

Subregional RTEP Committee – Western  
AMPT Supplemental Projects

**Need Number:** AMPT-2022-002

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 3/22/2024

**Previously Presented:** Solution Meeting – 11/17/2023, Need Meeting – 2/18/2022

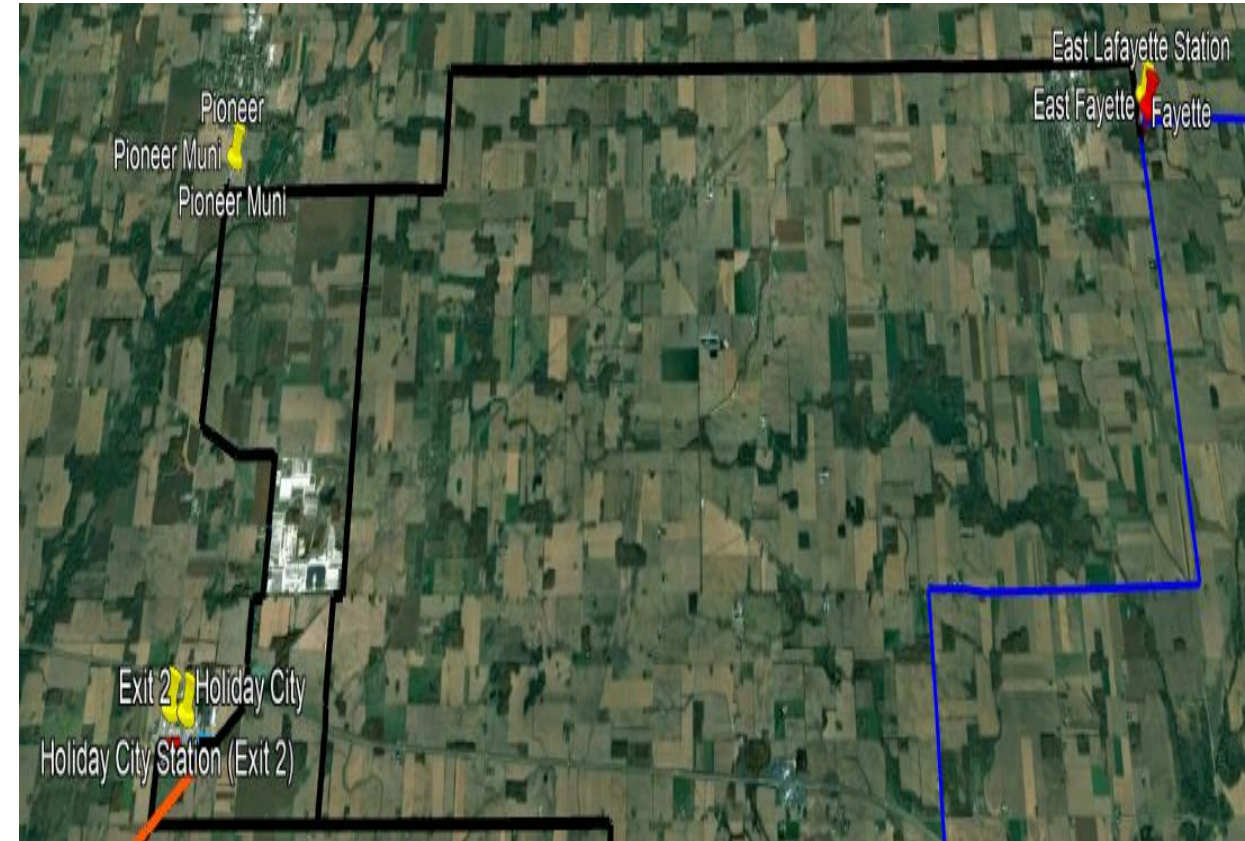
**Supplemental Project Driver(s):** Customer Service

**Specific Assumption Reference(s):** AMPT’s “Transmission Facilities Interconnection Requirements” document.

**Problem Statement:**

The existing interconnection is an approximately 2 mile radial 69 kV tap off ATSI’s East Fayette-Exit 2 69 kV line which supplies the Pioneer 69/12 kV substation.

