

Subregional RTEP Committee – Western FirstEnergy Supplemental Projects

August 18, 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: APS-2023-030

Process Stage: Need Meeting – 08/18/2023

Supplemental Project Driver(s):

Customer Service

Specific Assumption Reference(s):

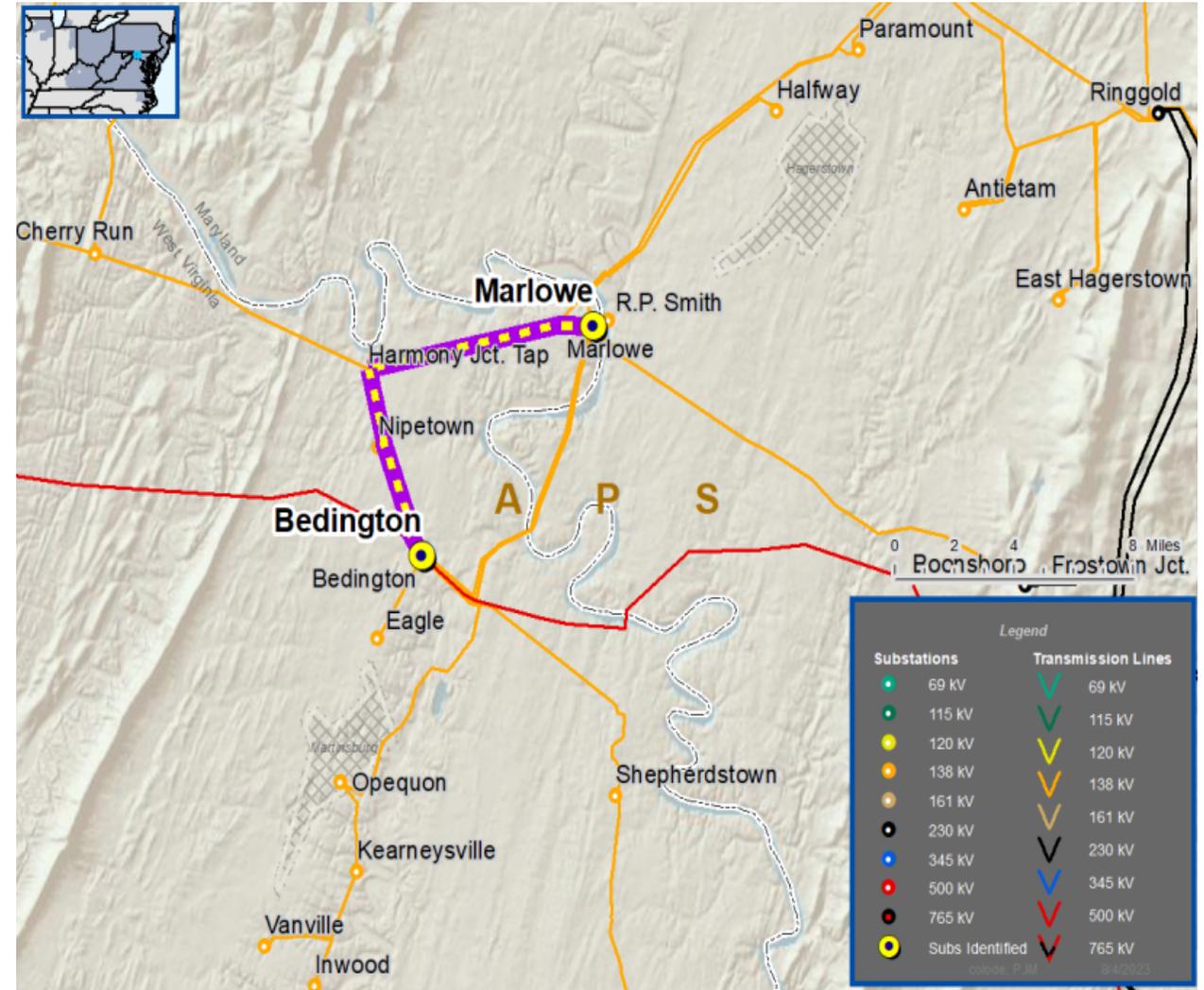
New customer connection request will be evaluated per FirstEnergy’s “Requirements for Transmission Connected Facilities” document and “Transmission Planning Criteria” document.

