AMP TRANSMISSION

Subregional RTEP Committee – Western
AMPT Supplemental Projects

AMPT Projects in DAY Transmission Zone M3 Process
Versailles, OH

Need Number: AMPT-2024-001

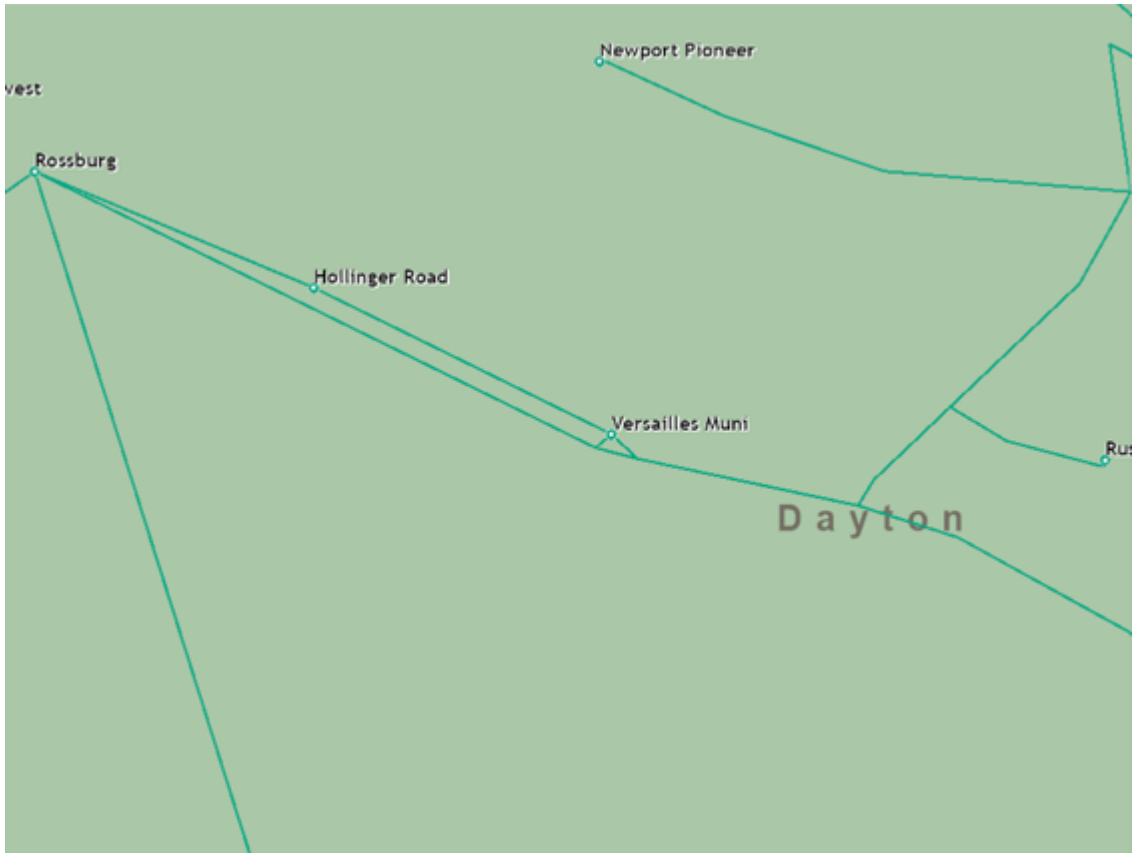
Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 05/11/2026

Previously Presented: Solution Meeting – 2/14/2025, Need Meeting – 4/19/2024

Supplemental Project Driver(s): Customer Service

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

Problem Statement:
New Customer Connection – The Village of Versailles has submitted a request for a new 69kV service point near the AMPT owned 69kV stations and transmission line, which is served off of AES' 6625 69kV line. The request was made to support new load increases in the area that totals approximately 6 MW. The City has requested an in-service date of 3/1/2027. Additionally, the village of Versailles has requested a 2nd supply to support the load. The radial supply presents a single point of failure that jeopardizes the reliability for the village. The existing interconnection is a radial 69kV tap off the 6625 69kV line. The current peak load at the Village of Versailles is 16 MW. AMPT's Transmission Facilities Interconnection Requirements specify looped facilities for loads exceeding 5 MW or 35 MW-mile radial thresholds.



AMPT Projects in DAY Transmission Zone M3 Process
Versailles, OH

Need Number: AMPT-2024-001

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 05/11/2026

Previously Presented: Solution Meeting – 2/14/2025

Supplemental Project Driver(s): Customer Service

Proposed Solution:

AMPT Identified Scope **($51.4 M)**

McGreevey Road Station: Build a new greenfield 69 kV station with two 69 kV circuit breakers and associated relays. Station should be able to accommodate one new distribution transformer. **(s3734.1)**

Water Street Station: Rebuild existing Water Street 69 kV station to a three-breaker ring bus to accommodate two 69 kV lines and one distribution transformer. **(s3734.2)**

Water Street – McGreevey Road 69 kV: Build approximately 1.2 miles of new single circuit 69kV line using 795 ACSR Drake conductor from the Water Street 69 kV sub to the new McGreevey Road sub. **(s3734.3)**

Greenlawn – McGreevey Road 69 kV: Build approximately 6.0 miles of new single circuit 69kV line using 795 ACSR Drake conductor from the Greenlawn 69 kV sub to the new McGreevey Road sub. Install line sectionalizing MOAB toward McGreevey Road. **(s3734.4)**

