Subregional RTEP Committee – Mid-Atlantic
FirstEnergy Supplemental Projects

MetEd Transmission Zone

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

MetEd Transmission Zone M-3 Process
North Lebanon 69 kV Substation, PA

Need Number: ME-2026-003

Process Stage: Need Meeting – SRRTEP-MA – 06/16/2026

Project Driver:

Operational Flexibility and Efficiency

Specific Assumption References:

- System Performance Projects
  - Add/Expand Bus Configuration
  - Load at risk in planning and operational scenarios
  - Reduce the amount of exposed potential local load loss during contingency conditions
  - Eliminate simultaneous outages to multiple networked elements

Problem Statement:

The 69 kV bus in the North Lebanon Substation is currently configured in a straight bus layout, with five 69 kV transmission line terminations, two 230-69 kV transformer terminations, and two 69-13.2 kV transformer terminations.

A bus fault or bus tie breaker fault at North Lebanon Substation would result in the loss of the North Lebanon Substation. North Lebanon Substation serves 4,700 customers and approximately 16 MW of load.

Since 2019, the North Lebanon Substation has experienced 12 unscheduled, sustained outages.

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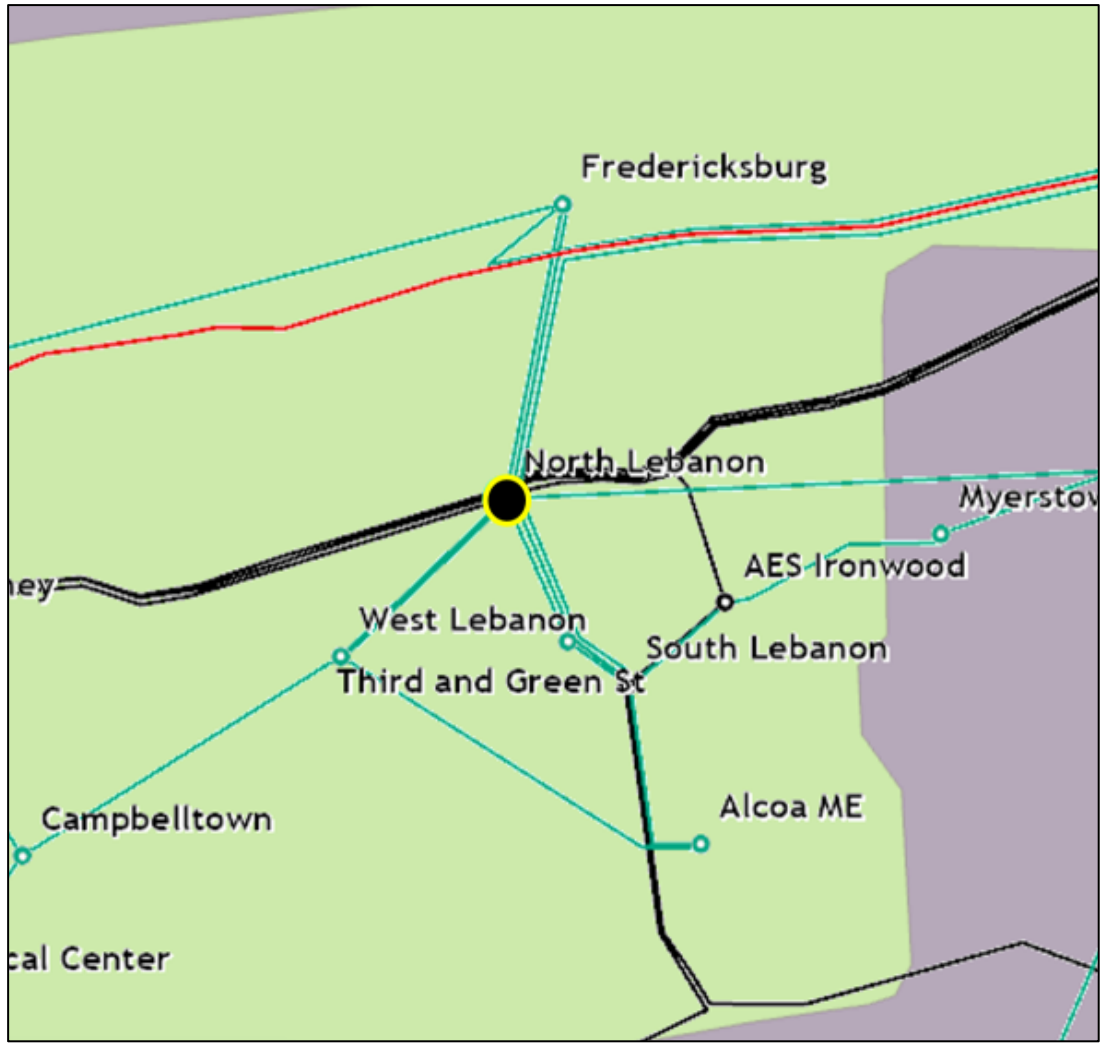