Problem Statement

New Customer Connection – Customer requested 138 kV transmission service for approximately 64 MVA of total load near the Bedington – Marlowe BMA 138 kV Line.

Requested In-Service Date:

2/28/2025



Need Number: APS-2023-039

Process Stage: Need Meeting – 08/18/2023

Supplemental Project Driver(s):

Customer Service

Specific Assumption Reference(s):

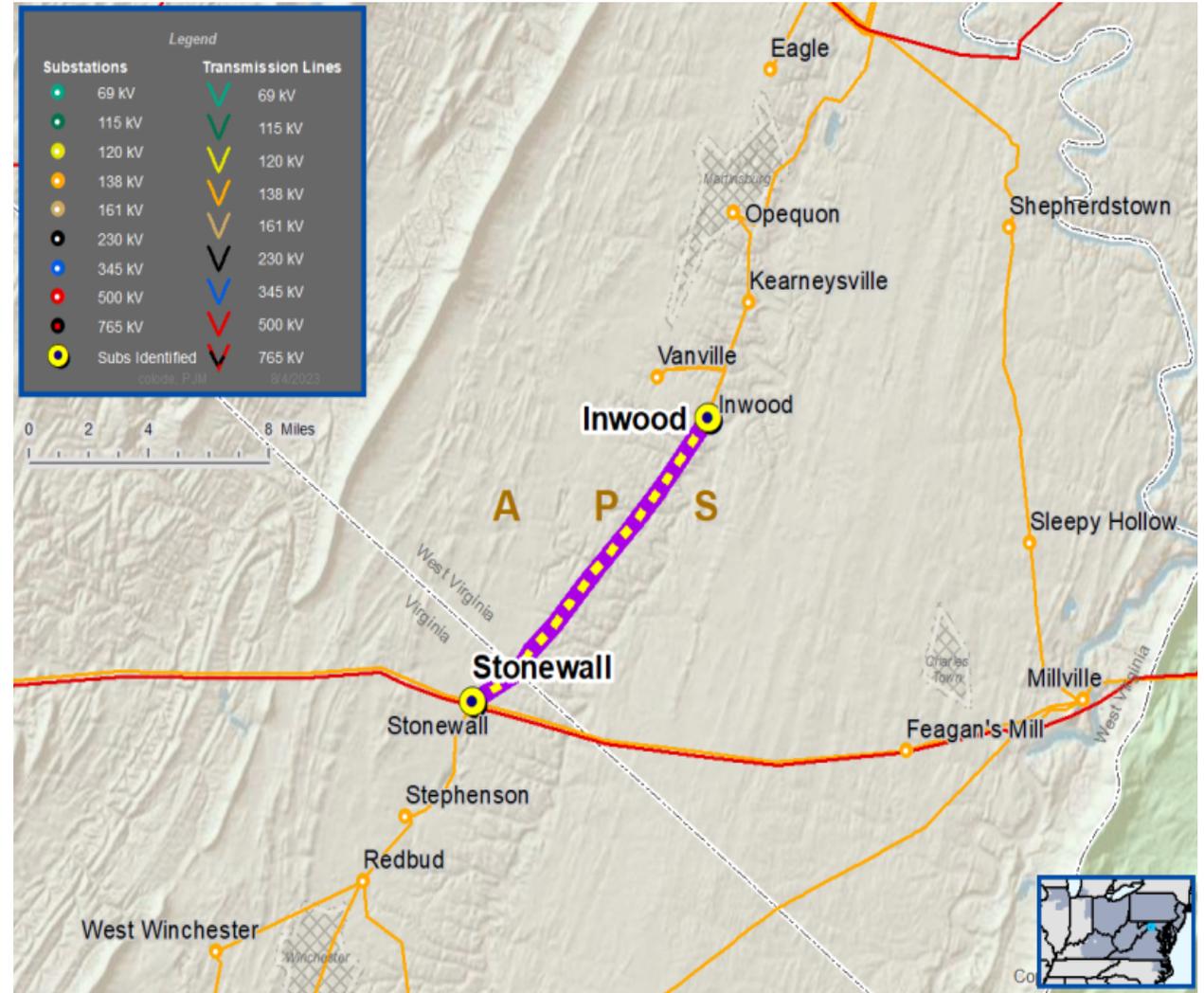
New customer connection request will be evaluated per FirstEnergy’s “Requirements for Transmission Connected Facilities” document and “Transmission Planning Criteria” document.

