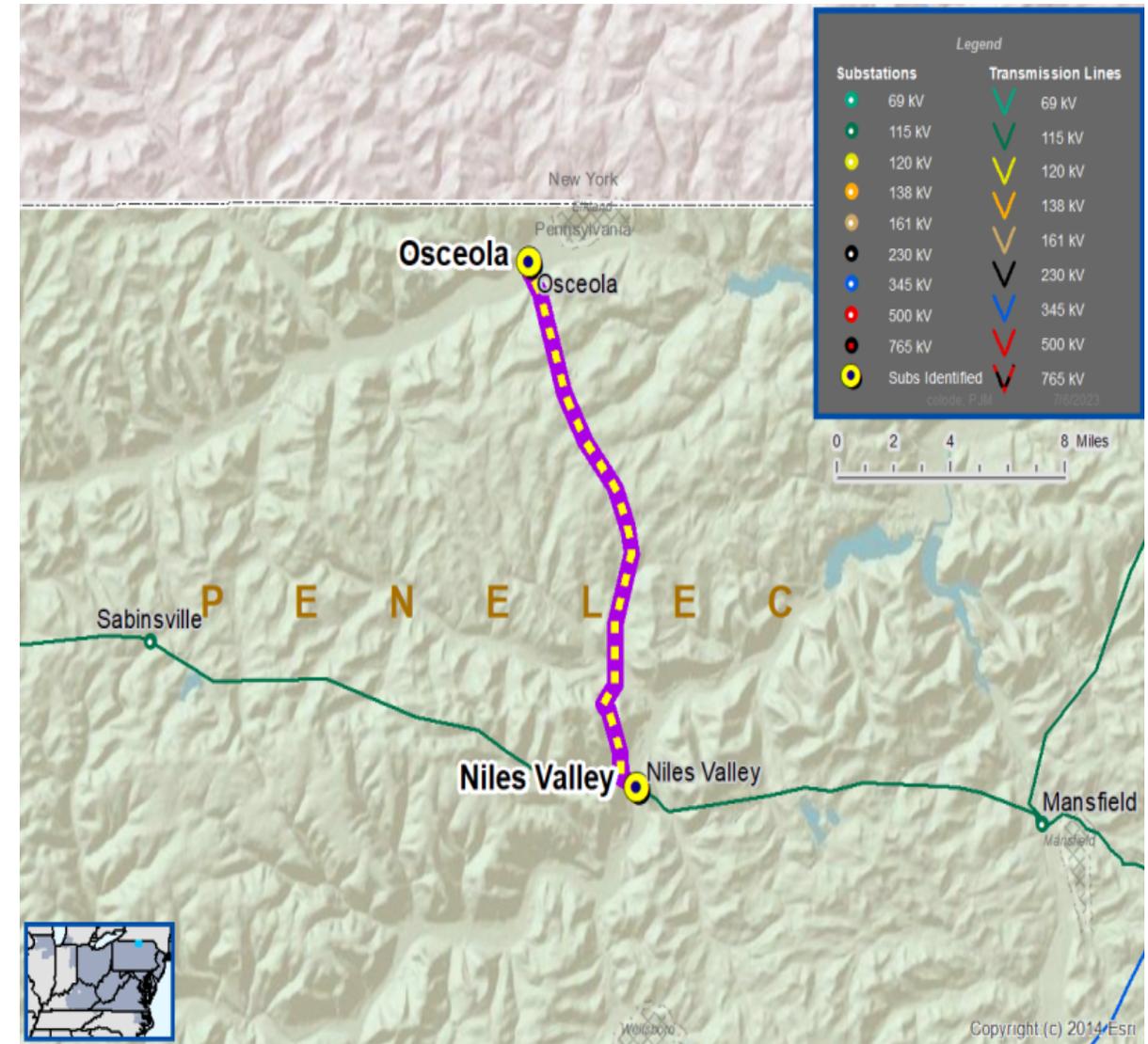
- Substation/line equipment limits

System Performance Projects Global Factors

- Load and/or customers at risk on single transmission line

Problem Statement:

- Niles Valley 115 kV substation serves approximately 30 MW of load and 331 customers, including one large municipal customer (Wellsboro).
- Additional 12 MW of load and 2,746 customers are served radially from Niles Valley at Osceola 115 kV Substation.
- The existing Niles Valley 115 kV Substation contains two networked 115 kV lines, two radial 115 kV lines, two 115-34.5 kV transformers, and a 115 kV capacitor bank.
- There are straight busses separated by a bus tie breaker. The distribution transformers do not have high side protection devices. During breaker maintenance (a potential two day outage), Wellsboro 115 kV service would be interrupted with no backup service (26 MVA of load).



Need Number: PN-2023-006

Process State: Need Meeting 07/20/2023

Project Driver:

Operational Flexibility and Efficiency

Specific Assumption Reference:

Add/Expand Bus Configuration

- Eliminate simultaneous outages to multiple network elements

System Performance Projects

- Substation/line equipment limits

System Performance Projects Global Factors

- Load and/or customers at risk on single transmission line

System Conversion Methodology

- Customer feedback

Problem Statement:

- Edinboro South 115 kV Substation serves approximately 43 MW of load to 4,044 customers. A fault on the Erie South - Edinboro South 115 kV Line results in interruption of service to the #1 115-34.5 kV transformer with limited network transfer capability during peak conditions.

