Subregional RTEP Committee – AMPT Supplemental Projects

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

AMPT Transmission Zone M3 Process
Orrville 2nd Source

Need Number: AMPT-2023-004

Process Stage: Solution Meeting – 9/19/2025

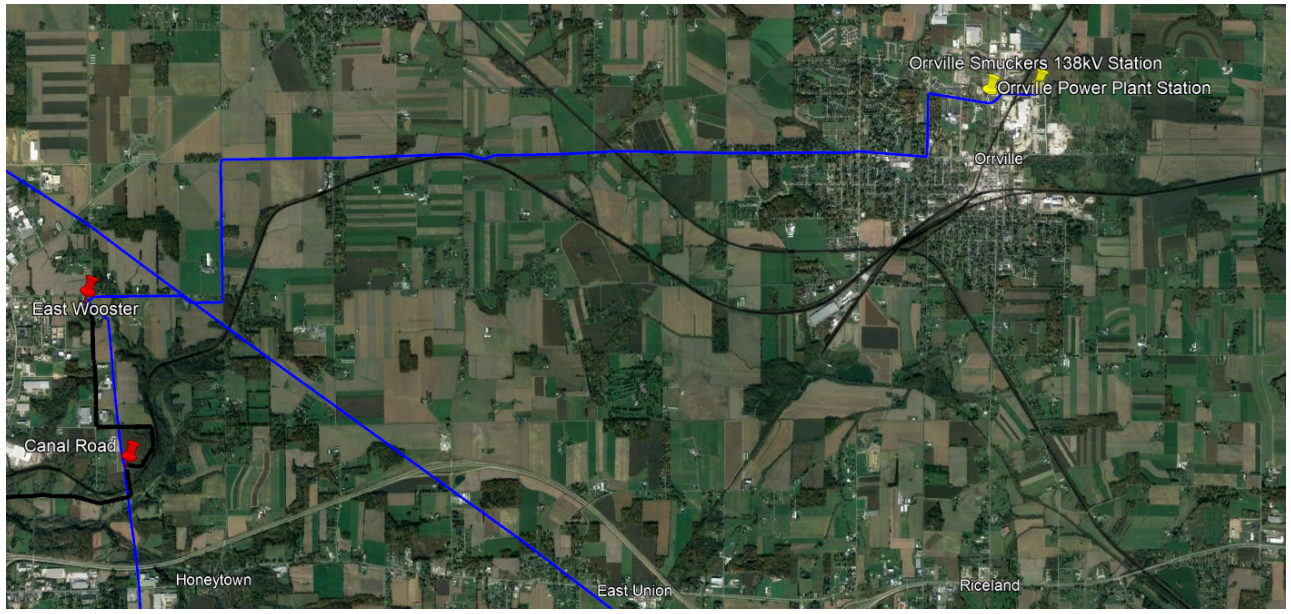
Previously presented – 09/15/2023 Needs Statement

Supplemental Project Driver(s): Operational Flexibility & Efficiency, Customer Service

Specific Assumption Reference(s): AMPT Transmission Facilities Interconnection Requirements Document

Problem Statement: The city of Orrville has two substations, which are served by a single circuit 138kV line approximately 8.92 miles in length, from AEP's East Wooster substation. The city load is 60 MW at peak.

A single contingency outage of the 8.92 mile East Wooster-Orrville 138kV line, the "P" breaker at East Wooster sub, or the 138kV straight bus at East Wooster, will outage then entire Orrville municipal system. Orrville has no other transmission source, so a permanent fault on the existing 138kV source will leave all of Orrville out of service until the failed facility can be repaired.



AMPT Transmission Zone M3 Process
Orrville 2nd Source

Need Number: AMPT-2023-004

Process Stage: Solution Meeting – 9/19/2025

Proposed Solution: Provide a 2nd transmission source to the city of Orrville from the FE Star-Cloverdale 138 kV line (total $71.7 M).