Problem Statement

New Customer Connection – Potomac Edison Distribution has requested a new 138 kV delivery point near the Inwood – Stonewall 138 kV Line. The anticipated load of the new customer connection is 12 MVA.

Requested In-Service Date:

2/23/2024



Need Number: APS-2023-040

Process Stage: Need Meeting 8/18/2023

Project Driver(s):

- Equipment Material Condition
- Performance and Risk

Specific Assumption Reference(s)

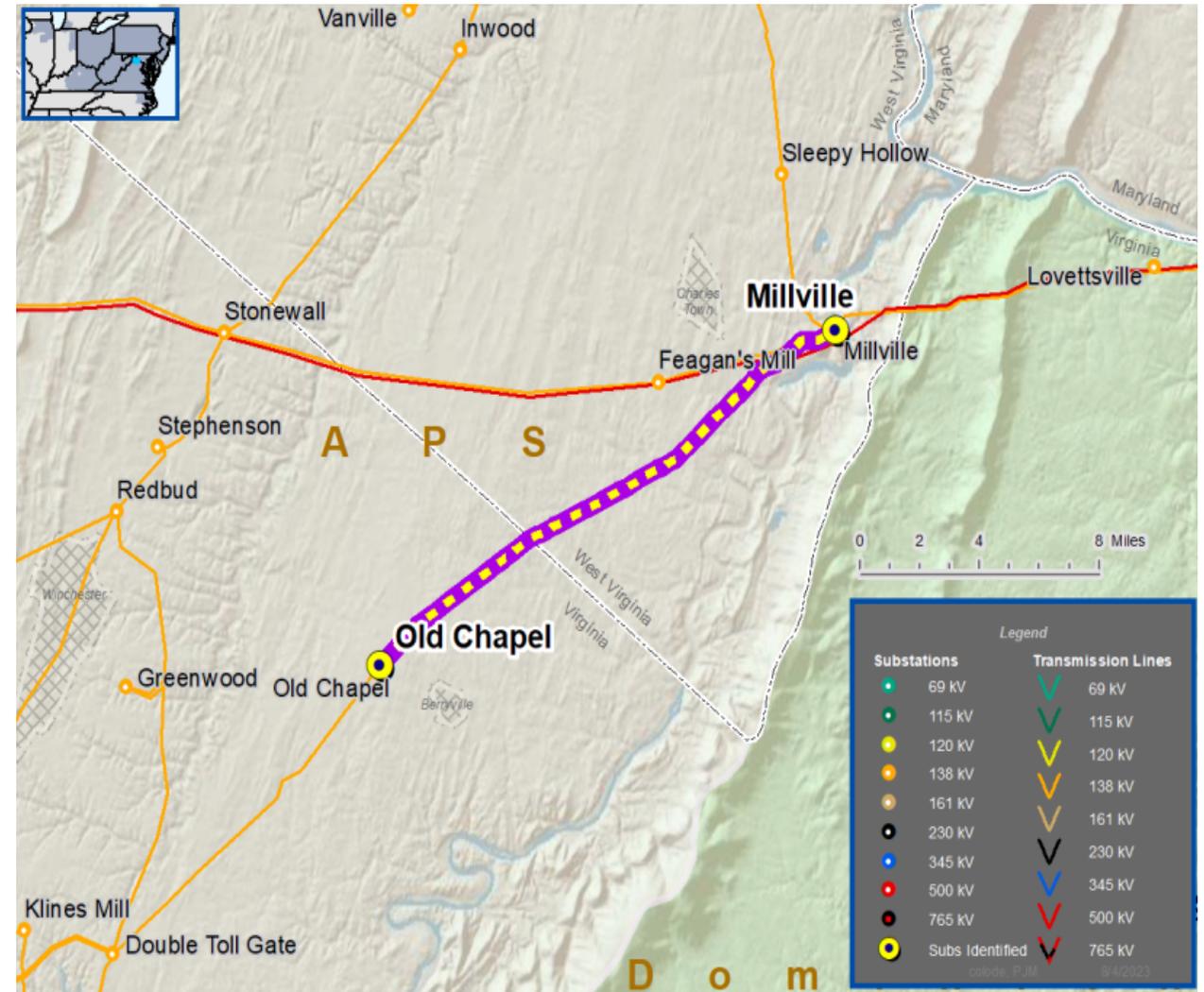
- Substation Condition Rebuild/Replacement
- Substation/line equipment limits