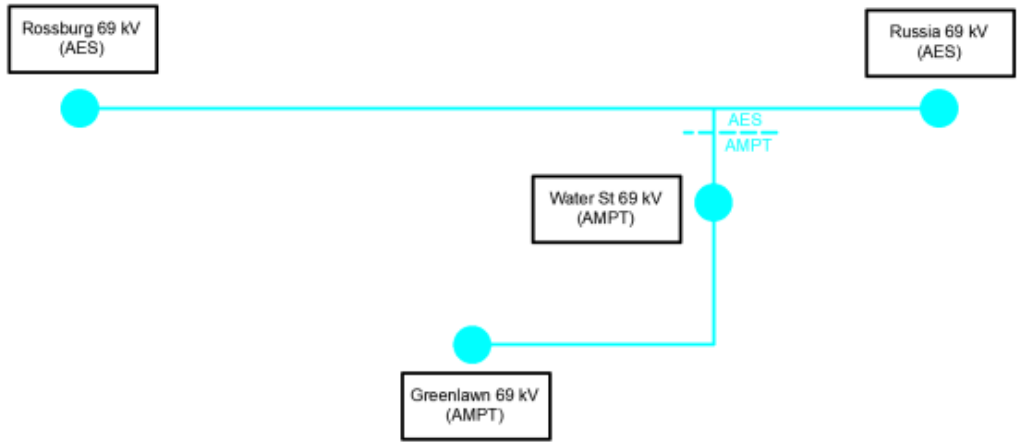
Greenlawn - Baker Road 69 kV: Build approximately .8 miles of new single circuit 69kV line using 795 ACSR Drake conductor from the Greenlawn 69 kV sub to the new McGreevey Road sub. Install a line sectionalizing MOAB toward Baker Road. **(s3734.5)**

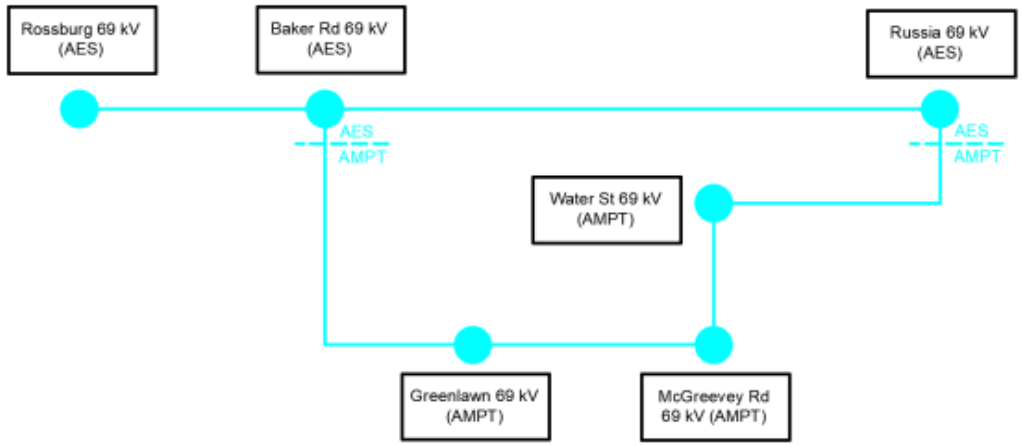
Water Street - Russia 69 kV: Build approximately 5.5 miles of new single circuit 69kV line using 795 ACSR Drake conductor from the Water Street 69 kV sub to the AES Russia sub. **(s3734.6)**

AES Identified Scope **($15.2 M)**

Baker Road Station: Build new 3 breaker ring bus at Baker Road. Retire Water Street Tap. **(s3734.7)**

Russia Station: Expand the existing ring bus at Russia substation to accommodate the new line to Water Street. **(s3734.8)**





AMPT Projects in DAY Transmission Zone M3 Process
Versailles, OH

Need Number: AMPT-2024-001

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 05/11/2026

Previously Presented: Solution Meeting – 2/14/2025

Supplemental Project Driver(s): Customer Service

Alternatives Considered:

- Bring the existing AES 69 kV Rossburg – Russia line in and out of the AMPT Water Street 69 kV station. AES transmission interconnection requirements do not allow for other TO's to own within their throughpath. This required AMPT to develop a new connection back to AES Russia.

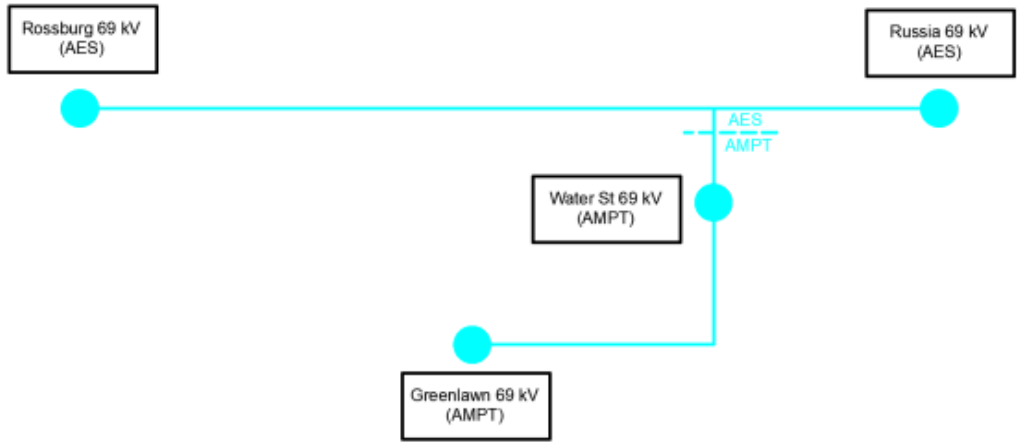
Total Estimated Transmission Cost: $66.6 M