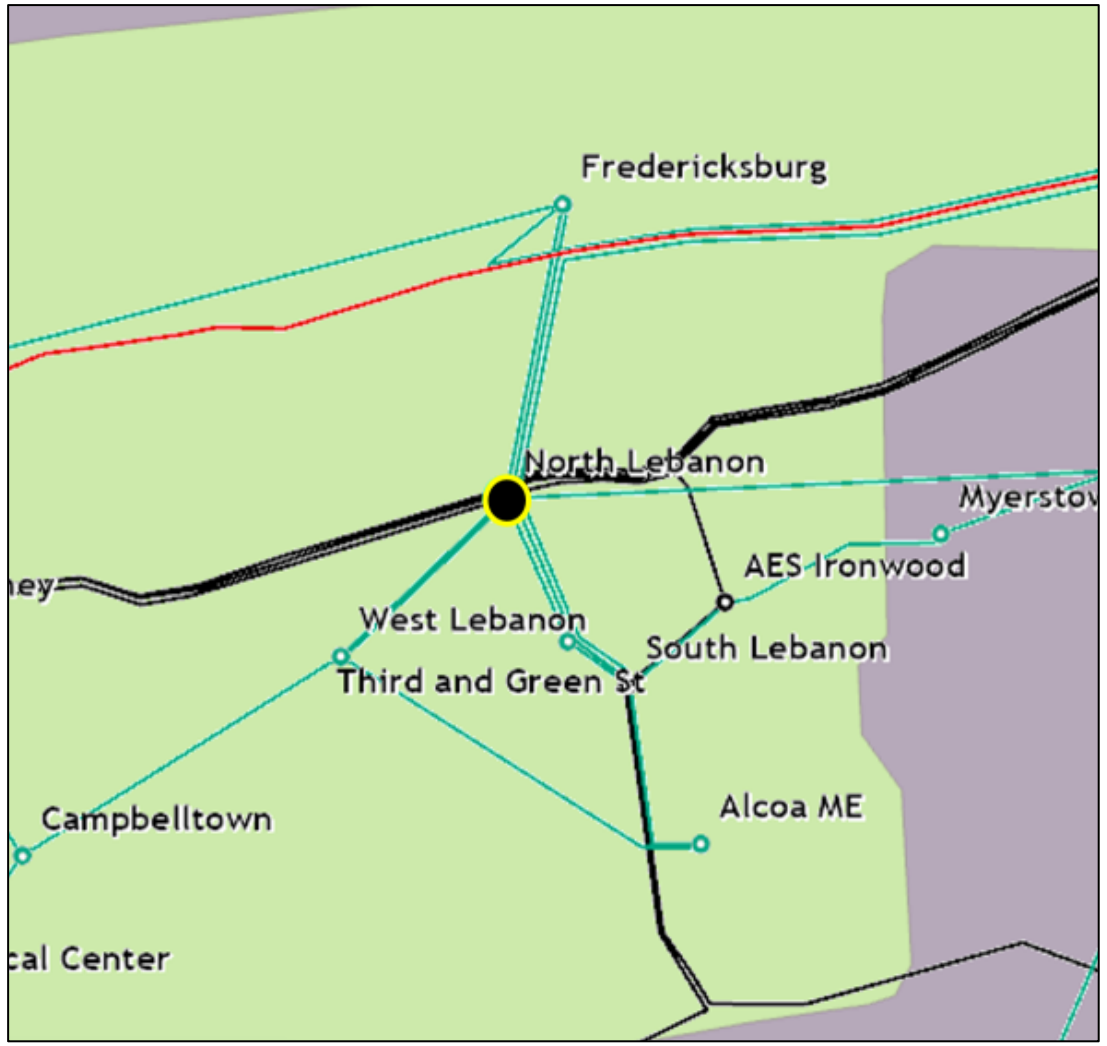
MetEd Transmission Zone M-3 Process
North Lebanon 69 kV Substation, PA