- The Erie South - Edinboro South 115 kV Line is approximately 16.9 miles long. Over the past five years, the Erie South - Edinboro South 115 kV Line has experienced two sustained outages.

- Edinboro South – Morgan Street – Springboro 115 kV Line has experienced a total of ten outages and there are five sustained outages over the past five years.



Need Number: PN-2023-007

Process State: Need Meeting 07/20/2023

Project Driver:

Customer Service

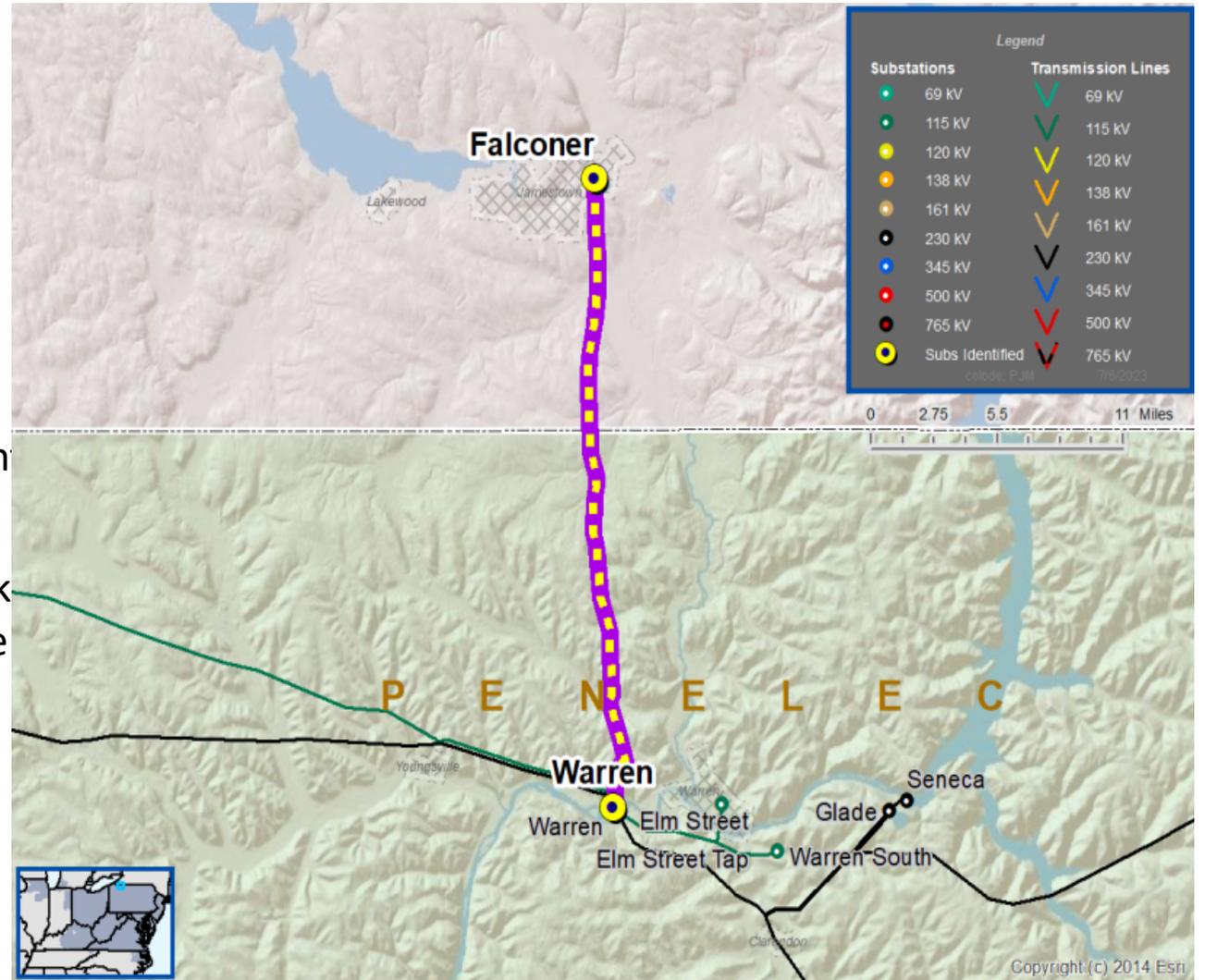
Specific Assumption Reference:

Customer request will be evaluated per FirstEnergy’s “Requirements for Transmission Connected Facilities” document and “Transmission Planning Criteria” document

Problem Statement:

New Customer Connection – A customer requested 115 kV service; anticipated load is 22.4 MVA; location is near the Warren – Falconer 115 kV Line.

Requested in-service date is 12/31/2024



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

7/10/2023 – V1 – Original version posted to pjm.com