

Transmission Expansion Advisory Committee – FirstEnergy (ATSI) Supplemental Projects

November 30, 2021

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: ATSI-2021-027
Process Stage: Need Meeting – 11/30/2021

Supplemental Project Driver(s):
Operational Flexibility and Efficiency
Infrastructure Resilience

Specific Assumption Reference(s)

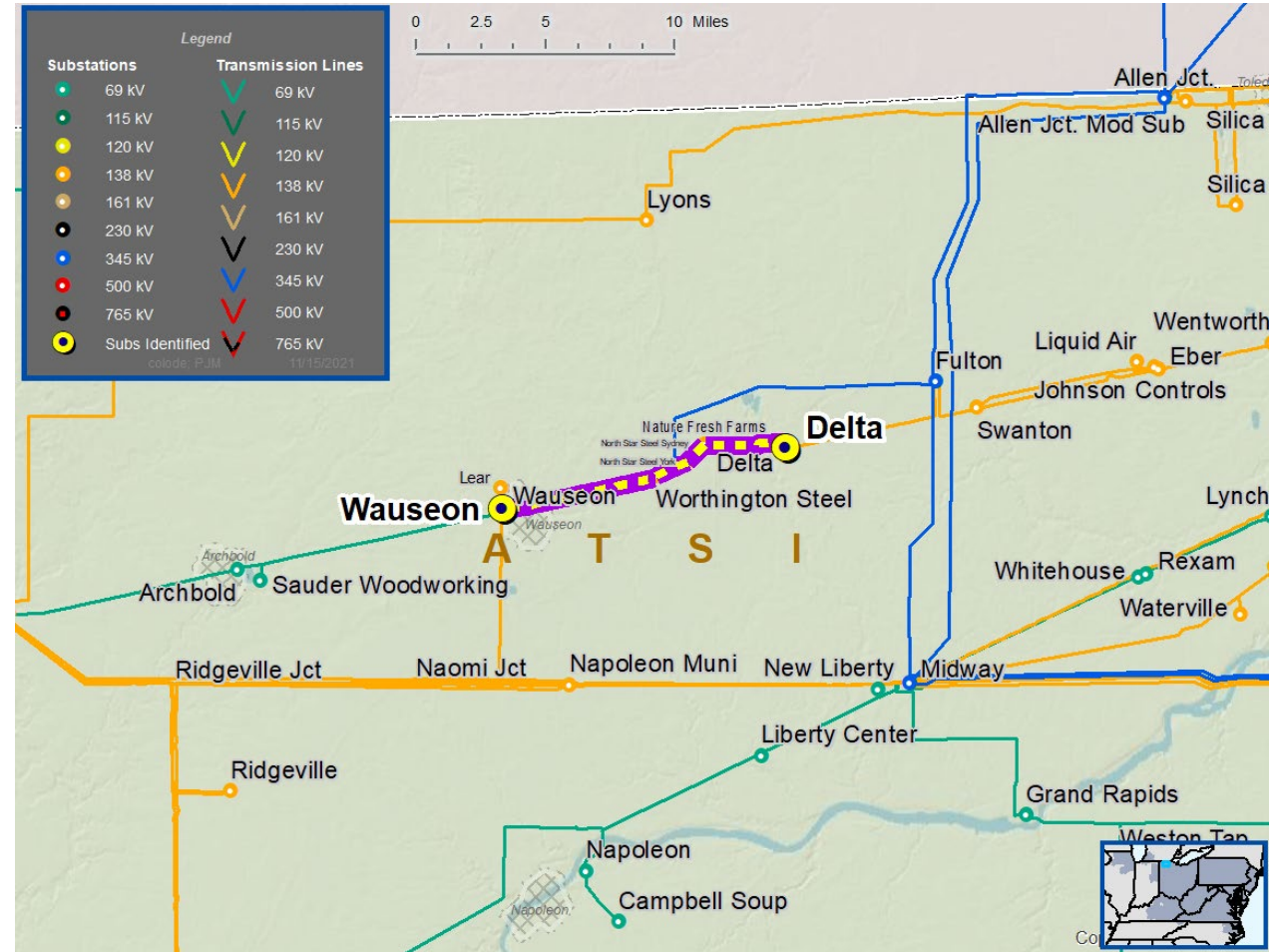
- System Reliability and Performance
- Load at risk in planning and operational scenarios
- Load and/or customers at risk on single transmission lines

Add/Expand Bus Configuration

- Loss of substation bus adversely affects transmission system performance
- Reduce amount of exposed potential local load loss during contingency conditions.
- Accommodate future transmission facilities

Add/Replace Transformers

- System concerns related to loss of an existing transformer or other contingency scenarios at a specific voltage level(s)

