Subregional RTEP Committee – Western FirstEnergy Supplemental Projects

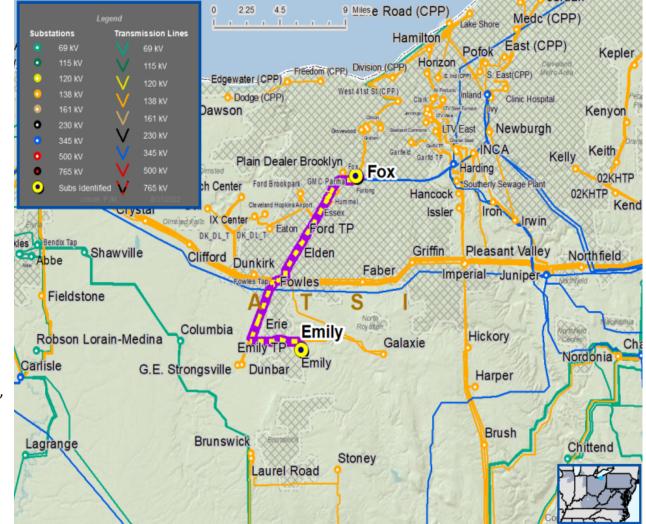
September 16, 2022

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



ATSI Transmission Zone M-3 Process Emily – Fox 138 kV Q14 Line



Need Number: Process Stage: ATSI-2022-023 Need Meeting – 09/16/2022

Supplemental Project Driver(s):

Equipment Material Condition, Performance, and Risk Infrastructure Resilience

Specific Assumption Reference(s):

Global Factors

- System Reliability and Performance
- Increase line loading limits
- Age/condition of transmission line conductors
- Line Condition Rebuild/Replacement

Problem Statement

 During inspection of the Emily-Fox 138 kV Line (approximately 19 miles), seven (7) wood pole structures failed sound testing and/or decay has been noted, as well as miscellaneous broken insulators, missing or broken grounds, hardware, braces, climbing pegs, etc



Need Number:ATSI-2022-025Process Stage:Need Meeting - 09/16/2022

Supplemental Project Driver(s): Operational Flexibility and Efficiency Equipment Material Condition, Performance, and Risk Infrastructure Resilience

Specific Assumption Reference(s) Global Factors

- System Reliability and Performance
- Load at risk in planning and operational scenarios
- Upgrade Relay Schemes Protection Systems with single points of failure
- Substation/line Equipment Limits

Problem Statement

The existing Fowles Substation's 138 kV No. 1 and No. 3 bus protection is a single scheme with no redundancy.

ATSI Transmission Zone M-3 Process Fowles 138 kV Substation





Need Number:

Process Stage:

ATSI Transmission Zone M-3 Process Midway 138 kV Substation

vvestgate 2.5 5 10 Miles Silica Reynolds Transmission Lines Substations Bell University of Toledo 69 KV Vulcar Vulcan Tap/ Federal Mogu Wentworth Pilkin Liquid Air Medical College Fulton 0 Meadowlark Eber Johnson Controls Pilkingt Hawthorne Gould re Fresh Farms Swanton Ford Motor Maumee Sh Delta Dana ASG Tech St Lukes Hospital • Subs Identified Steel Lynch Lime Johns Manville Dutch Levis Park Whitehouse Rexam Delafoil Α Waterville Five Point Midway Dowling Brim Tap Naomi Jct New Liberty Midway Napoleon Muni Liberty Center Grand Rapids Brim Bowling Green 5 Tontogany Weston Tap Napoleon Bowling Green 6 Campbell Soup Bowling Green Bowling G Home Depot Weston

Supplemental Project Driver(s):

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

Specific Assumption Reference(s) Global Factors

- System Reliability and Performance
- Load at risk in planning and operational scenarios
- Upgrade Relay Schemes Protection Systems with single points of failure

ATSI-2022-024

Need Meeting – 09/16/2022

• Expected service life (at or beyond) or obsolescence

Problem Statement

- The existing Midway Substation's 138 kV J and K bus protection is a single scheme with no redundancy.
- Oil Circuit Breakers ages and concerns:
 - B13301 is 40 years old.
 - B13303 is 54 years old with high dwell time.
 - B13305 is 50 years old with high dwell time.
 - B13308 is 47 years old.

High Level M-3 Meeting Schedule

Assumptions

| A | Activity | Timing |
|---|---|------------------------------------|
| Ρ | Posting of TO Assumptions Meeting information | 20 days before Assumptions Meeting |
| S | Stakeholder comments | 10 days after Assumptions Meeting |

Needs

Solutions

Submission of Supplemental Projects & Local Plan

| Activity | Timing |
|--|------------------------------|
| TOs and Stakeholders Post Needs Meeting slides | 10 days before Needs Meeting |
| Stakeholder comments | 10 days after Needs Meeting |

| Activity | Timing |
|--|----------------------------------|
| TOs and Stakeholders Post Solutions Meeting slides | 10 days before Solutions Meeting |
| Stakeholder comments | 10 days after Solutions Meeting |

| 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

09/06/2022 – V1 – Original version posted to pjm.com