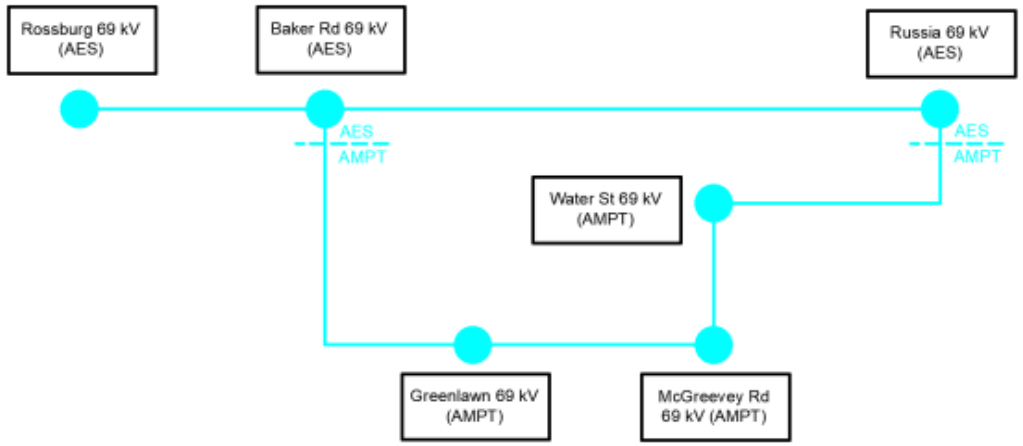
Projected In-Service: 6/30/2028

Supplemental Project ID: s3734.1 (AMPT), s3734.2 (AMPT), s3734.3 (AMPT), s3734.4 (AMPT), s3734.5 (AMPT), s3734.6 (AMPT), s3734.7 (AES), s3734.8 (AES)

Project Status:

- Engineering





AMPT Projects in ATSI Transmission Zone M3 Process
Bowling Green, OH

Need Number: AMPT-2025-003

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 05/11/2026

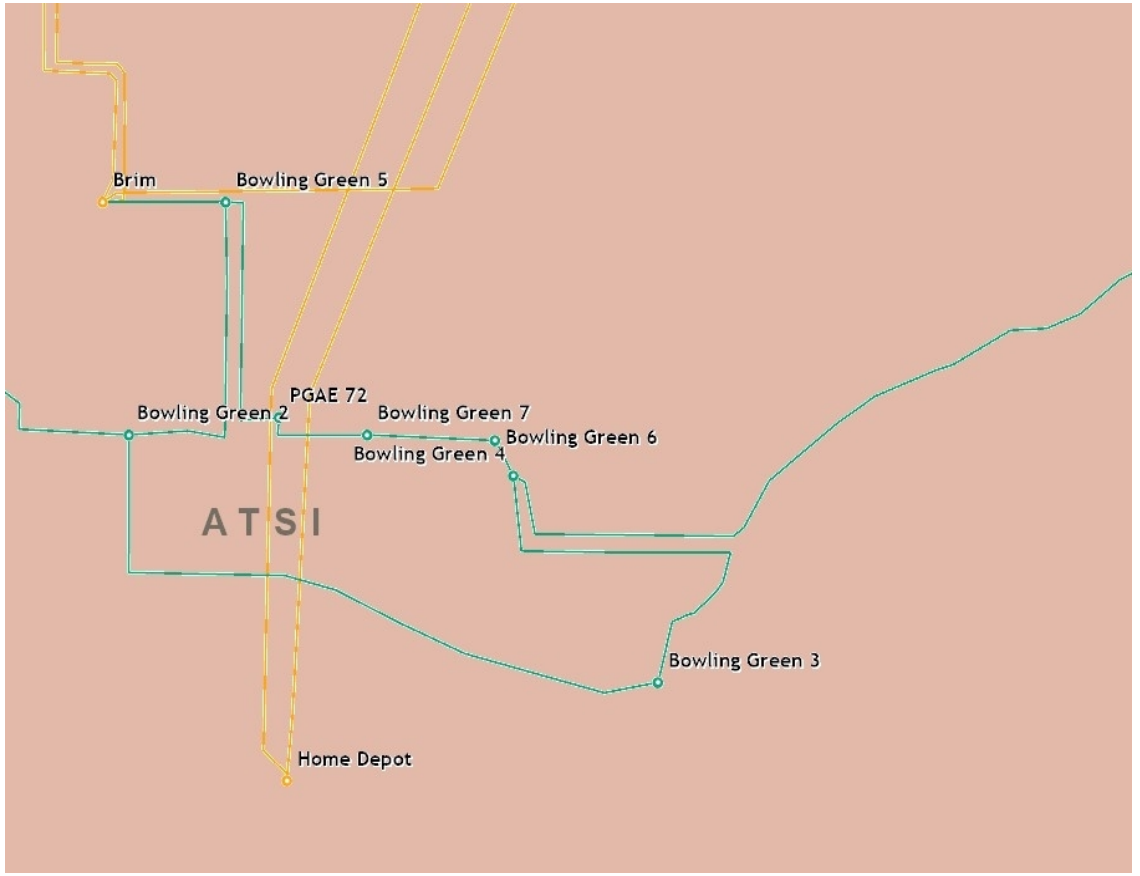
Previously Presented: Solution Meeting – 9/15/2025, Need Meeting – 6/13/2025

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

Specific Assumption Reference(s): AMPT Transmission Facilities Interconnection Requirements document, AMPT Transmission 2025 Local Planning Assumptions

Problem Statement:
Gypsy Lane's existing configuration allows for single contingencies to drop the entire station load. Additionally, both 69 kV lines exiting the substation are limited by terminal equipment. The Gypsy Lane transformers have high-side switches that require significant prep work in order to get them to open properly and are in need of replacement.