The current peak load at Pioneer is 8 MW. A 2<sup>nd</sup> supply is needed per AMPT interconnection requirements criteria. The radial supply presents a single point of failure that jeopardizes reliability for the village.





# AMPT Projects in ATSI Transmission Zone M3 Process Pioneer, OH

**Need Number:** AMPT-2022-002

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 3/22/2024

**Previously Presented:** Solution Meeting – 11/17/2023,

**Supplemental Project Driver(s):** Customer Service

**Proposed Solution:**

**AMPT Identified Scope (\$13.9 M)**

- **(s3117.1)** At Kexon Substation - Install two (2) additional 69kV circuit breakers and associated substation disconnect switches. These additional breakers will be used to terminate the new Kexon – Snyder #1 and Kexon – East Fayette 69kV lines. **(\$2.1 M)**
- **(s3117.2)** Build approximately 2.5 miles of new double circuit 69kV line using 795 ACSR Drake conductor from Kexon station to a point on the existing AMPT owned Kidston Tap. Rebuild approximately 1 mile of the existing Kidston Tap to a double circuit 69kV line using 795 ACSR Drake conductor from a point on the existing Kidston Tap to a point on the FE owned East Fayette-Snyder 69 kV line. **(\$9.2 M)**
- **(s3117.3)** Extend the existing normally open circuit out of AMPT’s Kidston station to connect into FE’s Snyder 69kV station. This will require the construction of approximately 1 mile of greenfield single circuit 69kV line using 795 ACSR Drake conductor. **(\$2.6 M)**

**ATSI Identified Scope (\$12.6 M)**

**Snyder 69 kV substation**

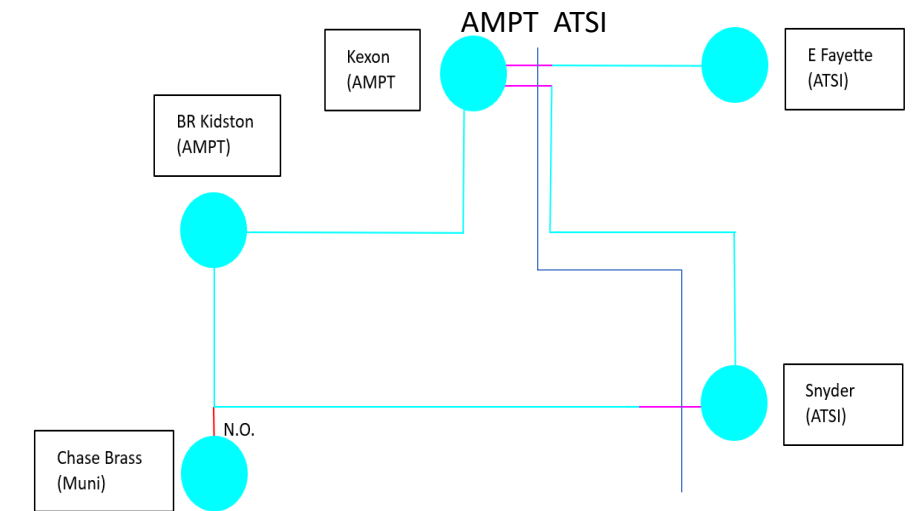
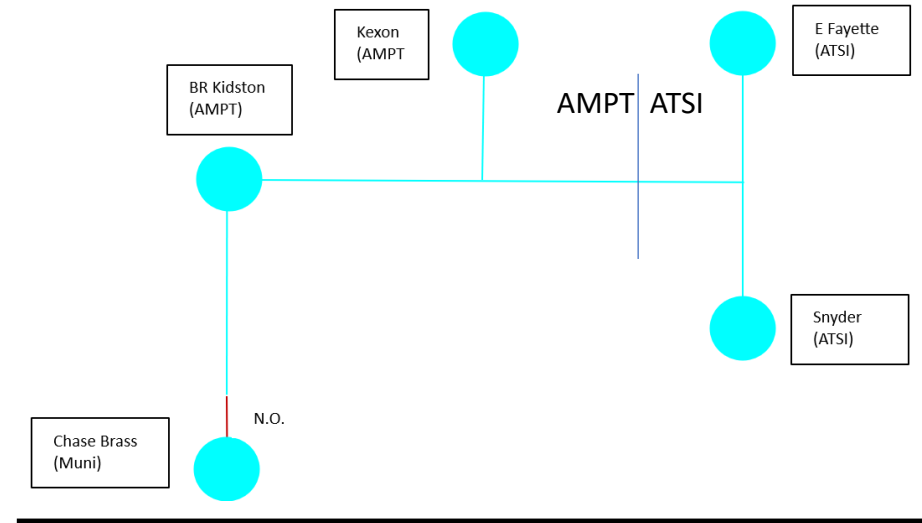
- **(s3117.4)** Expand the Snyder Substation from five to a six-breaker ring bus by adding one 69 kV circuit breaker to accommodate the Kexon-Bruce R. Kidston-Snyder 69 kV Line terminal (i.e., Kexon-Snyder #2) and install a dead-end structure just outside Snyder Substation to provide a termination point for the new line.
- Revise line relay settings to Kexon (formerly E Fayette exit)
- Install standard BES line relay panel with on the new line exit for the Kexon-Snyder #2 69 kV Line

