

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

February 17, 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: ME-2022-001

Process Stage: Need Meeting 2/17/2022

Project Driver:

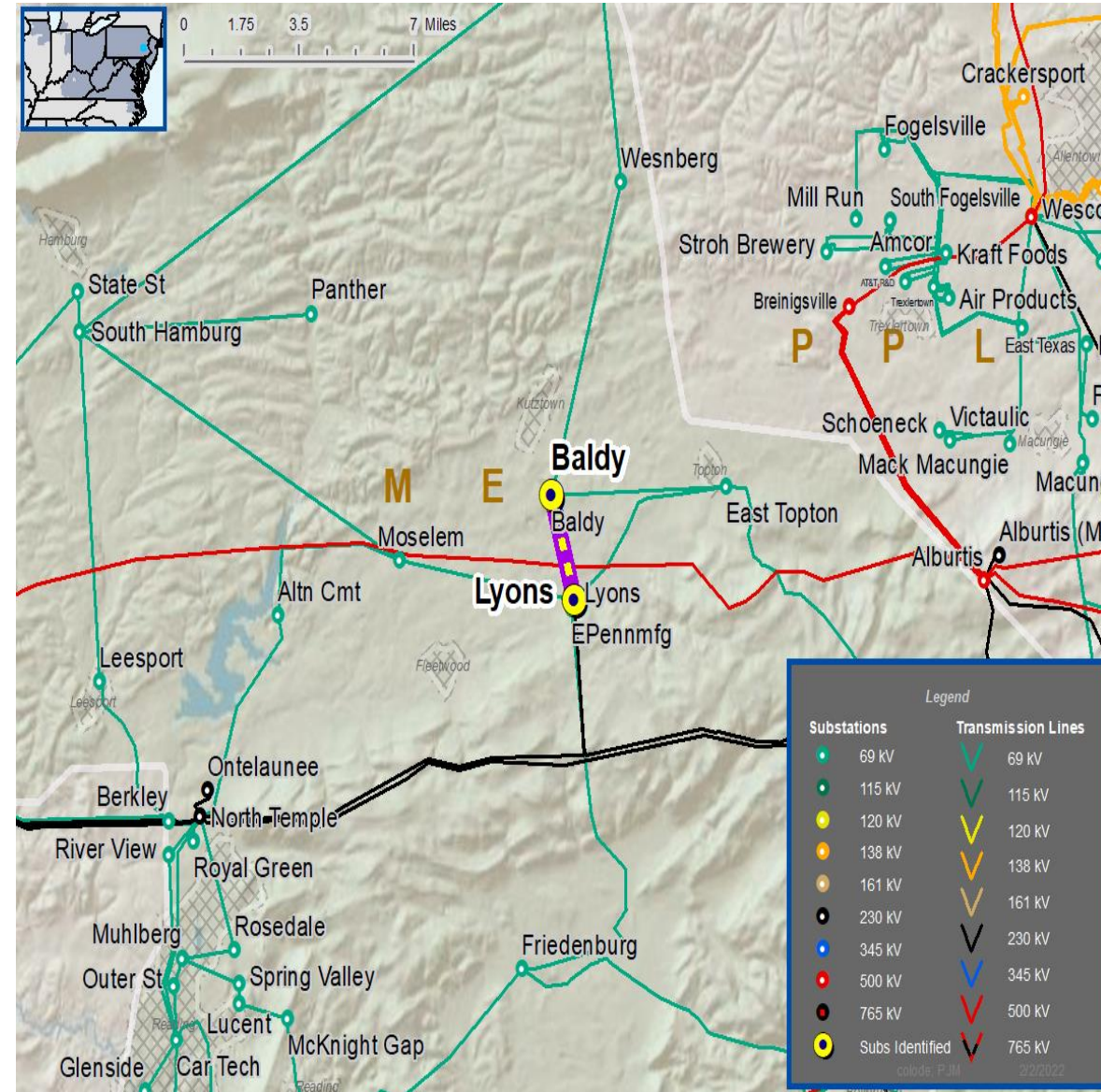
Equipment Material Condition, Performance and Risk, Operational Flexibility and Efficiency

Specific Assumption Reference:

System Performance Projects Global Factors

- System reliability and performance
 - Substation/line equipment limits
- Upgrade Relay Schemes
- Relay schemes that have a history of misoperation
 - Obsolete and difficult to repair communication equipment (DTT, Blocking, etc.)
 - Communication technology upgrades
 - Bus protection schemes

Continued on next slide...



Problem Statement:

- FirstEnergy has identified protection schemes using a certain vintage of relays and communication equipment that have a history of misoperation.
- Proper operation of the protection scheme requires all the separate components perform adequately during a fault.
- In many cases the protection equipment cannot be repaired due to a lack of replacement part and available expertise in the outdated technology.
- Transmission line ratings are limited by terminal equipment.