Need Number: ME-2026-003

Problem Statement: ***(Cont'd from previous slide)***

Transmission line ratings are limited by terminal equipment:

- North Lebanon - Fredericksburg Tap 69 kV Line:
  - Existing line rating: 82 / 103 / 108 / 124 MVA (SN/SE/WN/WE)
  - Existing conductor rating: 139 / 169 / 158 / 201 MVA (SN/SE/WN/WE)
- North Lebanon - Cleona 69 kV Line:
  - Existing line rating: 105 / 125 / 129 / 143 MVA (SN/SE/WN/WE)
  - Existing conductor rating: 111 / 134 / 125 / 159 MVA (SN/SE/WN/WE)
- Stouchsburg - North Lebanon 69 kV Line:
  - Existing line rating: 82 / 103 / 108 / 124 MVA (SN/SE/WN/WE)
  - Existing conductor rating: 111 / 134 / 125 / 159 MVA (SN/SE/WN/WE)



MetEd Transmission Zone M-3 Process
New Customer Connection – Taneytown No.1 Substation, MD

Need Number: ME-2026-007

Process Stage: Need Meeting – SRRTEP-MA – 06/16/2026

Project Driver:

Customer Service

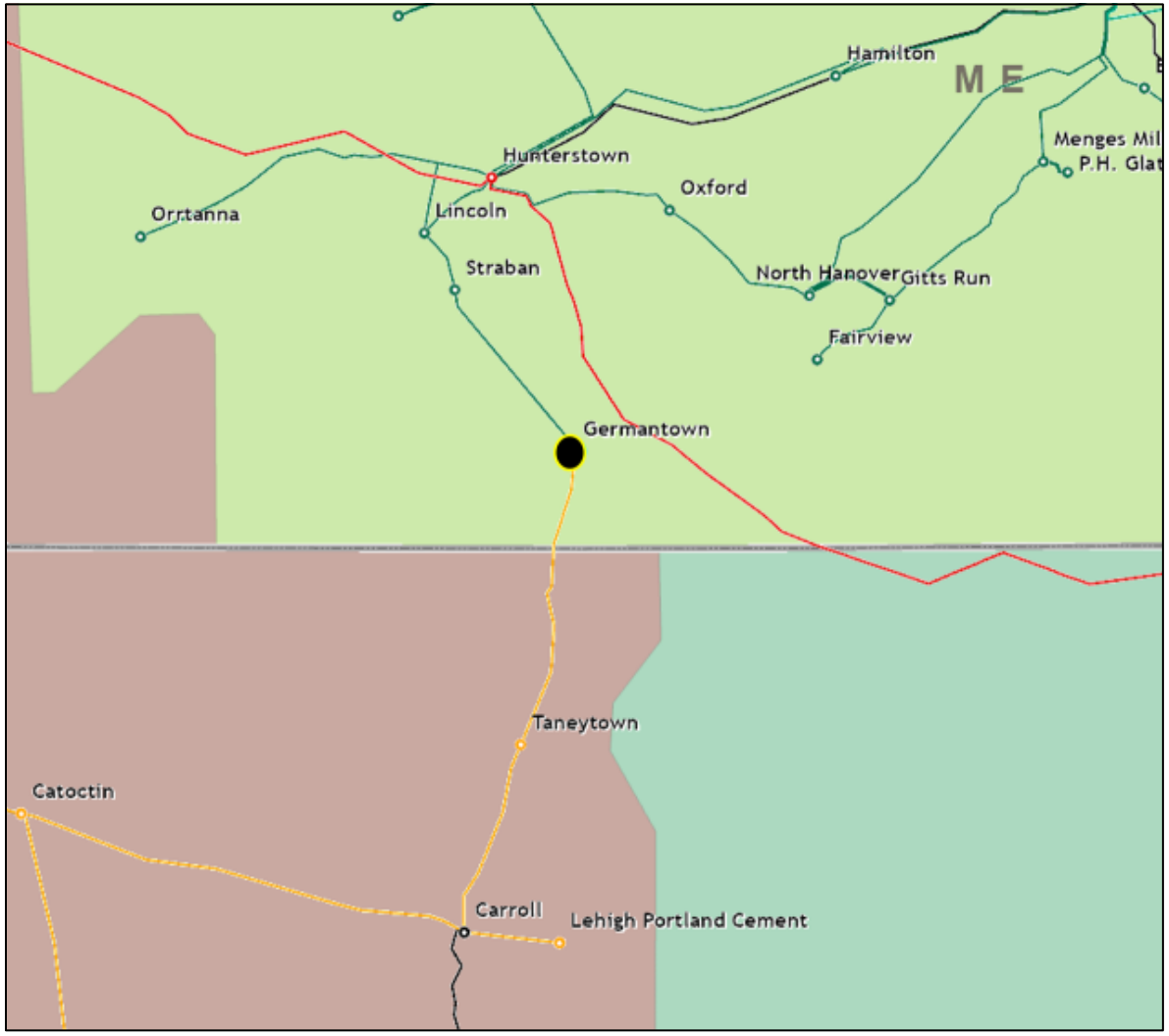
Specific Assumption References:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - A retail customer requested service for load of approximately 25 MW near the existing Taneytown No.1 Substation. Refer to APS-2026-021.

