

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

October 15, 2020

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: ME-2020-005

Process Stage: Solution Meeting 10/15/2020

Previously Presented: Need Meeting 4/16/2020

Project Driver:

Customer Service

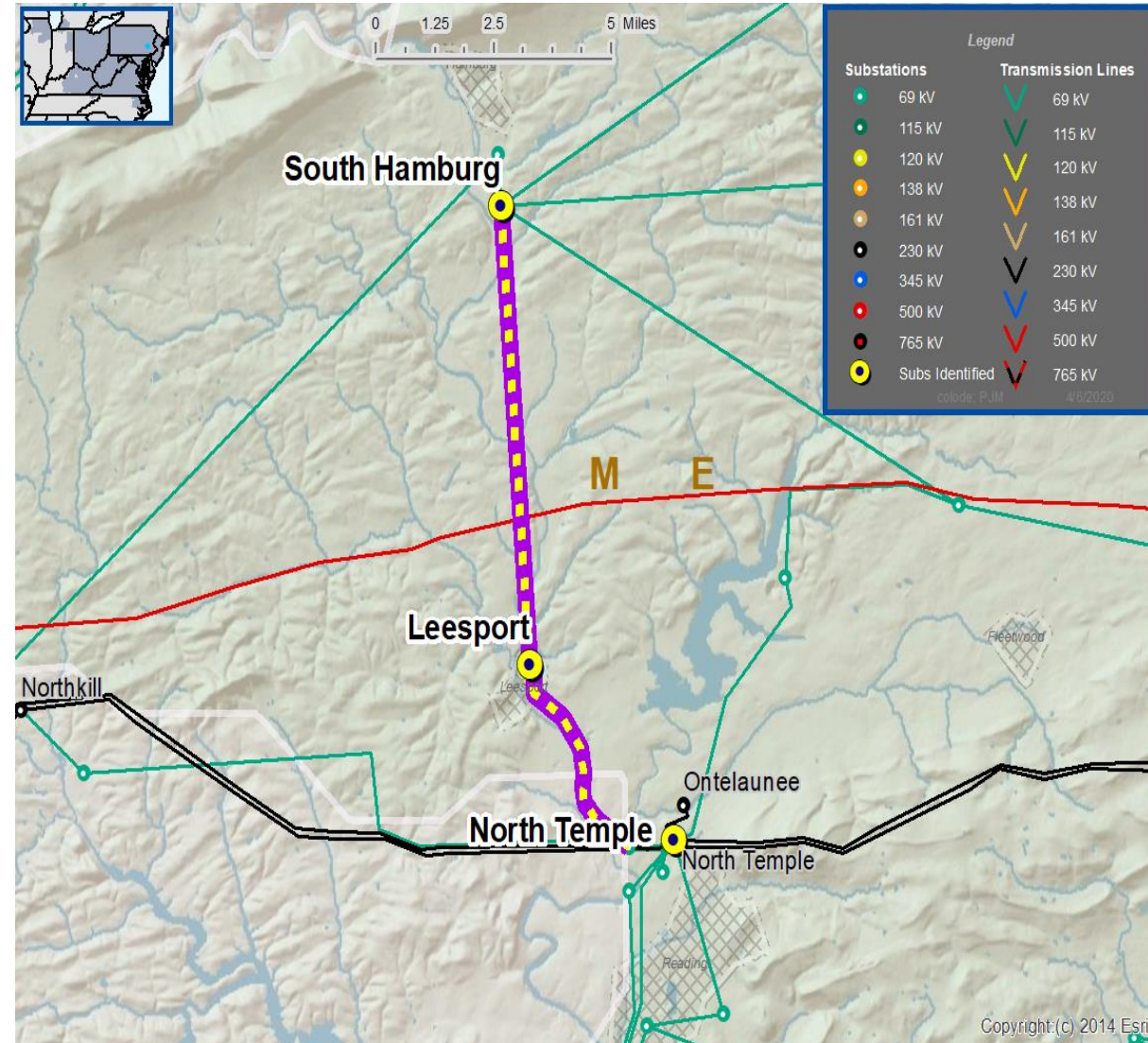
Specific Assumption Reference:

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 69 kV service; anticipated load is 17 MVA; location is near the South Hamburg – Leesport – North Temple 69 kV line.