Problem Statement

- Existing switches at Millville Substation cannot be operated reliably.
 - Severe alignment issues result in improper closures, requiring a hammer to manually close, resulting in a safety issues
 - Switch mounting insulators often break during this process, resulting in live parts falling, creating potential safety incidents and system faults.

The Old Chapel – Millville 138 kV line is limited by terminal equipment

- Existing line rating:
 - 299/358/353/410 MVA (SN/SE/WN/WE)
- Existing conductor rating:
 - 353/406/353/428 MVA (SN/SE/WN/WE)



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: APS-2023-027

Process Stage: Solution Meeting 8/18/2023

Previously Presented: Need Meeting 7/21/2023

Project Driver(s):

- Equipment Material Condition
- Performance and Risk

Specific Assumption Reference(s)

- Substation Condition Rebuild/Replacement
- Substation/line equipment limits

Problem Statement

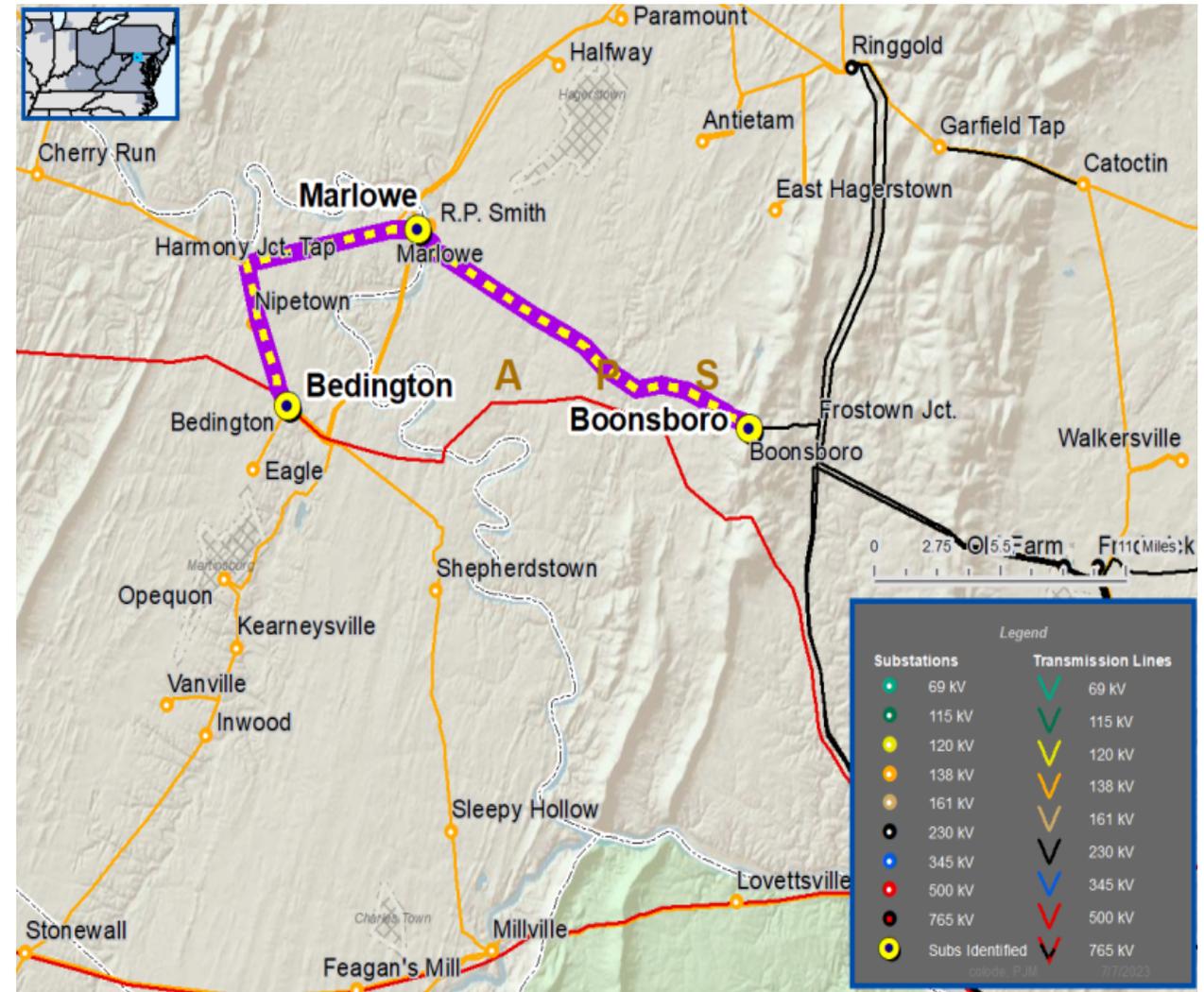
- Existing switches are beyond reliable operation.
 - Severe alignment issues result in improper closures, requiring a hammer to manually close, resulting in a safety issues
 - Switch mounting insulators often break during this process, resulting in live parts falling, creating a potential accidents and system faults.