**Stryker**

- **(s3117.5)** Install 2<sup>nd</sup> 138/69 kV transformer, adjust all 69 & 138 kV relays as required, integrate the new transformer protection to the system.
- Install one 138 kV bus tie breaker

**East Fayette-Snyder 69 kV Line**

- **(s3117.6)** Split the E Fayette-Snyder 69 kV Line between structure # 191 & 192 to loop in the AMPT Kexon Substation.
- Revise relay settings at E Fayette and Snyder substations
- Install a jumper between the new E. Fayette-Kexon & Snyder-Kexon #1 69 kV Line with inline normally open SCADA controlled switch





# AMPT Projects in ATSI Transmission Zone M3 Process Pioneer, OH

**Need Number:** AMPT-2022-002

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 3/22/2024

**Previously Presented:** Solution Meeting – 11/17/2023,

**Supplemental Project Driver(s):** Customer Service

**Ancillary Benefits:**

Solution provides reliability improvements for n-1-1 contingency on non-BES ATSI owned facilities (both voltage and thermal).

**Alternatives Considered:**

- Build a 138/69kV yard at Kexon and construct a 16 mile 138kV line from the existing East Fayette 138kV station to the new Kexon 138kV station. (**\$31 M**)

**Less cost effective than the proposed solution for the reasons noted above.**

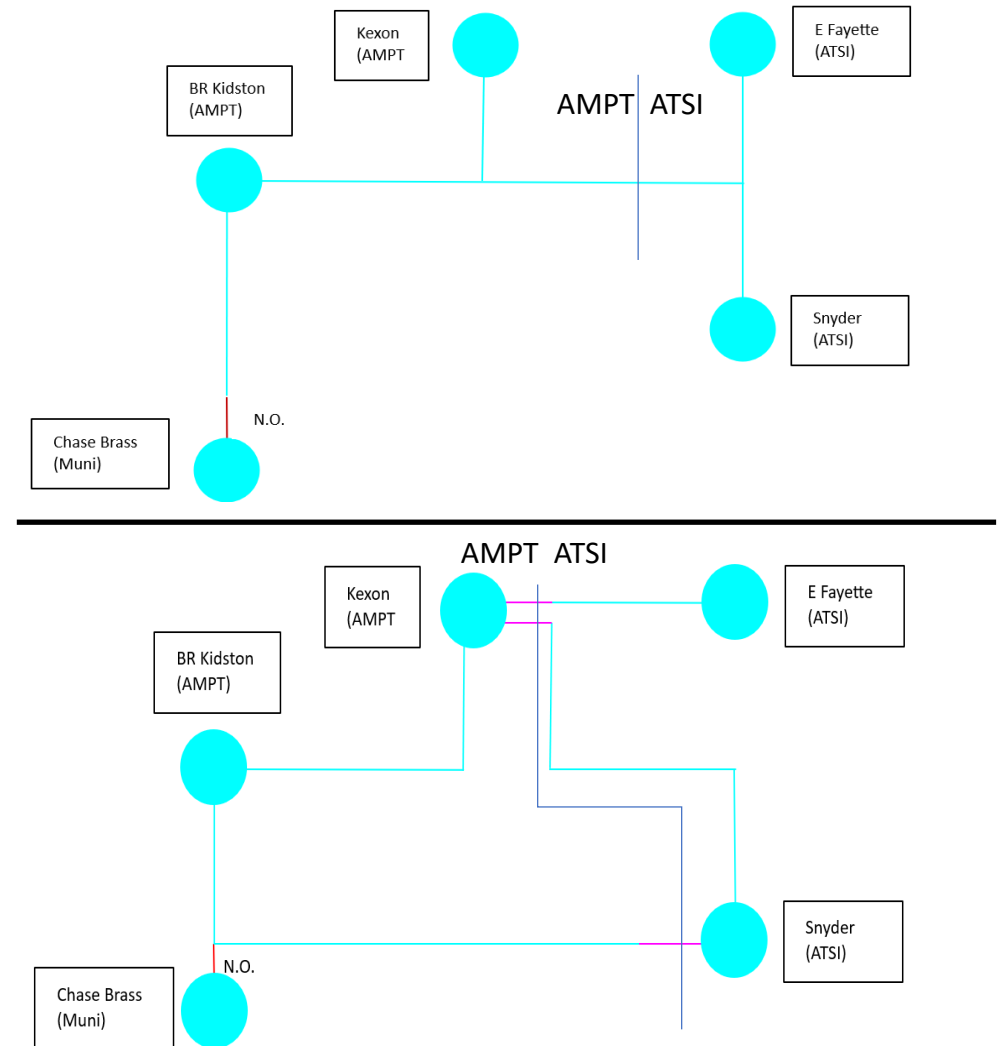
**Total Estimated Transmission Cost:** \$26.5 M

**Projected In-Service:** 5/31/2027

**Supplemental Project ID:** s3117.1 (AMPT); s3117.2 (AMPT), s3117.3 (AMPT), s3117.4 (ATSI); s3117.5 (ATSI), s3117.6 (ATSI),

**Project Status:**

- Conceptual (AMPT), Conceptual (ATSI)



**Need Number:** AMPT-2023-002

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 3/22/2024

**Previously Presented:** Solution Meeting – 1/19/2024, Need Meeting – 4/21/2023

**Supplemental Project Driver(s):** Customer Service

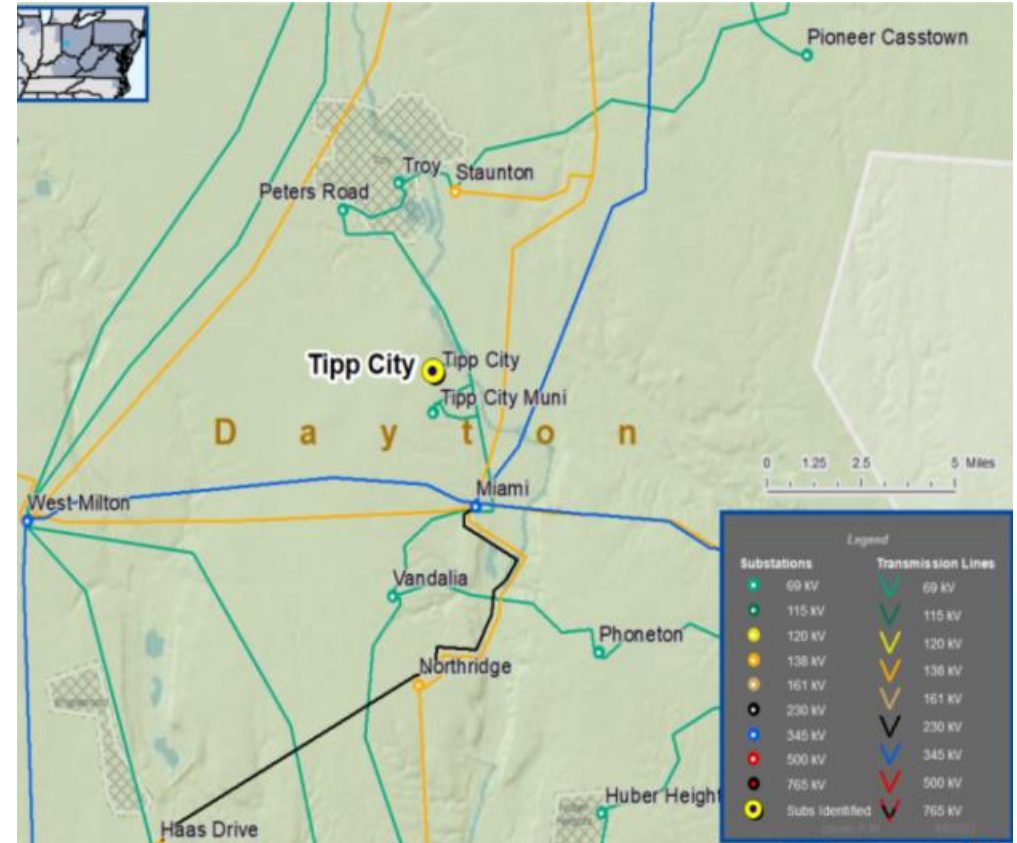
**Specific Assumption Reference(s):** AMPT’s “Transmission Facilities Interconnection Requirements” document.

