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

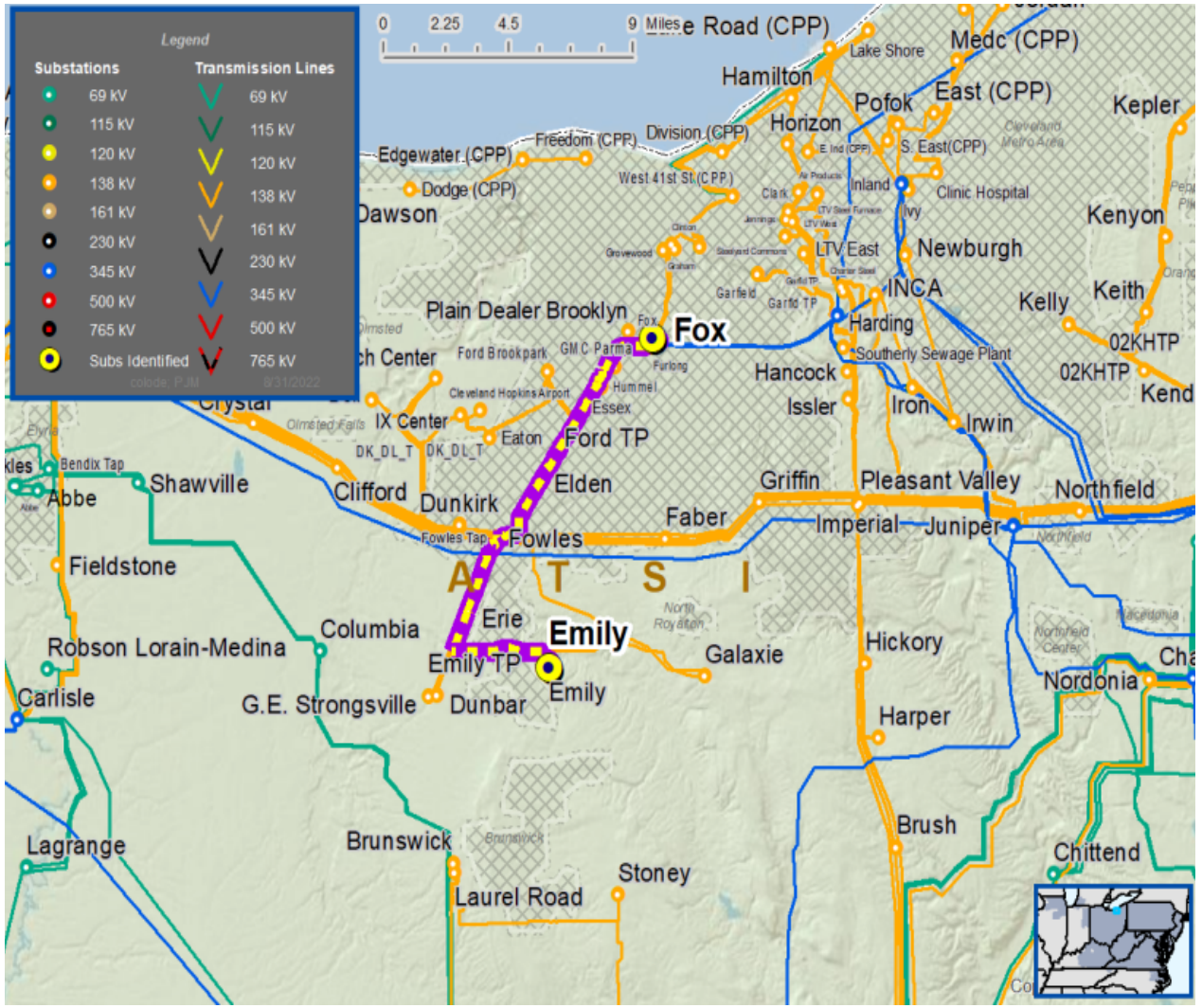
Supplemental Project Driver(s):
Equipment Material Condition, Performance, and Risk
Infrastructure Resilience

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



ATSI Transmission Zone M-3 Process
Fowles 138 kV Substation

Need Number: ATSI-2022-025

Process Stage: Need Meeting – 09/16/2022

Supplemental Project Driver(s):