- Dec 2019, a vehicle accident caused the 69kV circuit to lock out, impacting 11,500 customers which includes 8961 customers at Sub #3 Gypsy Lane
- May 2020, a 69kV transmission line outage interrupted all 8961 customers served from Gypsy Lane for 60 minutes



AMPT Projects in ATSI Transmission Zone M3 Process
Bowling Green, OH

Need Number: AMPT-2025-003

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 05/11/2026

Previously Presented: Solution Meeting – 9/15/2025

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

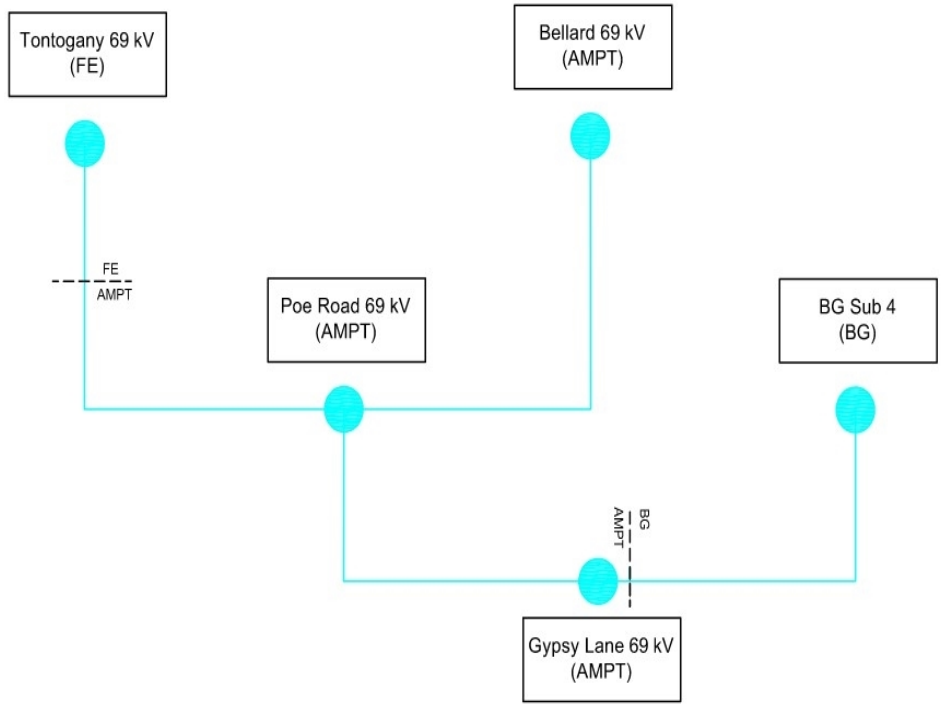
Proposed Solution:

AMPT Identified Scope **($3.2 M)**

Gypsy Lane (Sub3) Station: Add one (1) new 69 kV bus tie-breaker and two (2) new 69 kV circuit switchers on the high-side of the distribution transformers and associated relaying. Upgrade all station equipment, including but not limited to, bus conductor, breaker leads, and switches so all series elements on the 69 kV are greater than or equal to 1200 A. Addition of bus-tiebreaker and circuit switchers will add new zones of protection to limit the overall tripping footprint of bus and transformer faults. Estimated Cost: $3.2 M (s3767.1)

Alternatives Considered:

- No viable alternatives identified.



Total Estimated Transmission Cost: $3.2M

Projected In-Service: 10/30/2027

Supplemental Project ID: s3767.1 (AMPT)

Project Status:

- Pre-Engineering

AMPT Projects in AEP Transmission Zone M3 Process
Orrville, OH

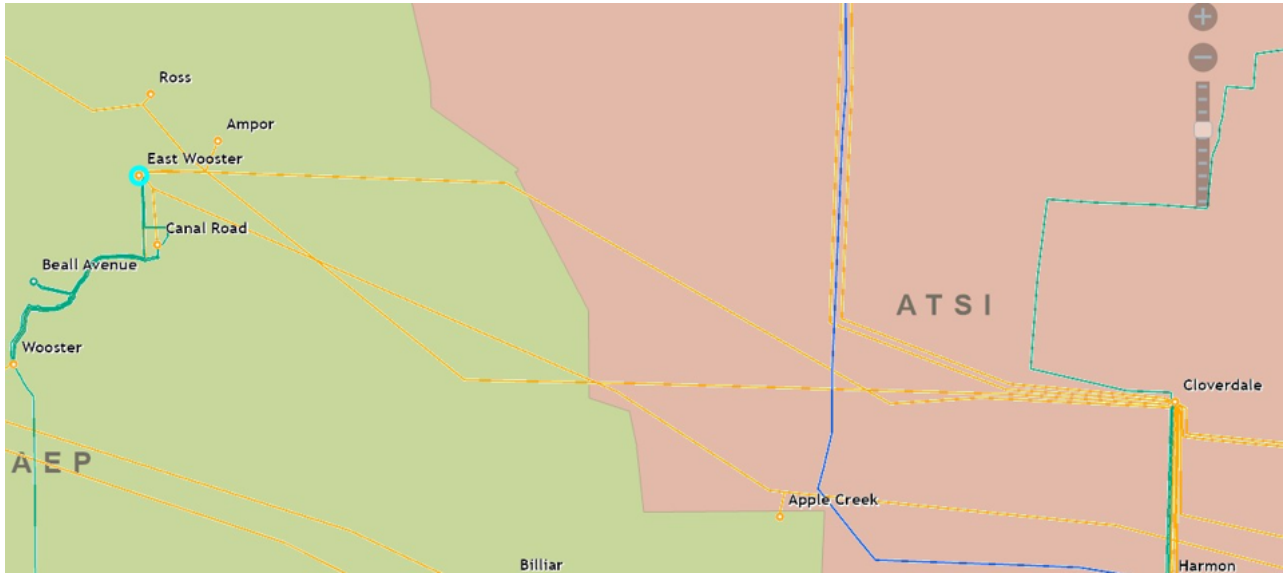
Need Number: AMPT-2023-004

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 05/11/2026

Previously Presented: Solution Meeting – 9/19/2025, Need Meeting – 3/17/2023

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

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 will interrupt the entire Orrville municipal system. Orrville has no other transmission source, so a bolted fault on the existing 138kV source will leave all of Orrville out of service until the failed facility can be repaired.