**Problem Statement:**

New Customer Connection – The City of Tipp City has submitted a request for a new 69kV service point near the AMPT owned 69kV tap, which is served off AES’ 6692 69kV line.

The request was made to support new load increases in the area that totals approximately 10MW.

The City has requested an in-service date of 6/1/2025.







# AMPT Projects in DAY Transmission Zone M3 Process Tipp City, OH

**Need Number:** AMPT-2023-002

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 3/22/2024

**Previously Presented:** Solution Meeting – 1/19/2024

**Supplemental Project Driver(s):** Customer Service

**Proposed Solution:**

*AMPT Identified Scope (\$1.24M)*

## Tower 69kV Substation

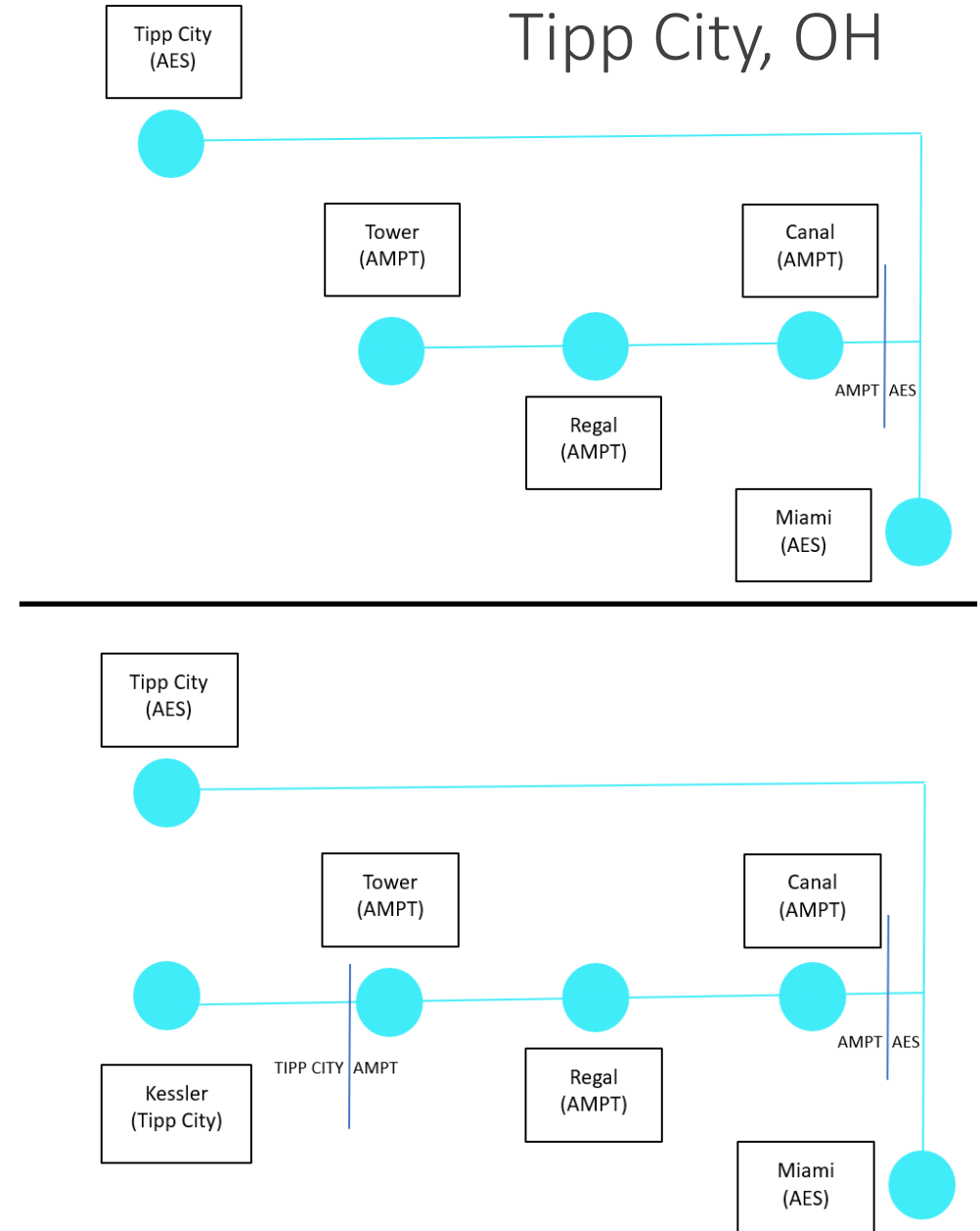
- Install new line relays, RTU, and CCVT's for the new 69kV line terminal.
- Perform necessary work to terminate new 69 kV line to Tower station.