Requested in-service date is 6/1/2021



Need Number: ME-2020-005

Process Stage: Solution Meeting 10/15/2020

Proposed Solution:

- Tap the South Hamburg-Leesport-North Temple 69 kV line
- Install 69 kV switches
- Construct ~1 span of 69 kV to customer substation

Alternatives Considered:

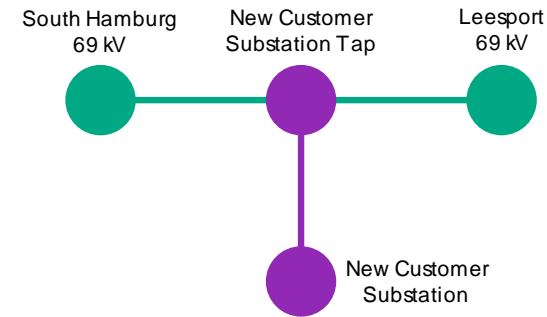
- None

Estimated Project Cost: \$1.9M

Projected In-Service: 06/01/2021

Project Status: Conceptual

Model: 2020 RTEP model for 2025 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: ME-2020-007

Process Stage: Solution Meeting 10/15/2020

Previously Presented: Meeting 4/16/2020

Project Driver:

Customer Service

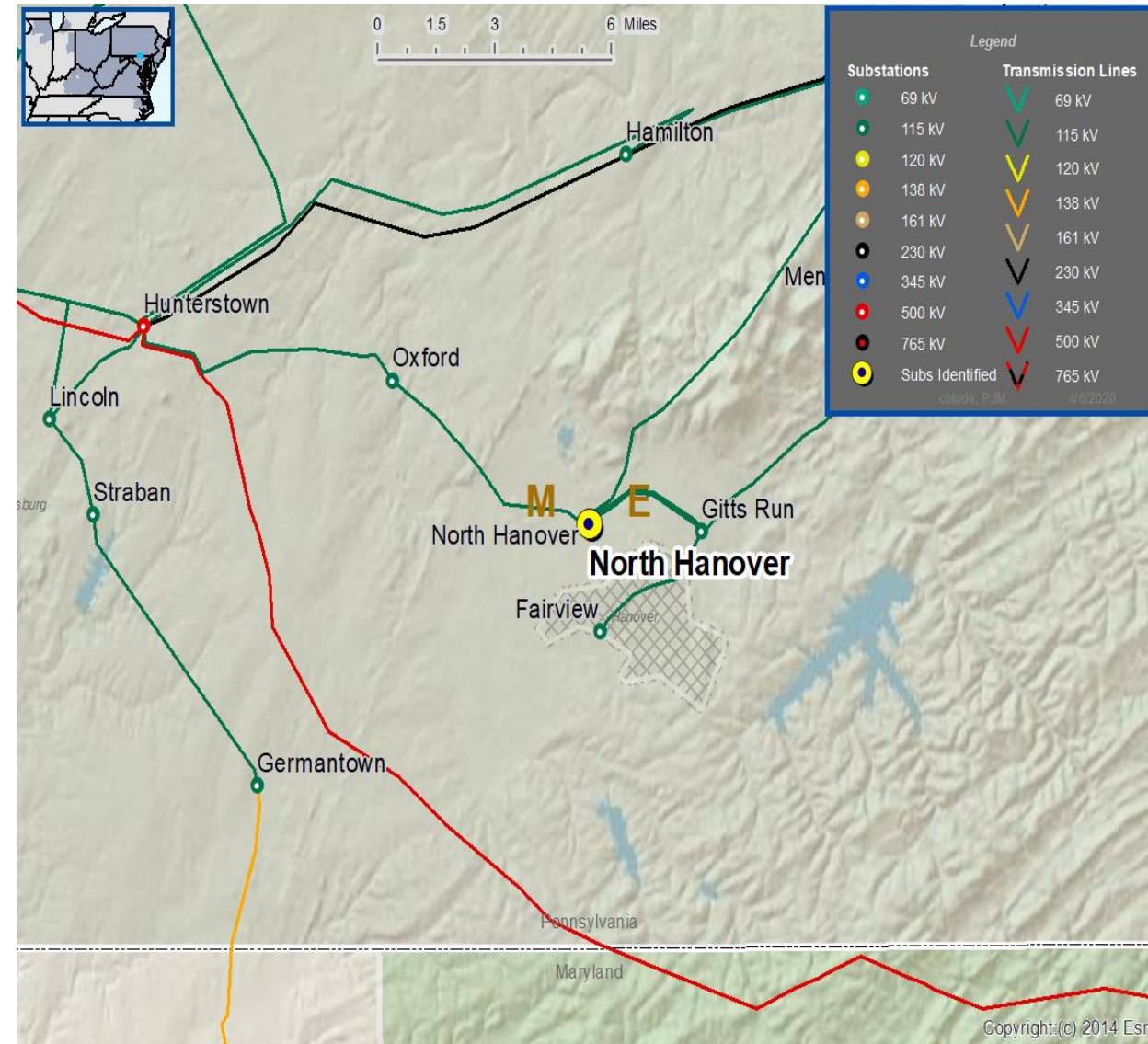
Specific Assumption Reference:

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 21 MVA; location is near the North Hanover 115 kV substation

Requested in-service date is 6/1/2021



Need Number: ME-2020-007

Process Stage: Solution Meeting 10/15/2020

Proposed Solution:

- Loop the North Hanover – Fairview 115 kV line into the customer substation. (Approx. 1 span)
- Install 115 kV switches with SCADA control and Auto-Sectionalizing

Alternatives Considered:

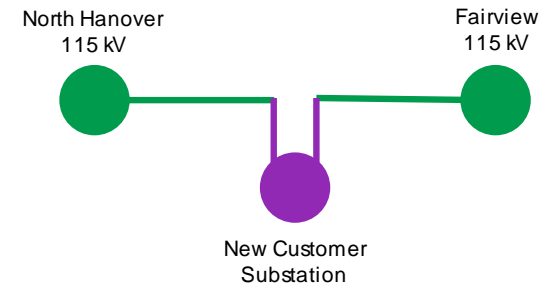
- None

Estimated Project Cost: \$0.8M

Projected In-Service: 06/01/2021

Project Status: Conceptual

Model: 2020 RTEP model for 2025 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: ME-2020-009

Process Stage: Solution Meeting 10/15/2020

Previously Presented: Need Meeting 06/16/2020

Project Driver:

Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

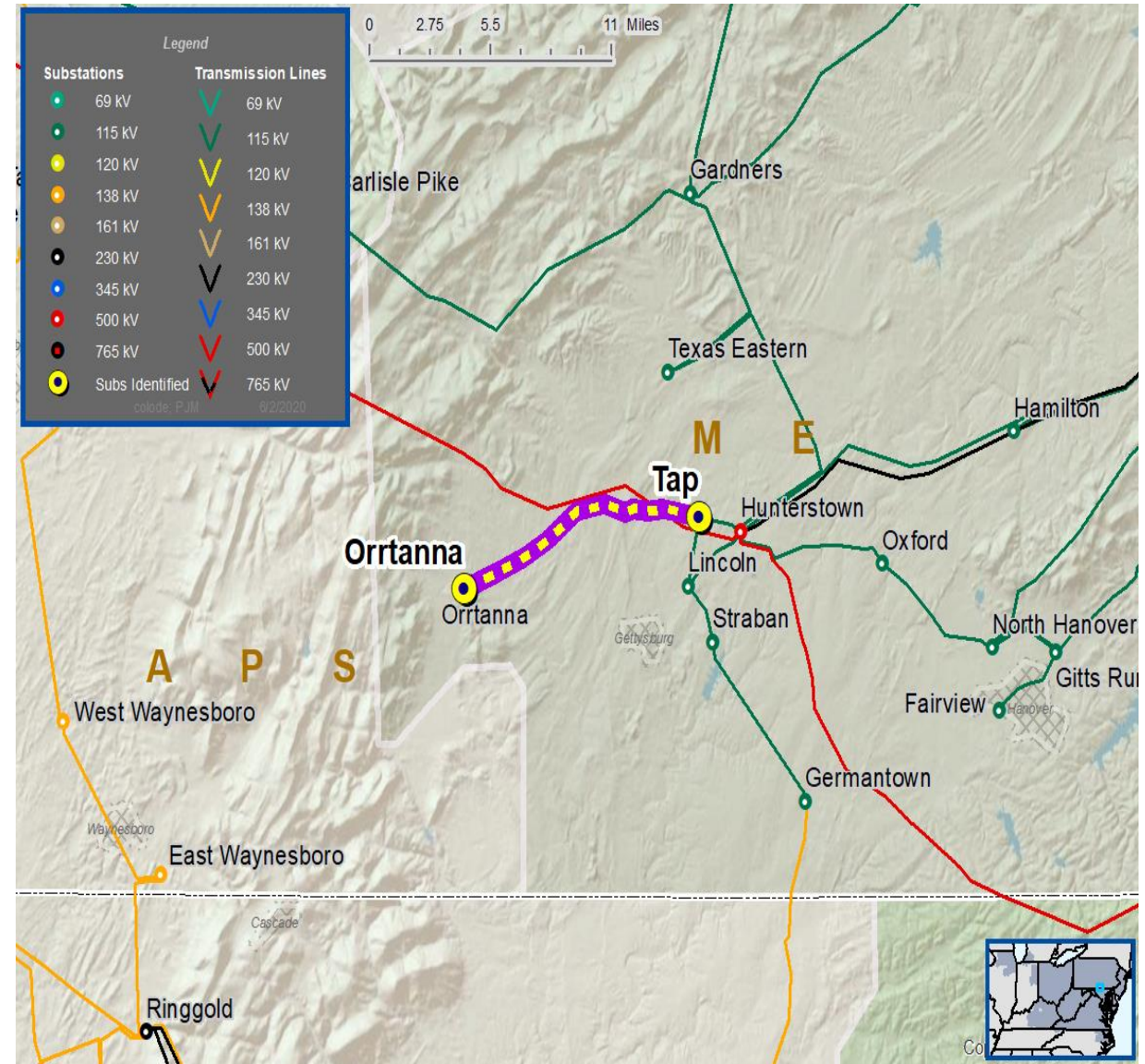
Line Condition Rebuild/Replacement

- Age/condition of wood pole transmission line structures

Problem Statement:

The Orrtanna tap – Orrtanna section of the Hunterstown – Lincoln – Orrtanna 115 kV 963 line is exhibiting deterioration.

- Total line distance is approximately 9 miles.
- 73 out of 74 structures failed inspection (99% failure rate).
- Failure reasons include age, top rot, woodpecker holes, and cut and missing grounds.



Need Number: ME-2020-009

Process Stage: Solution Meeting 10/15/2020

Proposed Solution:

- Cancel supplemental upgrade s1725.1
 - Loop the Hunterstown – Lincoln 115 kV line, approximately 9 miles, into Orrtanna substation by constructing a single circuit 115 kV line adjacent to the existing radial 963 line.
 - S1725.1 Estimate Cost - \$30.9 M
- Loop the Hunterstown – Lincoln 115 kV line, approximately 9 miles, into Orrtanna substation by constructing a double circuit 115 kV line adjacent to the existing radial 963 line.
- Remove the existing radial 963 line from Orrtanna tap to Orrtanna (approximately 9 miles).