AMPT Projects in AEP Transmission Zone M3 Process
Orrville, OH

Need Number: AMPT-2023-004

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 05/11/2026

Previously Presented: Solution Meeting – 9/19/2025

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

Proposed Solution:

AMPT Identified Scope ($49.841 M)

Apple Ave- FE yard 138kV line: Construct a new 138kV line from Apple Ave sub to FE's new switchyard on the Star-Cloverdale line. **(s3832.1)**

Apple Ave: expand substation: Expand Apple Ave sub to accommodate the new 138kV line to First Energy. **(s3832.3)**

Mineral Springs: reconstruct substation: Rebuild Orrville's Power Plant sub at a new location, to be called Mineral Springs sub. Construct a 4-cb 138 kV ring bus to terminate the two 138 kV lines and two 138/13 kV transformers. Work to include grading, fence, and new control house. The existing Power Plant sub has no space for the required 138 kV infrastructure. **(s3832.4)**

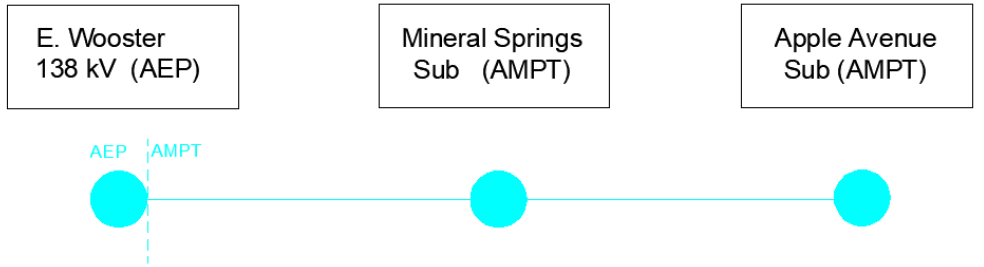
Apple Ave-Mineral Springs 138 kV line rebuild: Relocate and reconstruct the 138 kV line between Apple Ave and Mineral Springs subs. **(s3832.5)**

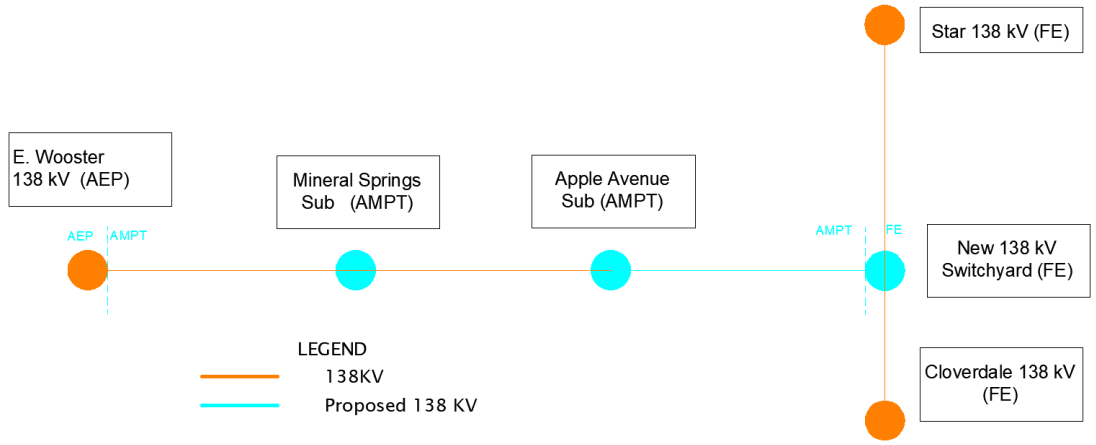
ATSI Identified Scope ***($18.4 M)***

New FE switchyard: Construct a 138kV switchyard, intersecting the Star-Cloverdale 138 kV line. Provide a line terminal for the new Apple Ave-(new FE sub) line**. (s3832.2)**

AEP Identified Scope ***($0.5 M)***

AEP East Wooster substation: Existing metering on the E Wooster-Orrville line (today's line name) is limited to 69 MVA, due to revenue metering at E Wooster sub. AEP to replace revenue metering at E Wooster, with Interconnection metering. CT's will be rated for higher than the 138kV line capacity. **(s3832.6)**





AMPT Projects in AEP Transmission Zone M3 Process
Orrville, OH

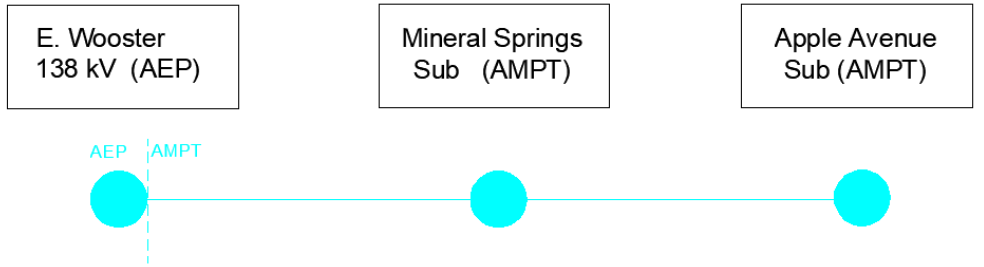
Need Number: AMPT-2023-004

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 05/11/2026

Previously Presented: Solution Meeting – 9/19/2025

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

Alternatives Considered:
Providing a 2nd source from the Star-Cloverdale line is the most economically feasible alternative.
The Brookside-Cloverdale line is approximately the same distance away from Orrville, but would entail a more difficult line siting project due to crossing through more populated suburban areas.
Rebuilding the existing E Wooster-Orrville 138kV line for double circuit would still expose the city of Orrville to a complete outage for a P7 (DCTL) loss of the new DCTL line, with no restoration of load until line repairs are made.