AMPT Scope ($52.8 M):

- **New 138 kV line**: Construct approx. 8 miles of from Apple Ave sub to the FE Star-Cloverdale 138 kV line. ($20.6 M)
- **Apple Ave**: Expand sub to a four-breaker ring bus design to accommodate the 2nd 138 kV circuit. ($15.2 M)
- **Mineral Springs**: Reconstruct sub at a new location to accommodate the 138 kV four-breaker ring bus. ($10.5 M)
- **Apple Ave-Mineral Springs 138kV line**: Relocate / reconstruct the to accommodate anticipated network through-flow ($ 6.5 M)

First Energy Scope ($18.4 M): **Construct a new three breaker ring bus substation**. Cut the Cloverdale-Star 138 kV Line and construct approx. 0.1 mile double circuit line loop to the new 138 kV station. Install tie line metering (ATSI/AEP) on the line terminal toward the AMPT Apple Ave station.

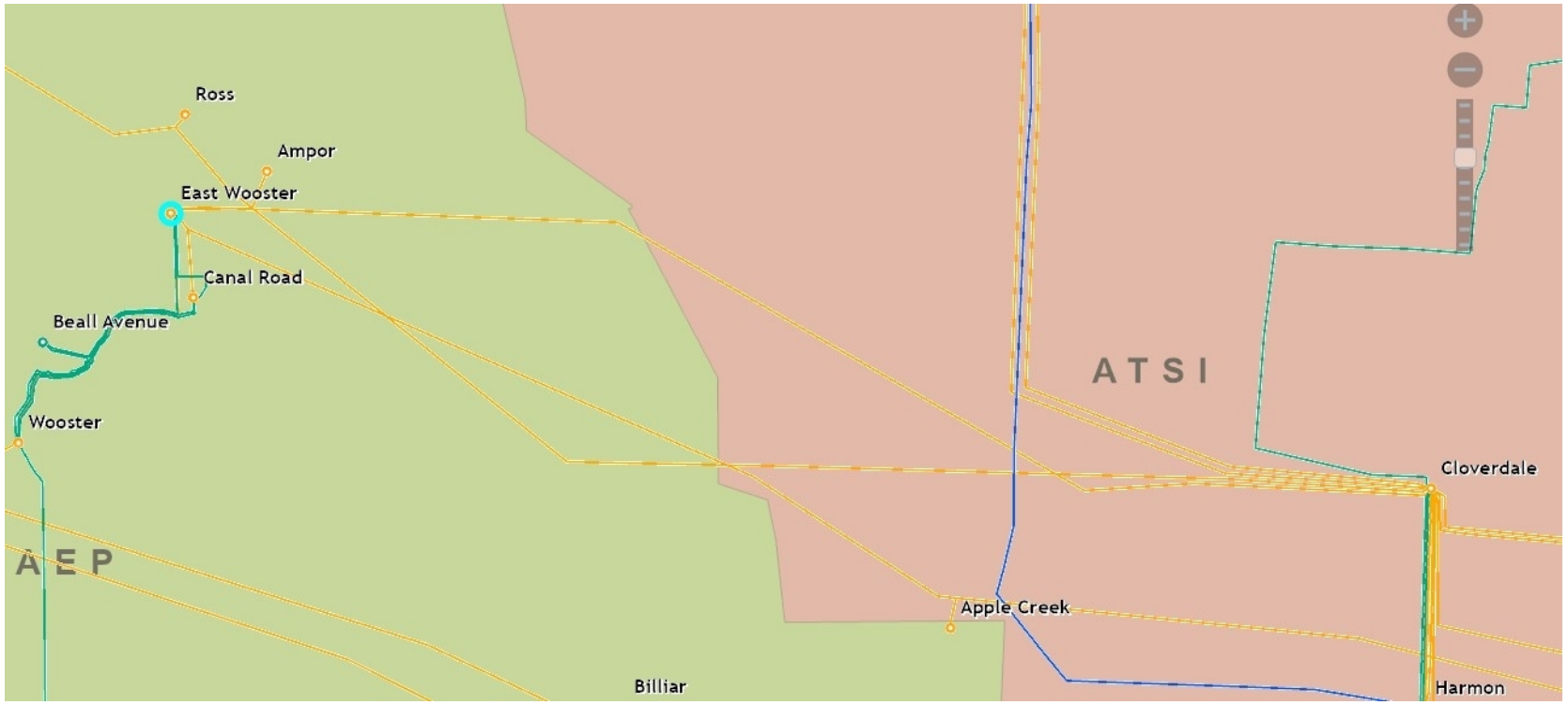
AEP Scope ($0.5 M): Upgrade metering at E. Wooster. Install new revenue metering at Mineral Springs and Apple Ave subs.