Alternatives Considered:

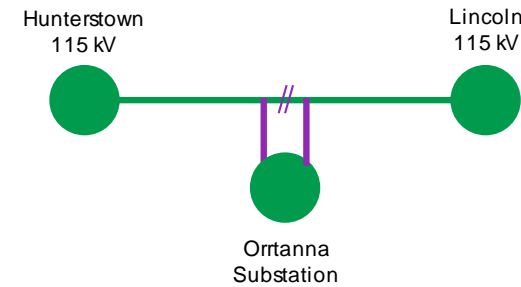
- Rebuild the existing radial line as a double circuit construction.
- Complete the s1725.1 upgraded followed by a rebuild of the existing radial 963 line.

Estimated Project Cost: \$38.5M

Projected In-Service: 12/31/2021

Project Status: Conceptual

Model: 2020 RTEP model for 2025 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: ME-2020-010

Process Stage: Solution Meeting 10/15/2020

Previously Presented: Need Meeting 8/13/2020

Project Driver:

Customer Service

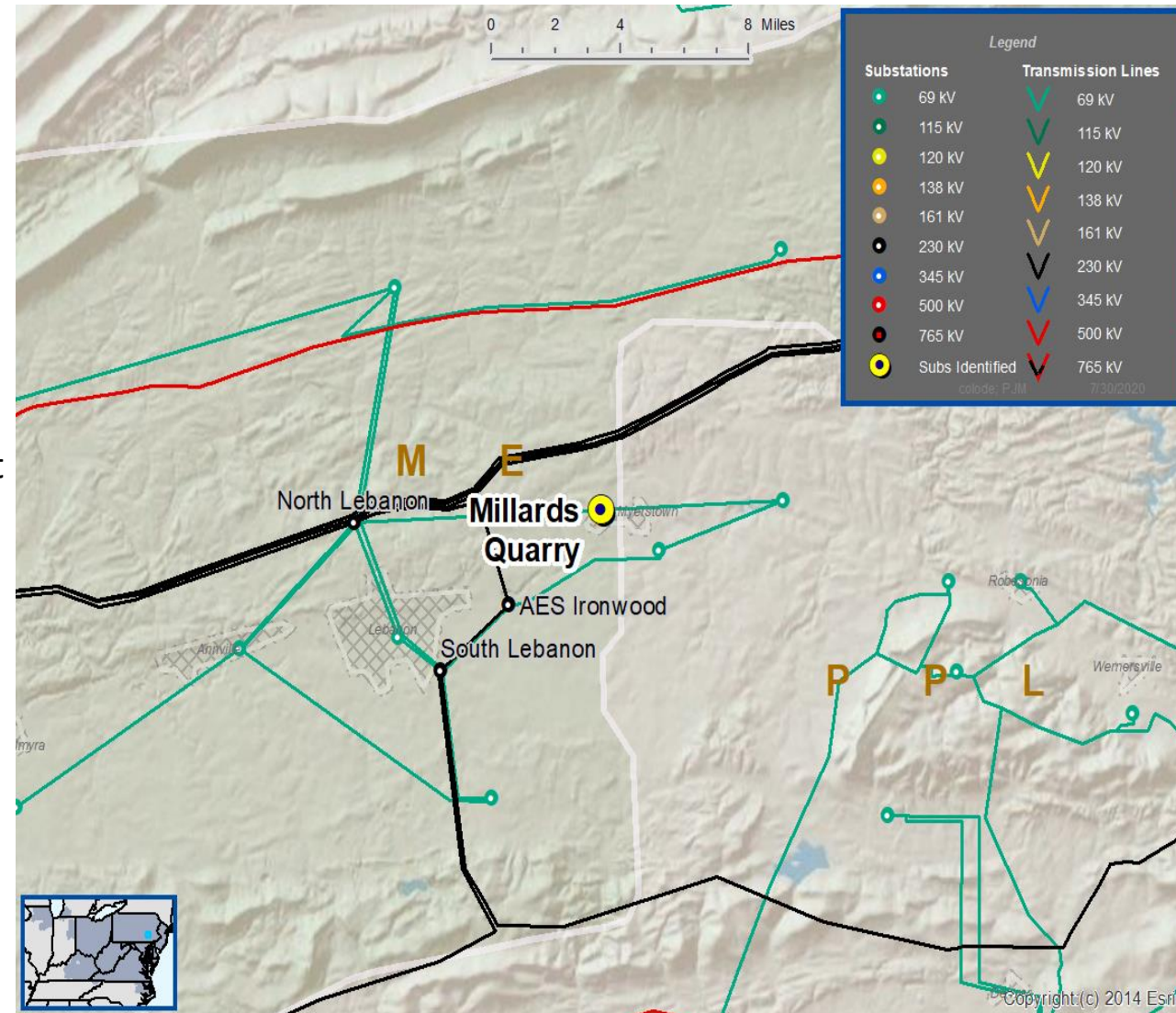
Specific Assumption Reference:

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 69 kV service; anticipated load is 9.5 MVA; location is near the Millards Quarry 69 kV substation

Requested in-service date is 1/31/2021



Need Number: ME-2020-010

Process Stage: Solution Meeting 10/15/2020

Proposed Solution:

- Tap the Campbelltown - Millards Quarry section of the Campbelltown - North Lebanon 69 kV line
- Install of 69 kV switches
- Construct 0.6 miles of 69 kV to customer substation

Alternatives Considered:

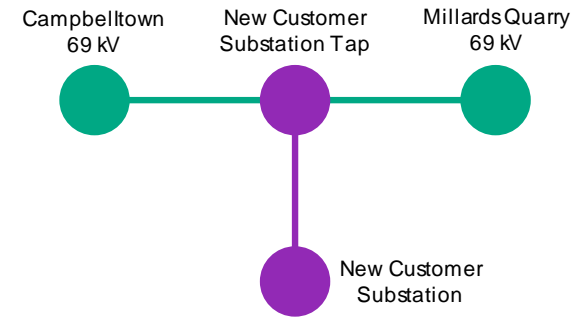
- None

Estimated Project Cost: \$2.7M

Projected In-Service: 01/31/2021

Project Status: Conceptual

Model: 2020 RTEP model for 2025 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: ME-2020-011

Process Stage: Solution Meeting 10/15/2020

Previously Presented: Need Meeting 8/13/2020

Project Driver:

Customer Service

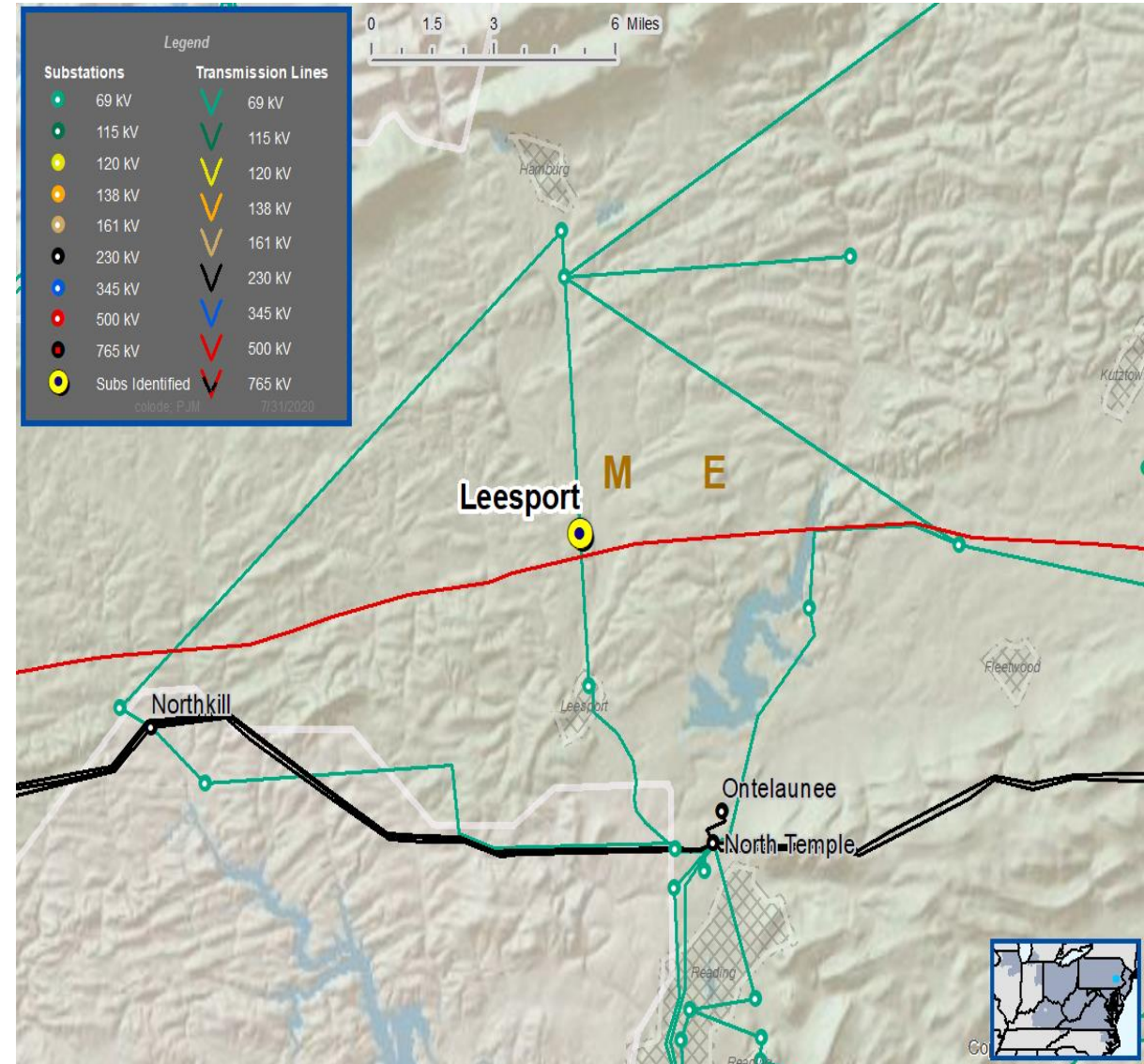
Specific Assumption Reference:

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 69 kV service; anticipated load is 10 MVA; location is near the Leesport 69 kV substation

Requested in-service date is 11/1/2020



Need Number: ME-2020-011

Process Stage: Solution Meeting 10/15/2020

Proposed Solution:

- Tap the Leesport – Berkley Tap section of the South Hamburg-North Temple 69 kV line
- Install 69 kV switches
- Construct 0.4 miles of 69 kV to customer substation

Alternatives Considered:

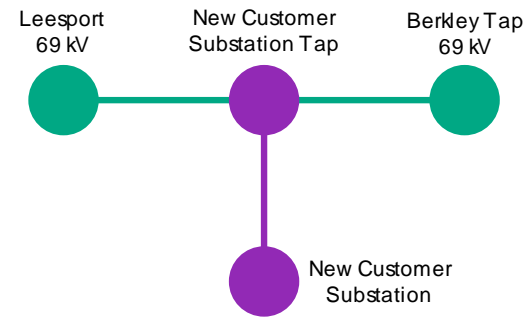
- None

Estimated Project Cost: \$2M

Projected In-Service: 03/01/2021

Project Status: Conceptual

Model: 2020 RTEP model for 2025 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

10/5/2020 – V1 – Original version posted to pjm.com

10/13/2020 – V2 – Minor wording update on slides #4, 6, 10 and 12.