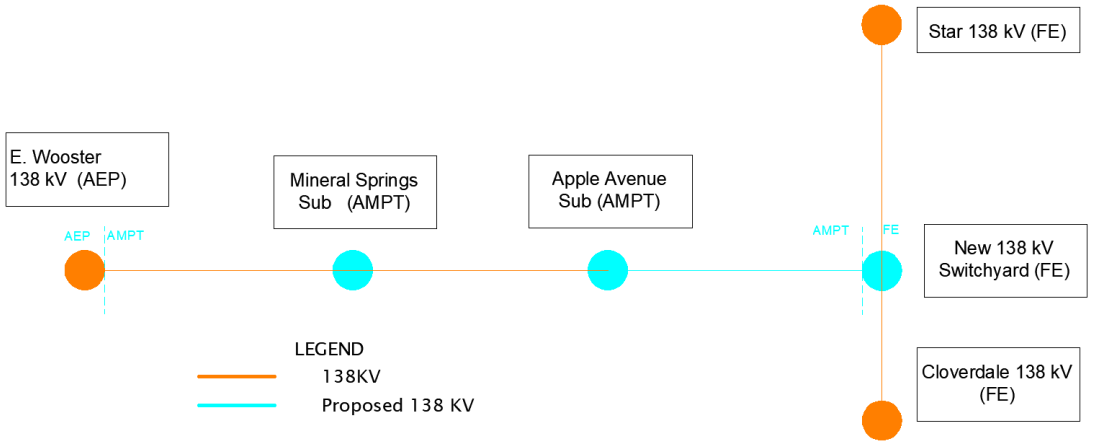
Total Estimated Transmission Cost: $68.741M

Projected In-Service: 8/30/2030

Supplemental Project ID: s3832.1 (AMPT), s3832.2 (ATSI), s3832.3 (AMPT), s3832.4 (AMPT), s3832.5 (AMPT), s3832.6 (AEP)

Project Status:

- Engineering



AMPT Transmission Zone M3 Process Niles Central 138 kV substation

Need Number: AMPT-2025-005

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 08/14/2026

Previously Presented: Solution Meeting SRRTEP-W - 01/16/2026
. Need Meeting – 06/13/2025

Project Driver:
Equipment Condition/Performance/Risk
Operational Flexibility and Efficiency

Specific Assumption References:
- AMPT's Transmission Facilities Interconnection Requirements document
- AMPT Transmission 2025 Local Planning Assumptions

Problem Statement:
At AMPT's Niles Central 138 kV substation, a single breaker failure of the 138 kV tiebreaker results in the loss of all load within the Niles municipality. Existing legacy electromechanical relays are in need of replacement to reduce the risk of misoperations. The dead-end foundations for the 138 kV lines at Niles Central substation are corroding and at risk of failure.
Niles Central serves 63 MW of load, approximately 12,600 customers.
The sub was constructed in 1975, and the R&C facilities are 50 years old.

AMPT Transmission Zone M3 Process
Niles Central 138 kV substation

Need Number: AMPT-2025-005

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 08/14/2026

Proposed Solution:
Niles Central Substation:

- Reconfigure the existing Niles Central 138 kV station into a four (4) circuit breaker ring bus by installing one (1) new 138 kV circuit breaker and relocate the existing 138 kV CB "B-20" to create a new line terminal towards Niles (ATSI).
- Expand the two existing in-line bus configurations to create a ring bus configuration.
- Install five (5) new 138 kV circuit switchers on the high-side of the distribution transformers to ensure a transformer fault does not take out a portion of the 138 kV ring bus.
- Demolish switches, busses, and trenching due to age of these pieces of equipment.
- Upgrade the vintage protection systems (including new control house) to meet modern utility standards. (**Estimated Cost: $11.7 M)**

McDonald Steel - Niles Central 138 kV Line:

- Reroute the existing McDonald Steel - Niles Central 138 kV line to terminate in a new position in the Niles Central 138 kV ring bus.
- Upgrade remote end relays and/or relay settings. **(Estimated Cost: $2.4 M)**