**Projected In-Service:** 6/1/2025

**Supplemental Project ID:** s3217.1 (AMPT);

**Project Status:**

- Engineering (AMPT)



**Need Number:** AMPT-2023-001

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 3/22/2024

**Previously Presented:** Solution Meeting – 1/19/2024, Need Meeting – 3/17/2023

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

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

**Problem Statement:**

**Reliability:** Improve overall system protection coordination; including the elimination of a three-terminal 69 kV line.

**Operational Performance:** Improve operational switching capabilities and flexibility for system maintenance and restoration.

**New Customer Connection** – The City of Piqua has a need for a new 69/12 kV substation off AMPT’s 69 kV Tap.





# AMPT Projects in DAY Transmission Zone M3 Process Piqua, OH

**Need Number:** AMPT-2023-001

**Process Stage:** Submission of Supplemental Project for Inclusion in the Local Plan – 3/22/2024

**Previously Presented:** Solution Meeting – 1/19/2024

**Supplemental Project Driver(s):** Customer Service

**Proposed Solution:**

*AMPT Identified Scope (\$5.6 M) (s3216.1)*

**Hardin 69 kV Substation** Build a new 69/12 kV substation with two (2) 69 kV breakers with line terminals looking toward AES new station and Piqua Sub 5 and accommodate one (1) 69/12 kV transformer for the City of Piqua.

- The 69/12 kV transformer and associated 12 kV equipment costs are distribution costs not included as part of the transmission costs.

