

Transmission Expansion Advisory Committee FirstEnergy Supplemental Projects

March 4th, 2025

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-2025-003

Process Stage: Need Meeting 03/04/2025

Project Driver:

Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

- System Performance Projects Global Factors
- Substation/line equipment limits
- System reliability and performance
- Substation Condition Rebuild/Replacement
- Upgrade Relay Schemes
- Obsolete and difficult to repair communication equipment (DTT, Blocking, etc.)
- Communication technology upgrades

Problem Statement:

FirstEnergy has identified protection schemes using a certain vintage of relays and communication equipment that have a history of misoperation on the Eaglehead - Monocacy 230 kV Line.

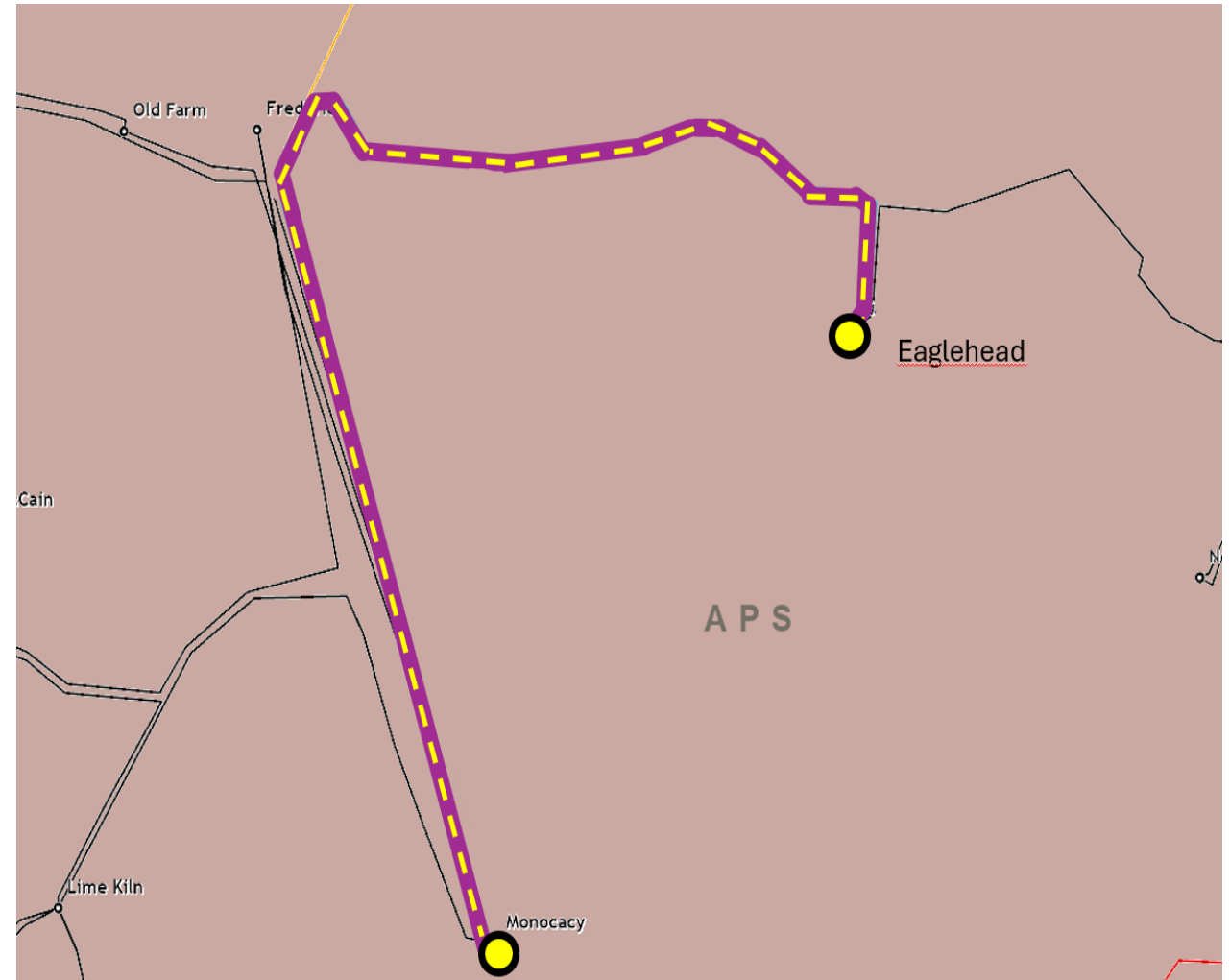
Proper operation of the protection scheme requires all the separate components perform adequately during a fault.

In many cases the protection equipment cannot be repaired due to a lack of replacement parts and available expertise in the outdated technology.

Transmission line ratings are limited by terminal equipment:

- Existing line ratings: 548 / 688 / 699 / 797 MVA SN/SE/WN/WE
- Existing conductor ratings: 617 / 754 / 699 / 894 MVA SN/SE/WN/WE

APS Transmission Zone M-3 Process Eaglehead - Monocacy 230 kV Line



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

2/20/2025– V1 – Original version posted to pjm.com