The Boonsboro – Marlowe 138 kV line is limited by Substation conductor

- Existing line rating:
 - 300/358/349/410 MVA (SN/SE/WN/WE)

The Bedington – Marlowe 138 kV line is limited by Substation conductor

- Existing line rating:
 - 265/349/349/410 MVA (SN/SE/WN/WE)



Need Number: APS-2023-027

Process Stage: Solution Meeting 08/18/2023

Proposed Solution:

- At Marlowe Substation:
 - On the Boonsboro 138 kV line exit, replace:
 - 1200 A manual disconnect switches with (2) 2000 A motor-operated disconnect switches
 - Limiting substation conductor
 - On the Bedington BMA 138 kV line exit, replace:
 - 1200 A manual disconnect switches with (2) 2000 A motor-operated disconnect switches
 - Limiting substation conductor

Transmission Line Ratings:

- Boonsboro – Marlowe 138 kV Line
 - Before Proposed Solution: 300 / 358 / 349 / 410 MVA (SN / SE / WN / WE)
 - After Proposed Solution: 300 / 358 / 369 / 410 MVA (SN / SE / WN / WE)
- Bedington – Marlowe BMA 138 kV Line
 - Before Proposed Solution: 265 / 349 / 349 / 410 MVA (SN / SE / WN / WE)
 - After Proposed Solution: 265 / 349 / 349 / 435 MVA (SN / SE / WN / WE)

Alternatives Considered:

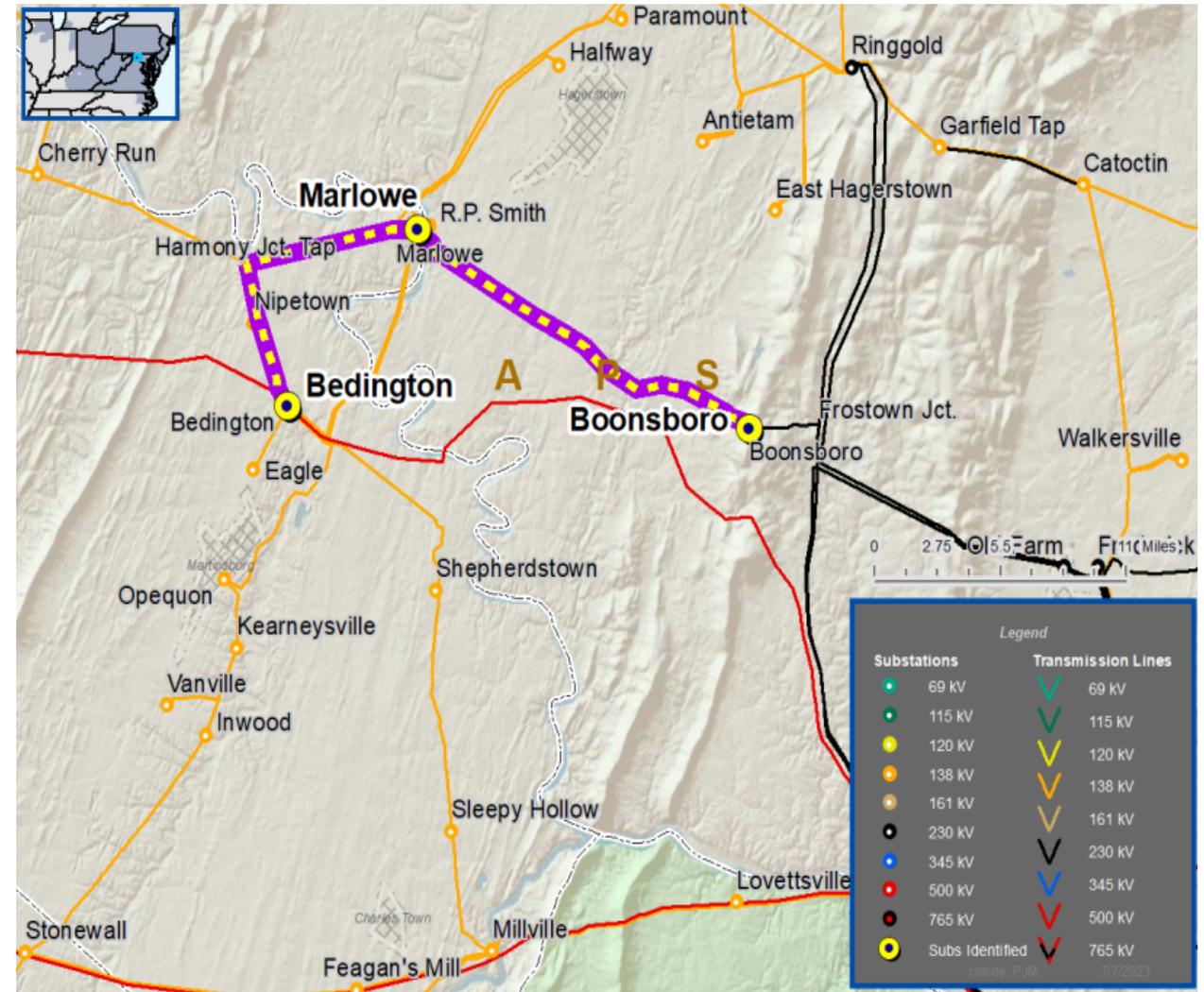
- No other solutions considered.

Estimated Project Cost: \$ 0.3 M

Projected In-Service: 10/27/2023

Project Status: Construction

Model: 2022 RTEP model for 2027 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

8/8/2023– V1 – Original version posted to pjm.com