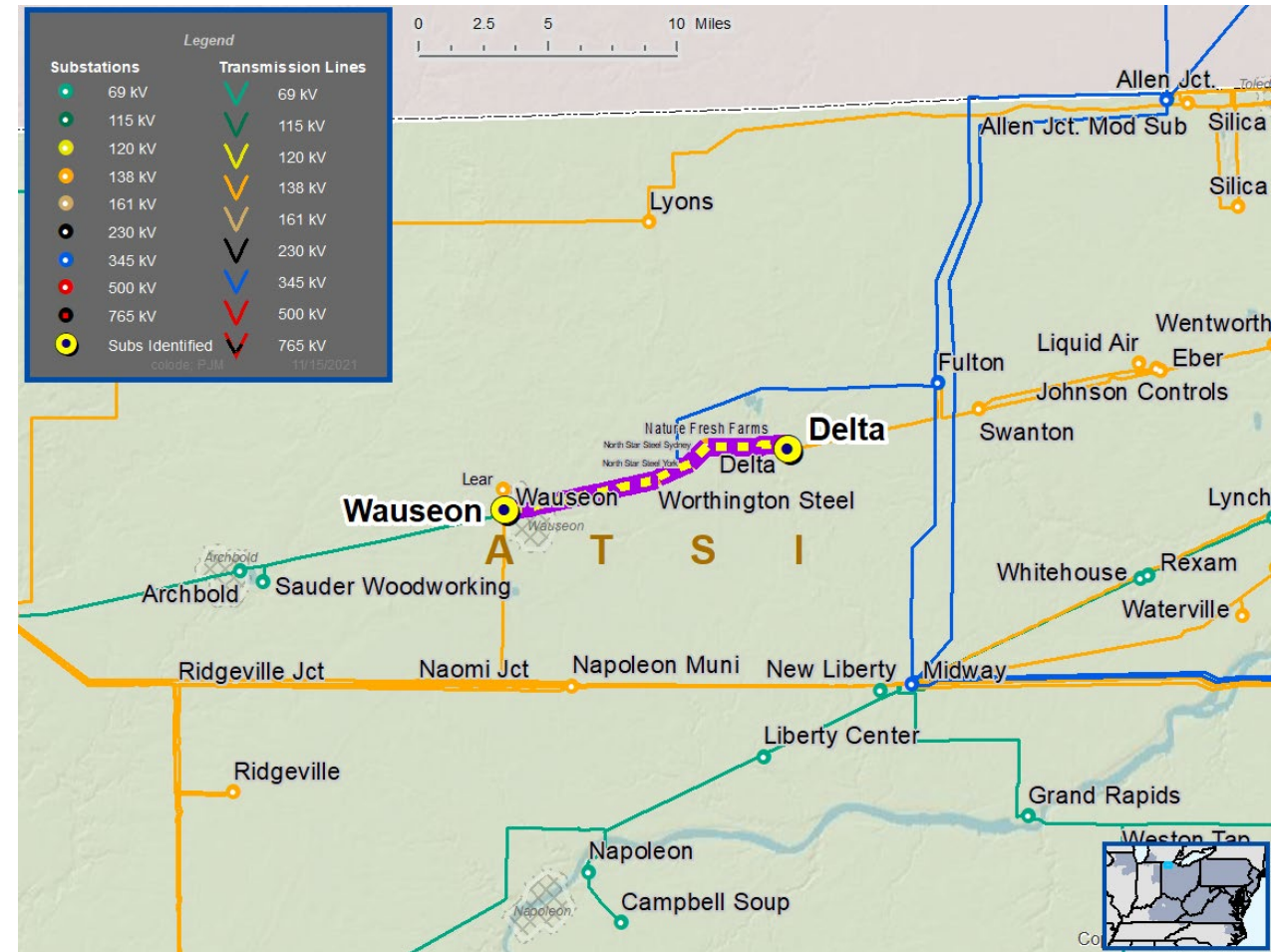


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Problem Statement

- The Delta/Wauseon area is a concentrated load pocket with future load growth expected. Existing customers planning for future load growth, and new transmission load connections in progress with load expected to grow to approximately 500 MVA and 9,000 customers in the near term.
- Under an N-1-1 contingency, post-contingency voltage on 138 kV buses is near emergency minimum of 0.92 p.u. with approximately 200 MVA and 9,000 customers at risk. Under same contingency set, and area capacitor bank off, low voltages with near voltage collapse on the 138 kV system in the area.
- Also, under an N-1-1 contingency results in voltage near criteria limits on a radial 345 kV line with approximately 300 MVA of load at risk.



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

11/23/2021 – V1 – Original version posted to pjm.com