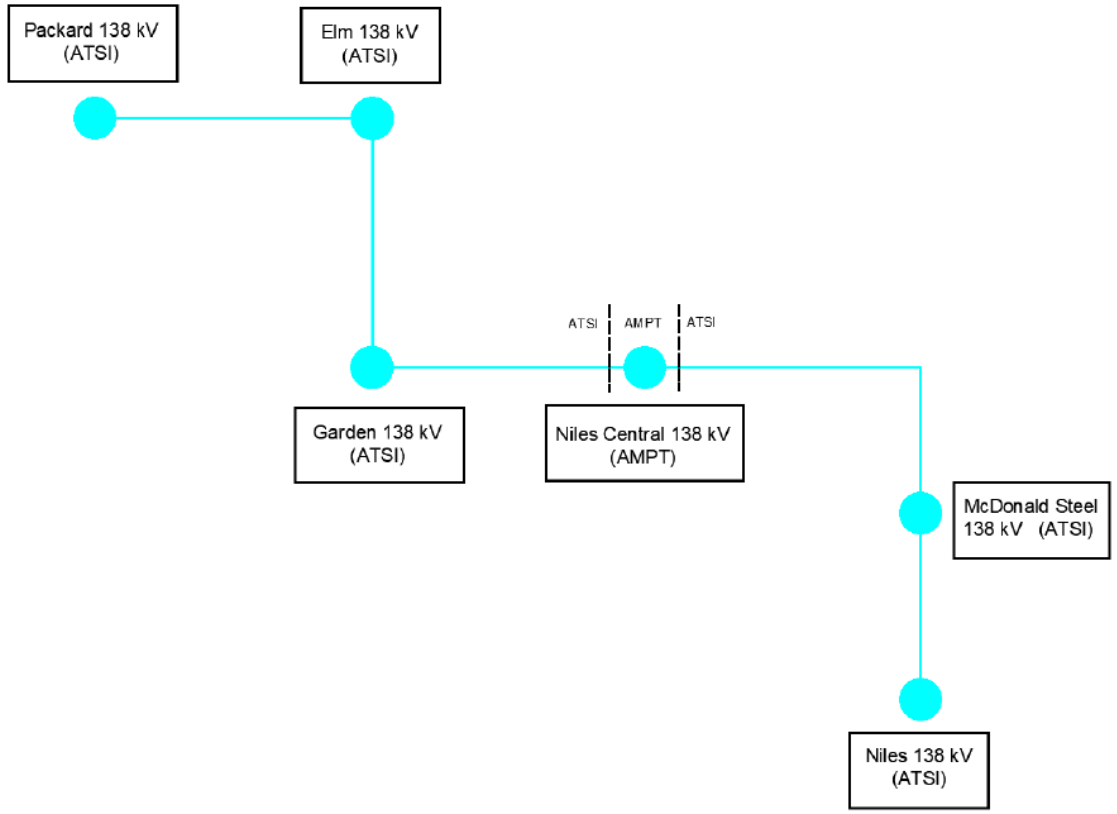
Alternatives Considered:
Rebuild entire 138 kV station as a new greenfield station. Not chosen due to cost.

Estimated Project Cost: $14.1M

Projected In-Service: 08/01/2028

Supplemental Project ID: s3888.1 (AMPT) & s3888.2 (ATSI)

Project Status: Pre-Engineering



AMPT Transmission Zone M3 Process Poe Road - Tontogany 69 kV line

Need Number: AMPT-2025-004

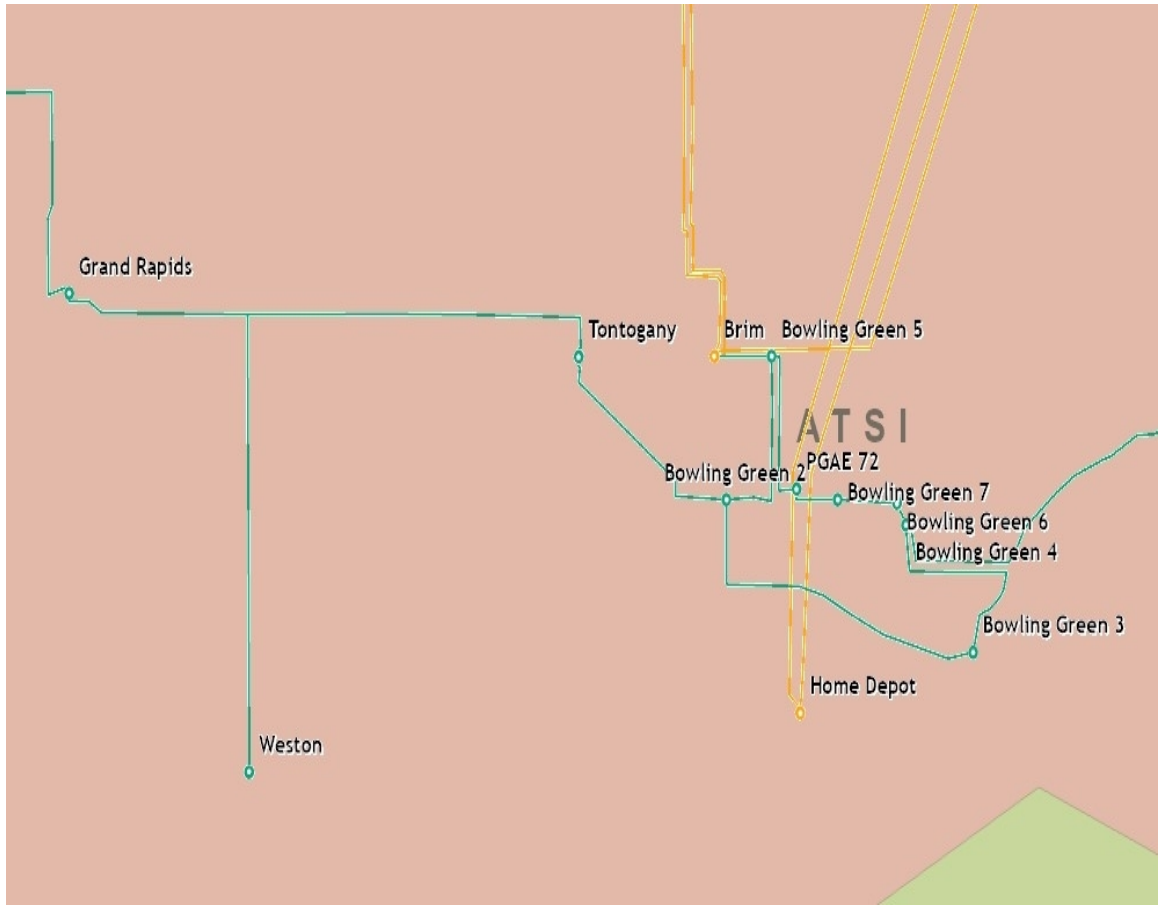
Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 08/14/2026