Requested in-service date is 12/30/2028.



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

MetEd Transmission Zone M-3 Process
North Hanover 115 kV Breaker and a Half Substation, PA

Need Number: ME-2024-012

Process Stage: Solution Meeting – SRRTEP-MA – 06/16/2026

Previously Presented: Need Meeting – SRRTEP-MA – 05/16/2024

Project Driver:

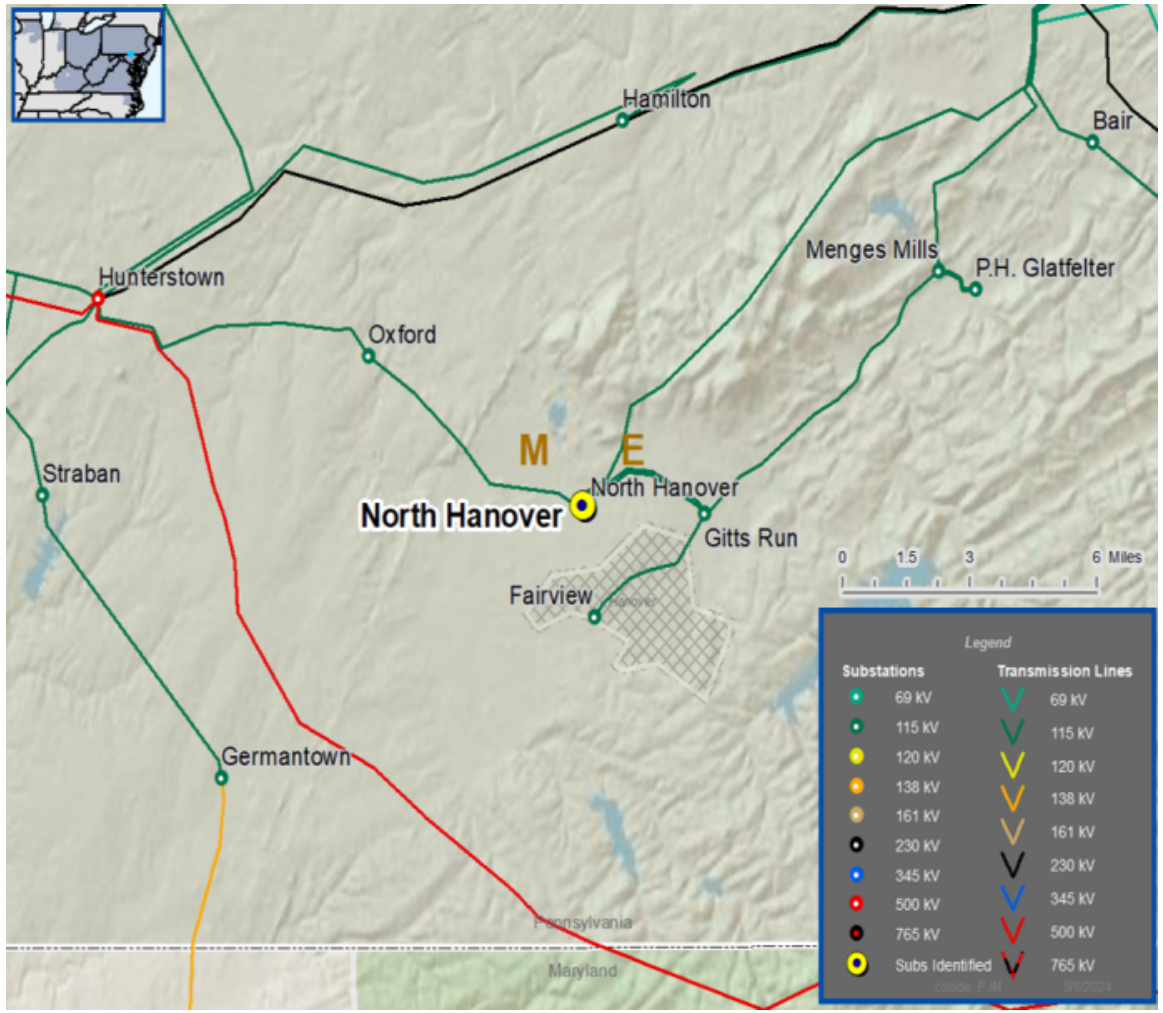
Operational Flexibility and Efficiency

Specific Assumption Reference:

- System Performance Projects
  - Add/Expand Bus Configuration
  - Load at risk in planning and operational scenarios
  - Reduce the amount of exposed potential local load loss during contingency conditions
  - Eliminate simultaneous outages to multiple networked elements

Problem Statement:

North Hanover Substation is in a straight bus configuration with terminals to three distribution transformers and four 115 kV transmission lines. The substation serves approximately 59 MW and 7,500 customers. A bus fault or faulted breaker would result in an outage to the entire substation.



MetEd Transmission Zone M-3 Process
North Hanover 115 kV Breaker and a Half Substation, PA