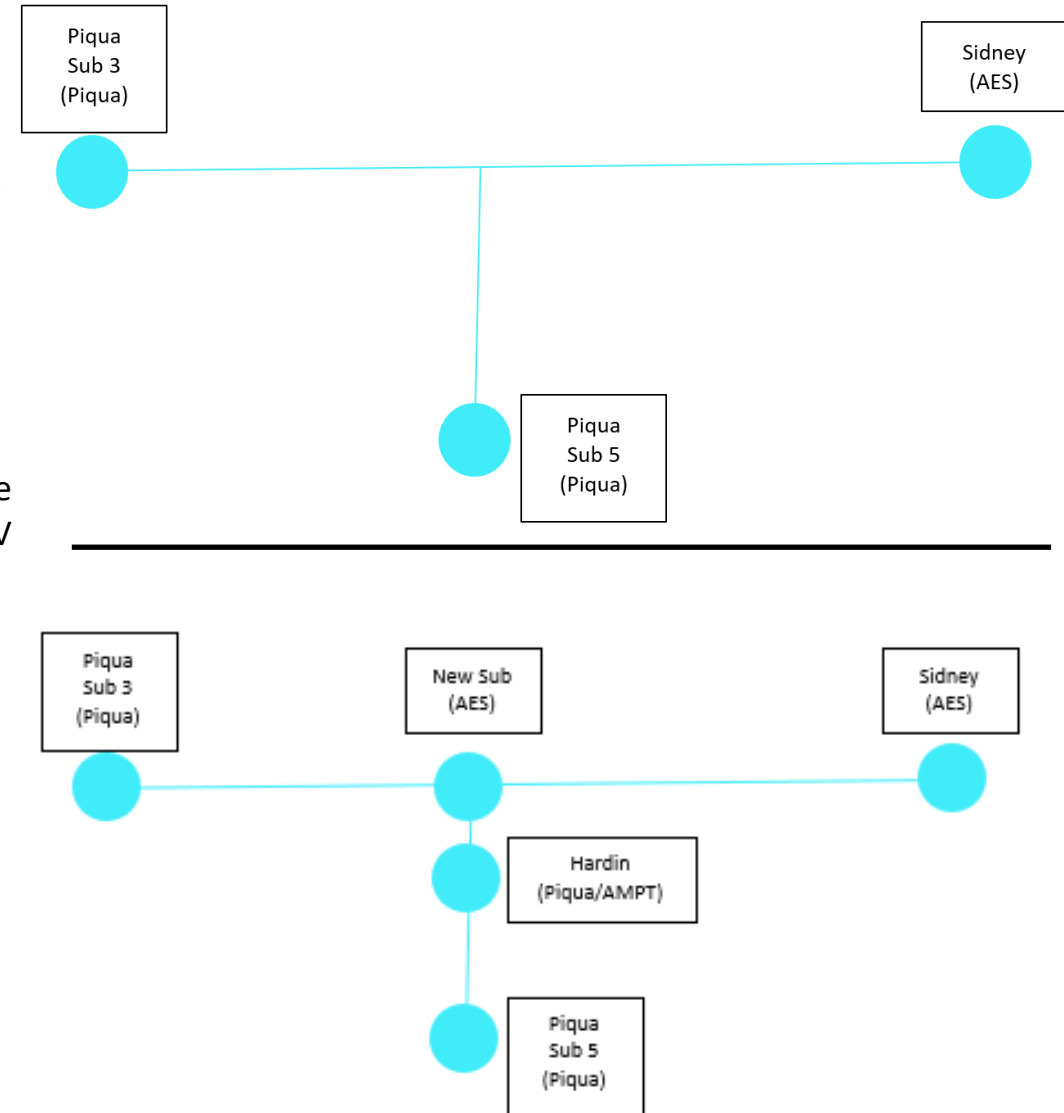
**Piqua Sub 5 69kV Substation**

- Upgrade line panel at Piqua Sub 5 looking toward the new Hardin sub.

*AES Identified Scope (\$9.2 M) (s3216.2)*

**New Piqua #6 69 kV Substation**

- Replace the existing line tap to the Piqua #5 substation with a new 69kV 3 breaker ring.







# AMPT Projects in DAY Transmission Zone M3 Process Piqua, OH

**Need Number:** AMPT-2023-001

**Process Stage:** Solution Meeting – 1/19/2024

**Supplemental Project Driver(s):** Customer Service

**Alternatives Considered:**

No alternatives considered for this project.