Operational Flexibility and Efficiency

Equipment Material Condition, Performance, and Risk

Infrastructure Resilience

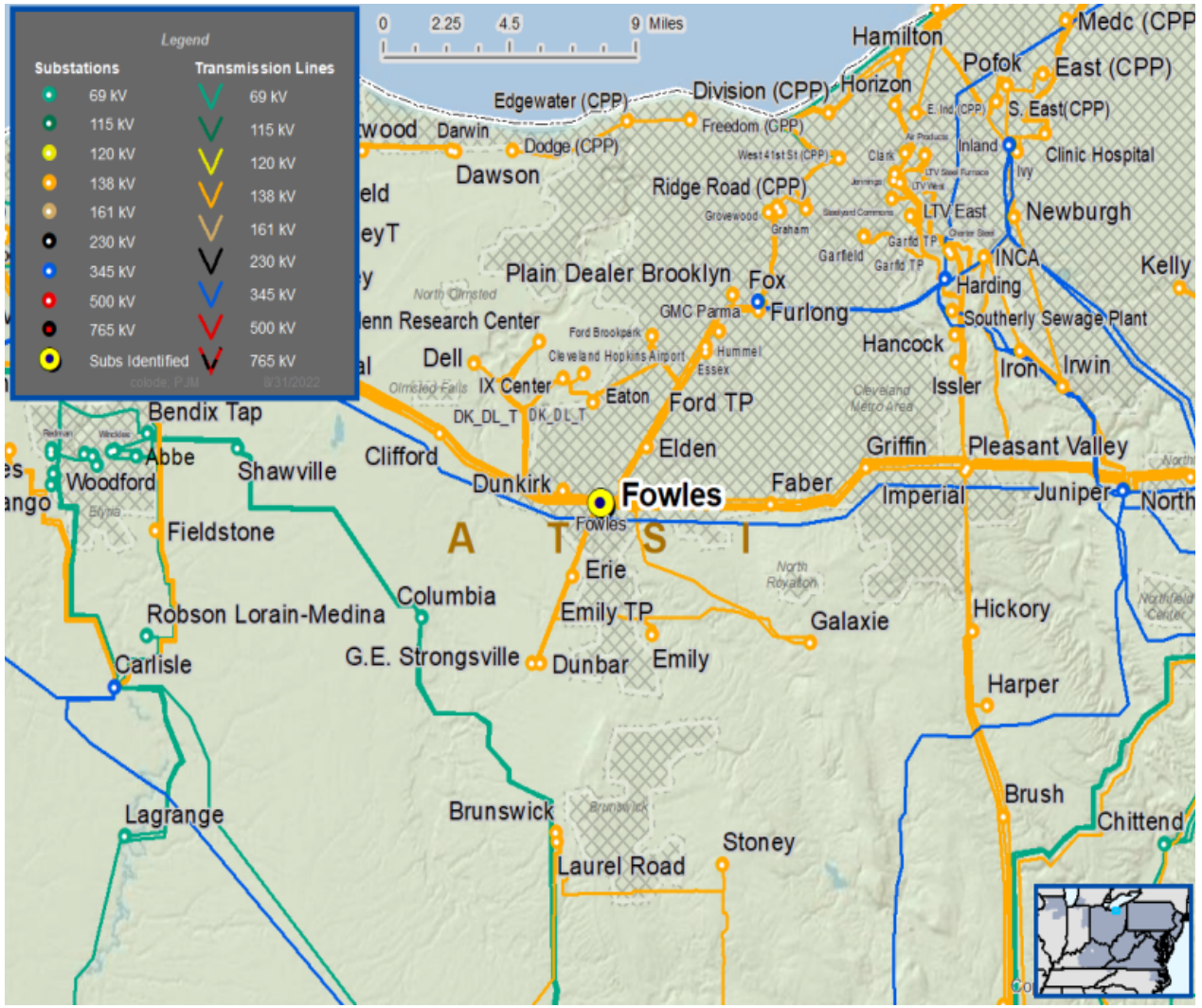
Specific Assumption Reference(s)