Need number: ME-2024-012

Process Stage: Solution Meeting –SRRTEP-MA – 06/16/2026

Proposed Solution:

Convert the 115 kV yard at North Hanover Substation into an 11 breaker, breaker-and-a-half configuration.

Revise relay settings at Gitts Run, Hunterstown, and Jackson substations.

Modify the 115 kV N. Hanover 960 Line terminal at Hunterstown Substation for fiber installation.

Ratings:

- Jackson - North Hanover 115 kV 968 Line:
  - Before Proposed Solution: 133 / 160 / 150 / 190 MVA (SN/SE/WN/WE)
  - After Proposed Solution: 133 / 160 / 150 / 190 MVA (SN/SE/WN/WE)
- Hunterstown - North Hanover 115 kV 960 Line:
  - Before Proposed Solution: 232 / 282 / 263 / 334 MVA (SN/SE/WN/WE)
  - After Proposed Solution: 232 / 282 / 263 / 334 MVA (SN/SE/WN/WE)
- Gitts Run - North Hanover No. 1 115 kV Line:
  - Before Proposed Solution: 232 / 282 / 263 / 334 MVA (SN/SE/WN/WE)
  - After Proposed Solution: 232 / 282 / 263 / 334 MVA (SN/SE/WN/WE)
- Gitts Run - North Hanover No. 2 115 kV Line:
  - Before Proposed Solution: 221 / 263 / 263 / 301 MVA (SN/SE/WN/WE)
  - After Proposed Solution: 221 / 263 / 263 / 301 MVA (SN/SE/WN/WE)