Previously Presented: Solution Meeting SRRTEP-W – 02/13/2026
Need Meeting – 06/13/2025

Project Driver:
Equipment Condition/Performance/Risk
Infrastructure Resilience
Operational Flexibility and Efficiency
Other

Specific Assumption References:
- AMPT's Transmission Facilities Interconnection Requirements document
- AMPT Transmission 2025 Local Planning Assumptions

Problem Statement:
The AMPT owned portion of the Poe Road - Tontogany 69 kV line is 250 MCM Copper overhead conductor, is approximately 60 years old and nearing its end of life. 30 of the 58 structures are 50-60 year old wood structures.



AMPT Transmission Zone M3 Process
Poe Road - Tontogany 69 kV line

Need Number: AMPT-2025-004

Process Stage: Submission of Supplemental Project for Inclusion in the Local Plan – 08/14/2026

Proposed Solution:
Poe Road - Tontogany 69 kV Line:
- AMPT to rebuild 2.75 miles of the AMPT owned portion of the Poe Road - Tontogany 69 kV line from the Poe Road substation to the AMPT/FE point of interconnection. **Estimated Cost: $6.06 M**

Poe Road - Tontogany 69 kV Line Relay Settings Update:
- FE to update relay settings at Sand Ridge substation. **Estimated Cost: $0.076 M**

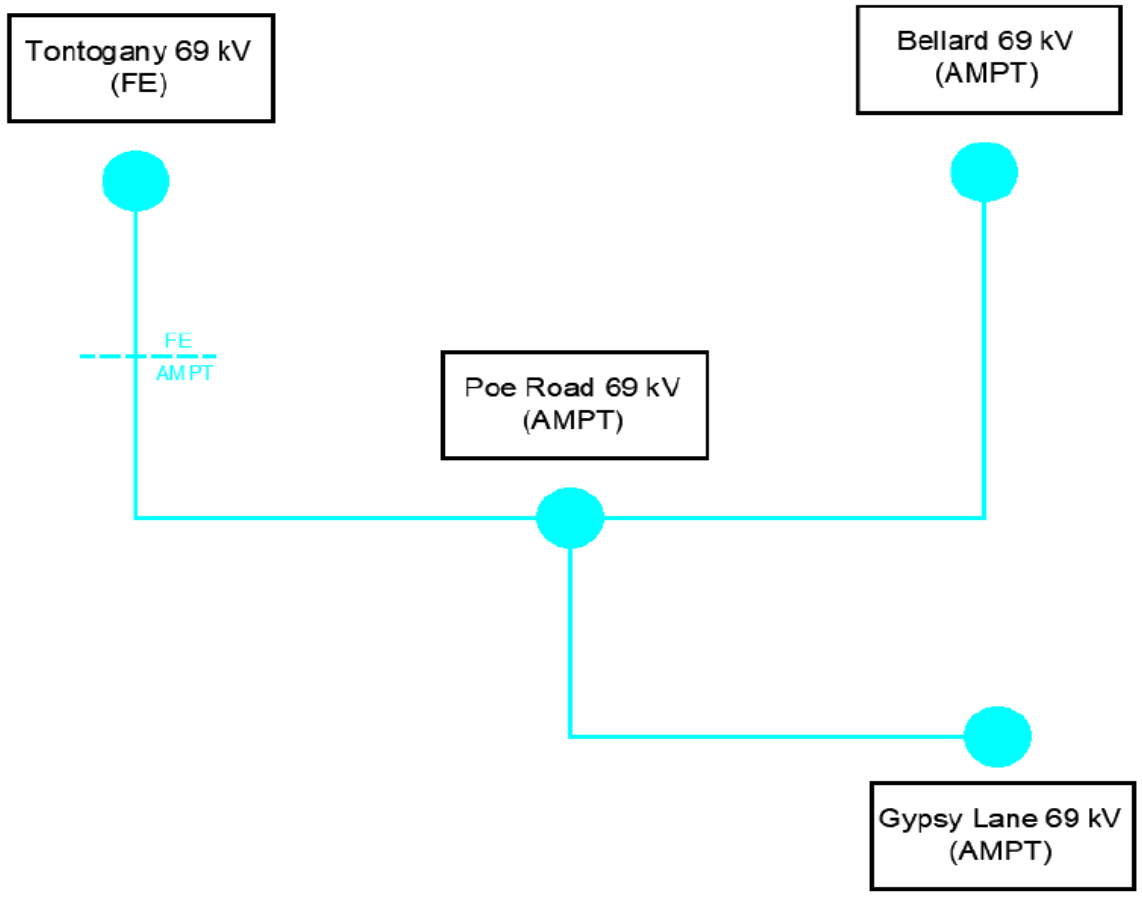
Transmission Cost Estimate: $6.136 M

Alternatives Considered:
Leave aging transmission line infrastructure as is with elevated risk of failure

Projected In-Service: 11/30/2028

Supplemental Project ID: s3889.1 (AMPT) & s3889.2 (ATSI)

Project Status: Pre-Engineering



AMP TRANSMISSION

Revision History

05/11/2026 – V1 – Original version posted to pjm.com (s3734.1-6, s3767.1, s3832.1, 3-5)

08/14/2026 – V2 – Adding s3888.1, s3888.2, s3889.1 & s3889.2

10/08/2026 – V3 – Updating AMPT-2023-004 Problem Statement, by removing contingency description