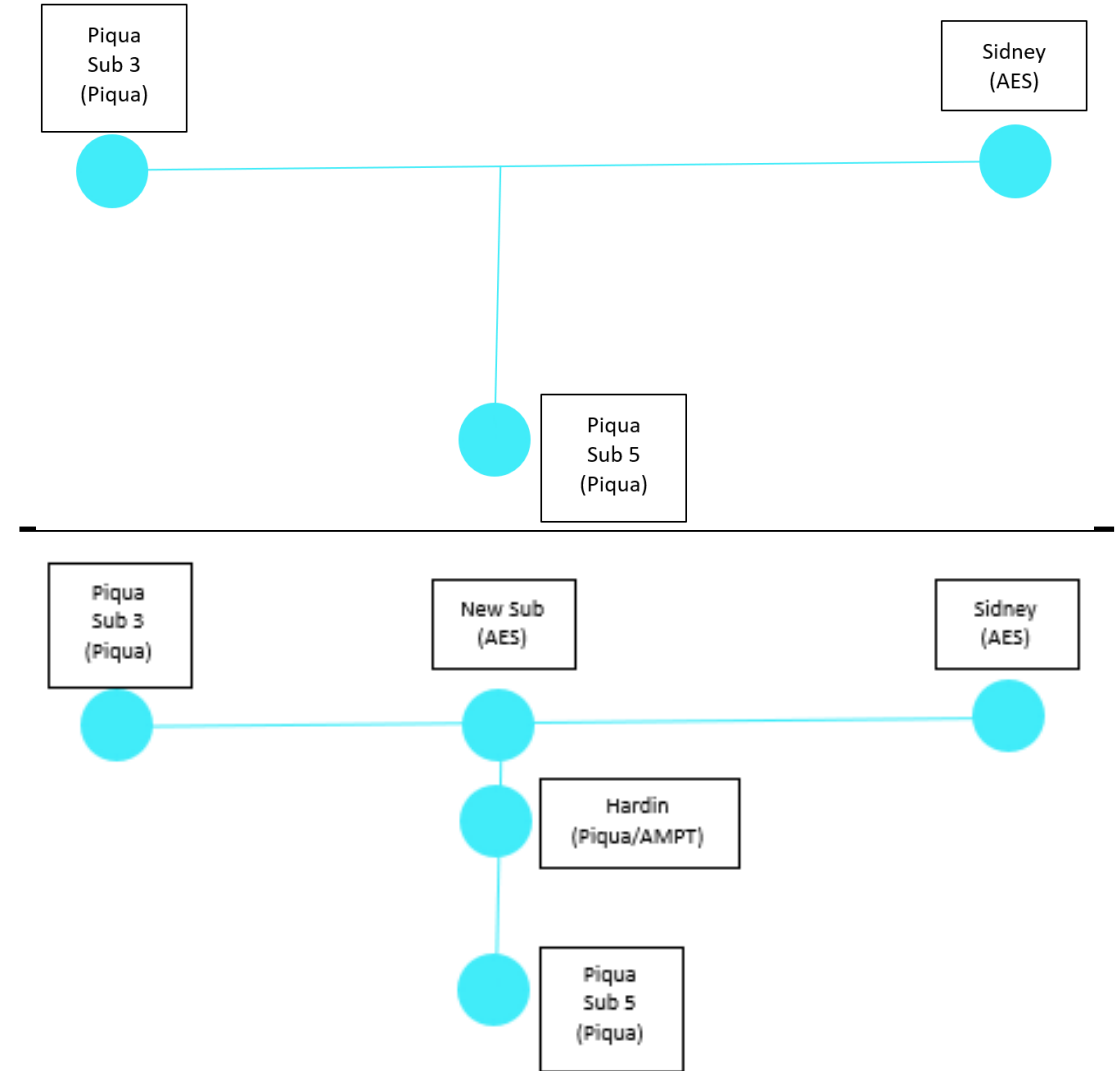
**Total Estimated Transmission Cost:** \$14.8 M

**Projected In-Service:** 12/1/2027

**Supplemental Project ID:** s3216.1 (AMPT); s3216.2 (AES);

**Project Status:**

- Conceptual (AMPT), Conceptual (AES)



## Revision History

2/22/2024 – V1 – Original version posted to pjm.com (s3117)

3/22/2024 – V2 – Adding sub ID's for s3117 (.1, .2, .3, .4, .5 and .6) and addition of s3216.1 & s3216.2