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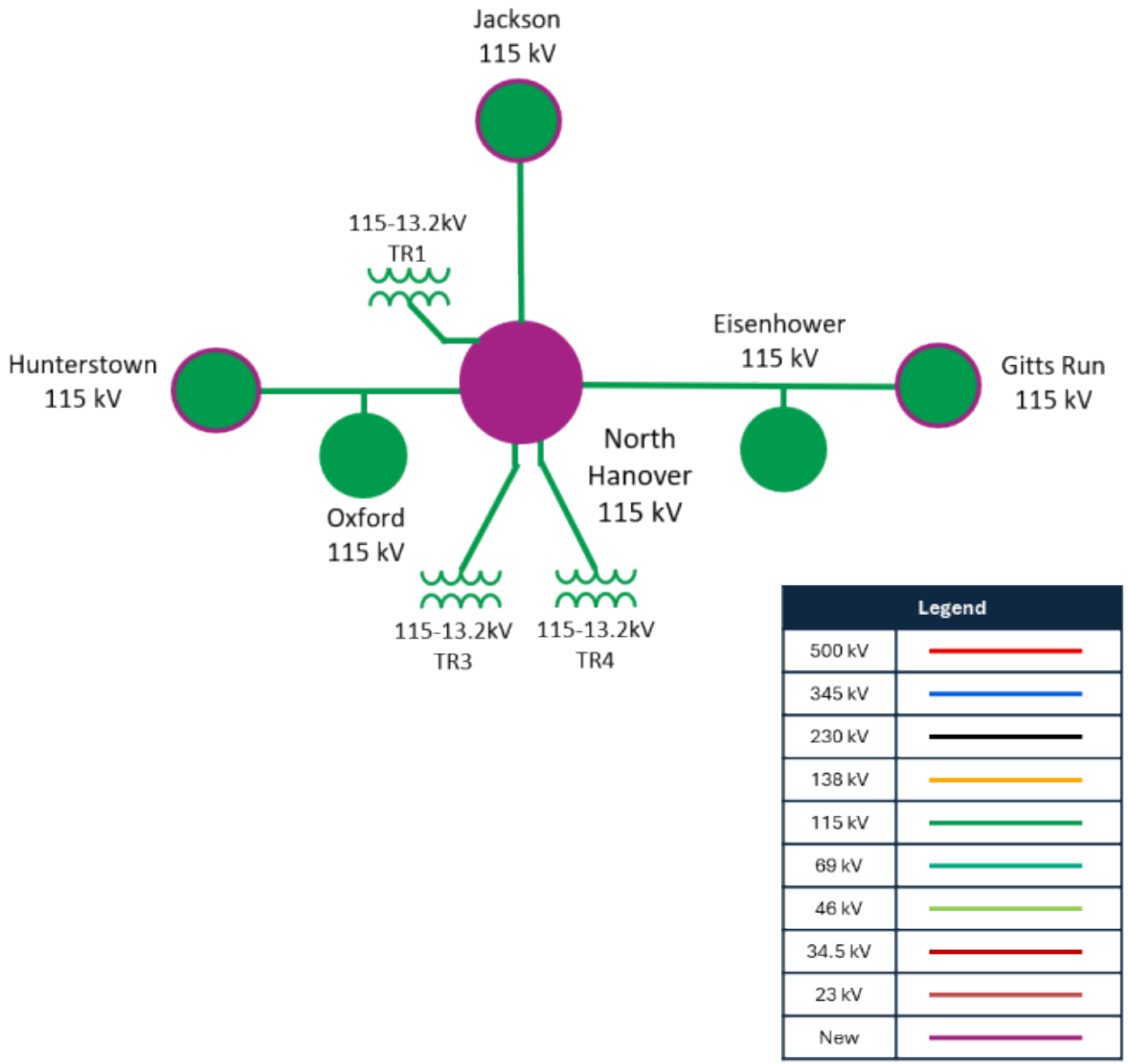

MetEd Transmission Zone M-3 Process
North Hanover 115 kV Breaker and a Half Substation, PA

Need number: ME-2024-012

Process Stage: Solution Meeting –SRRTEP-MA – 06/16/2026

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Alternatives Considered:

Maintain existing configuration with risk to customer service under contingency scenarios.

Estimated Project Cost:	$36.79M
Projected In-Service:	12/29/2028
Project Status:	Conceptual
Model:	2024 RTEP model for 2029 Summer (50/50)

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

06/05/2026 – V1 – Original version posted to pjm.com