ME-2022-	Transmission Line / Substation Locations	Existing Line Rating (SN / SE)	Existing Conductor Rating (SN / SE)	Limiting Terminal Equipment
005	Baldy – Kutztown Tap 69 kV Line Kutztown Tap - Lyons	76/90 80/96	80/96 80/96	Substation Conductor Transmission Line Conductor

Update to S1761 Supplemental Project

Need Number: ME-2018-001

Process Stage: Re-present Solutions Meeting 2/17/2022

Need Presented: 9/21/2018

Solution Presented: 10/29/2018

Project Driver(s):

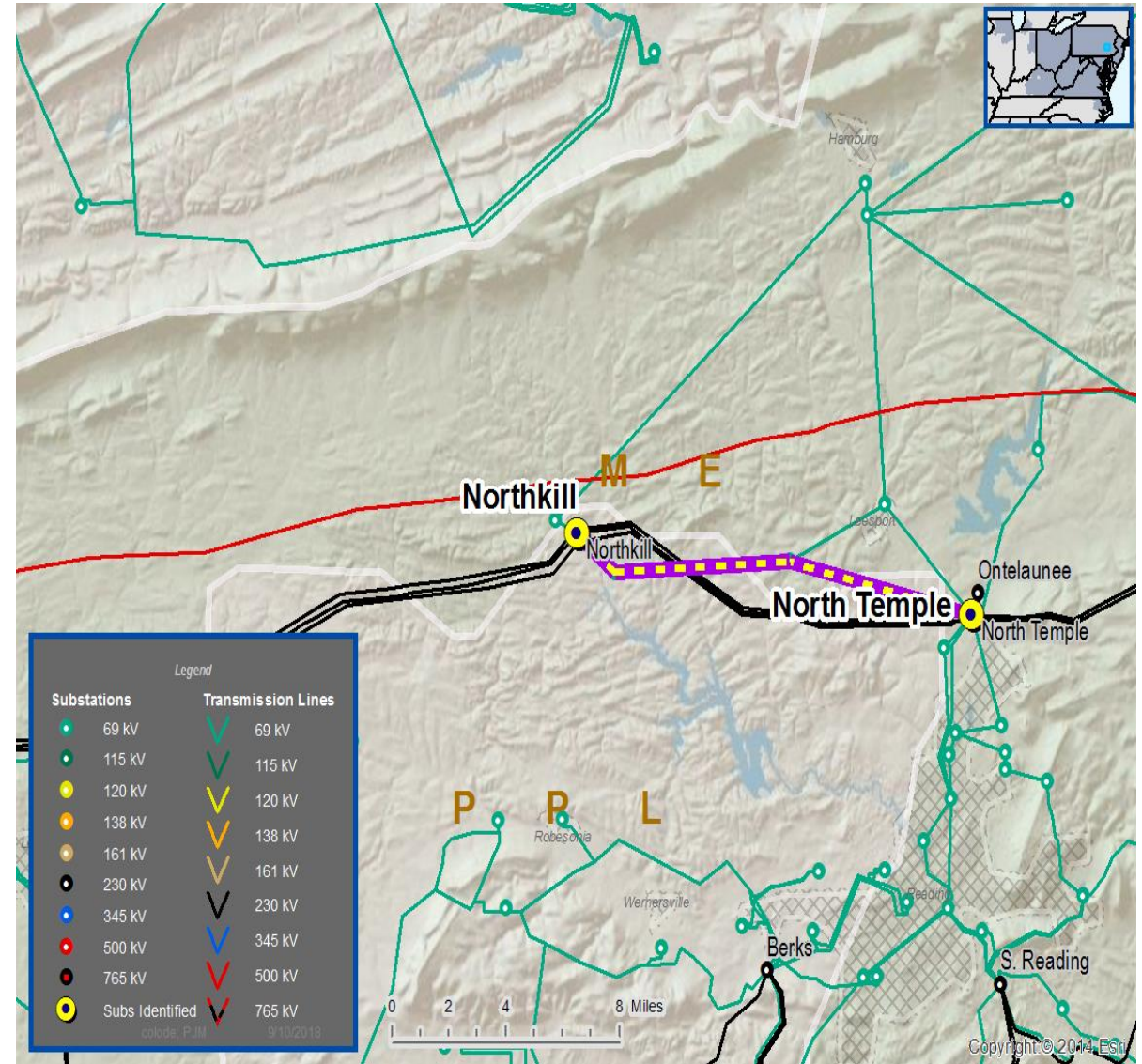
Customer Service

Specific Assumption Reference(s)

New customer connection 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 69 kV service for load of approximately 17 MVA near the North Temple – Northkill 69 kV line. Requested in-service date is 12/2019.