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
Midway 138 kV Substation

Need Number: ATSI-2022-024
Process Stage: Need Meeting – 09/16/2022

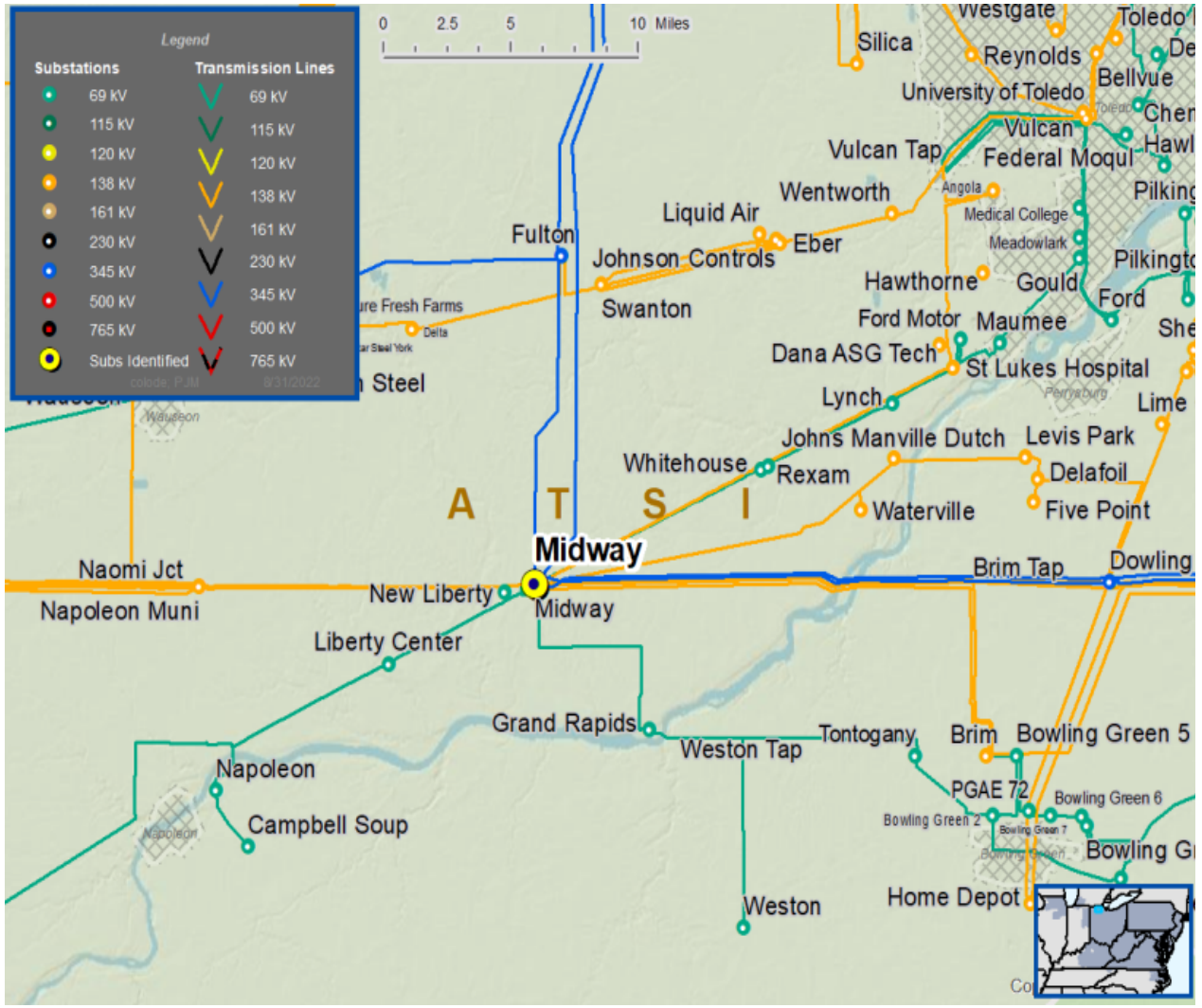
Supplemental Project Driver(s):
Operational Flexibility and Efficiency
Equipment Material Condition, Performance, and Risk
Infrastructure Resilience

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
- 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

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

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