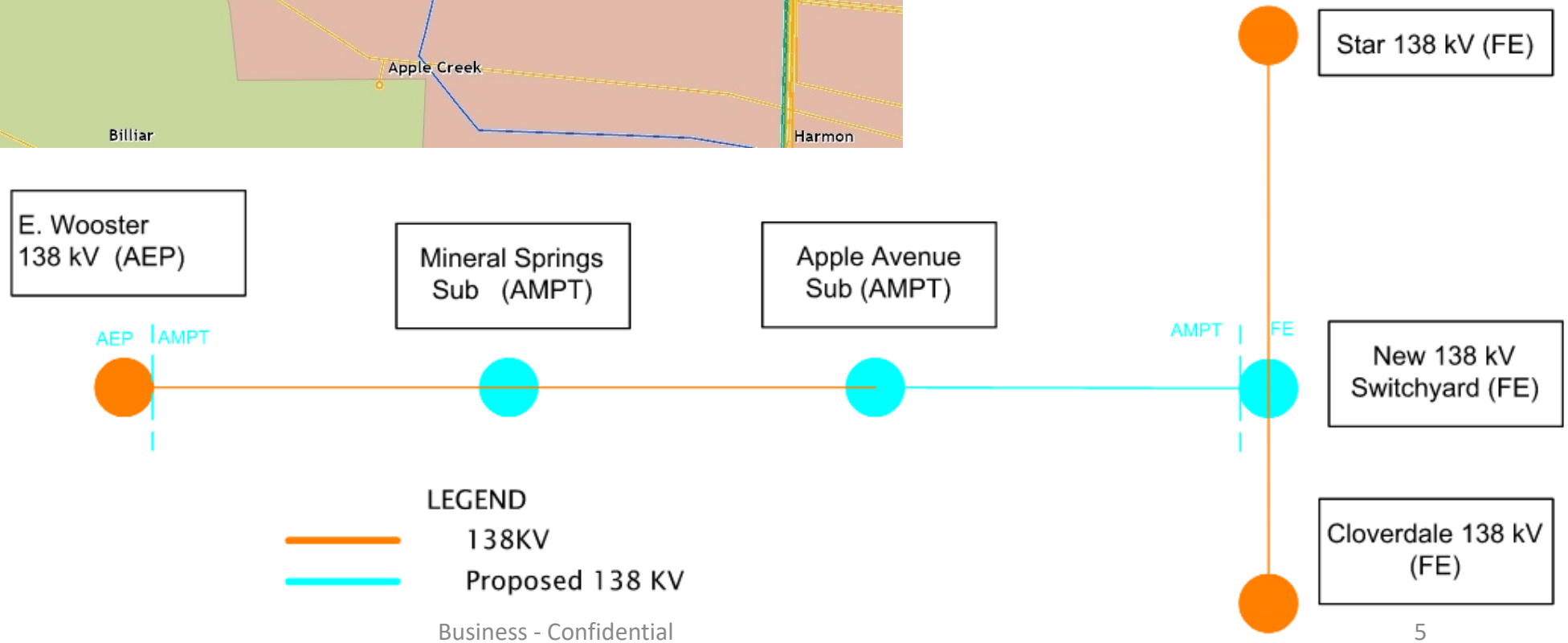
Alternative Considered: Rebuild the existing E Wooster-Mineral Springs line for double circuit to bring in the 2nd source. Not chosen because this alternative still exposes the city to an extended outage for a structure failure (P7 contingency) of the proposed DCTL.

Projected In Service Date: AMPT portion (10/2028); FE portion (08/2030); AEP portion (10/2028)

Project Status: Engineering (AMPT), Conceptual (AEP and FE)

AMPT Transmission Zone M3 Process Orrville 2nd Source





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

AMP TRANSMISSION

Revision History

9/08/2025– V1 – Original version posted to pjm.com