Need Number: ME-2018-001

Old Proposed Solution:

Van Reed Substation

- Construct new Van Reed 69 kV Ring Bus Substation
- Loop the Northkill - North Temple 69 kV line into Van Reed
- Provide new 69 kV delivery point for customer

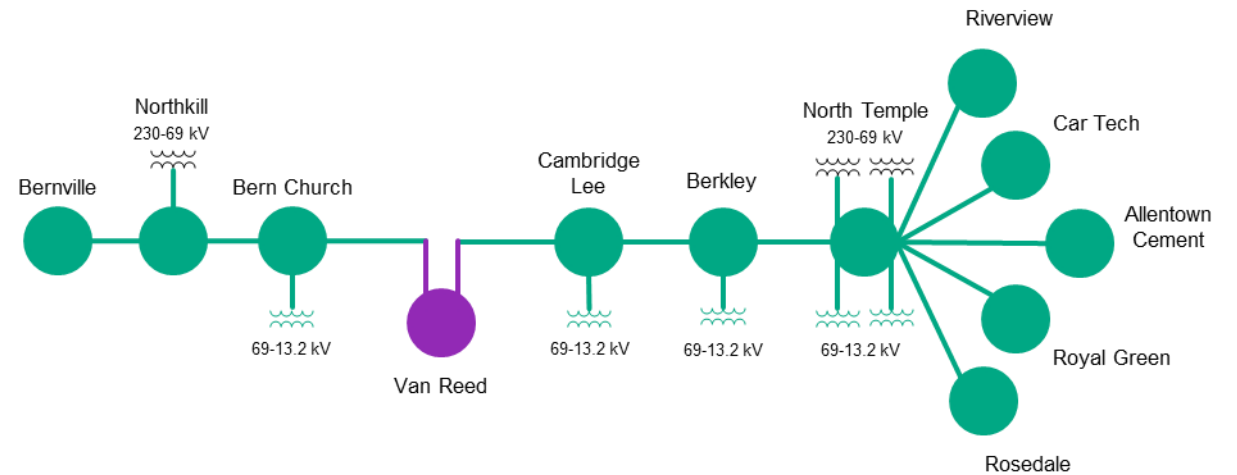
Alternatives Considered:

- None (obligation to serve)

Estimated Project Cost: \$3.6M

Projected IS Date: 12/31/2019

Status: Conceptual



Legend	
500 kV	
230 kV	
138 kV	
115 kV	
69 kV	
46 kV	
New	

Need Number: ME-2018-001

New Proposed Solution:

Van Reed Substation

- Construct new Van Reed 69 kV Ring Bus Substation
- Loop the Northkill - North Temple 69 kV line into Van Reed (Approx. 3.8 miles)
- Provide new 69 kV delivery point for customer

- Cost increase due to:
 - Transmission line estimate revisions
 - Substation estimate revisions
 - Transmission line length increased 1.6 miles
 - Transmission line has 0.5 mile of underground construction
 - More detailed engineering completed

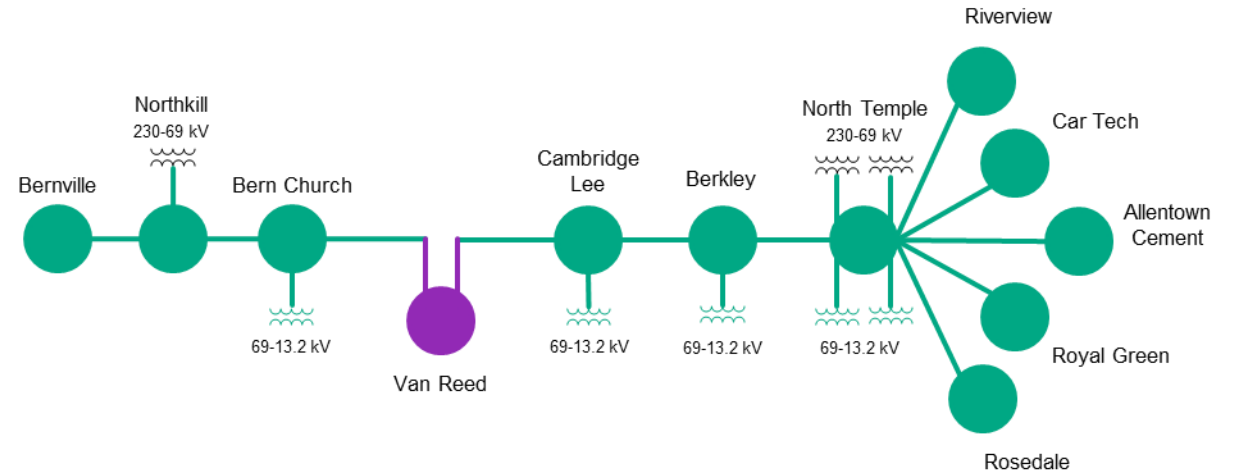
Alternatives Considered:

- None (obligation to serve)

Estimated Project Cost: \$33.7M

Projected IS Date: 3/1/2024

Status: Conceptual



Legend	
500 kV	
230 kV	
138 kV	
115 kV	
69 kV	
46 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

2/7/2021 – V1 – Original version posted to pjm.com