

Subregional RTEP Committee – AMPT Supplemental Projects

Solutions

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: AMPT-2023-003

Process Stage: Solution Meeting – 12/15/2023

Process Stage: Need Meeting – 4/21/2023

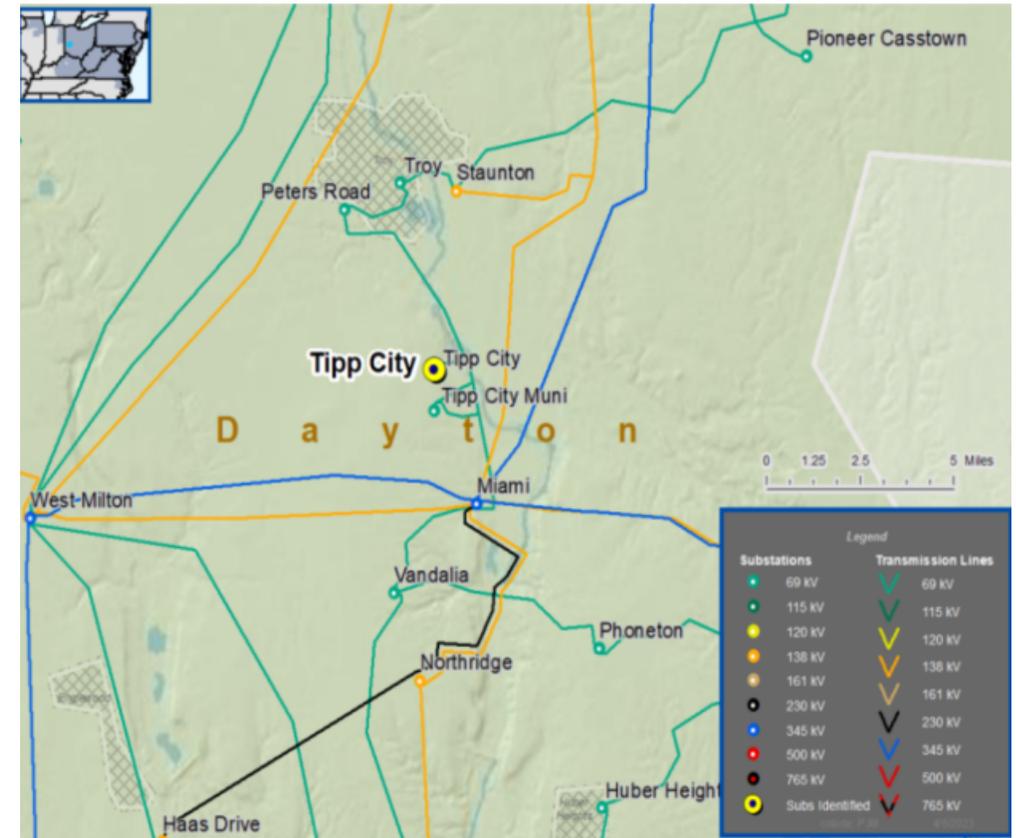
Supplemental Project Driver(s): Customer Service

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

Problem Statement:

The existing AMPT interconnection at Tipp City Muni is a radial 69kV tap off AES’ 6692 69kV line. Three AMPT stations (Canal, Tower, and Regal) are served off the AMPT owned 69kV tap. The radial supply presents a single point of failure that jeopardizes reliability for the city.

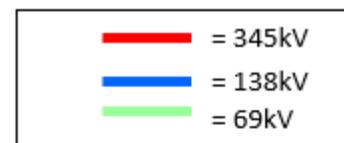
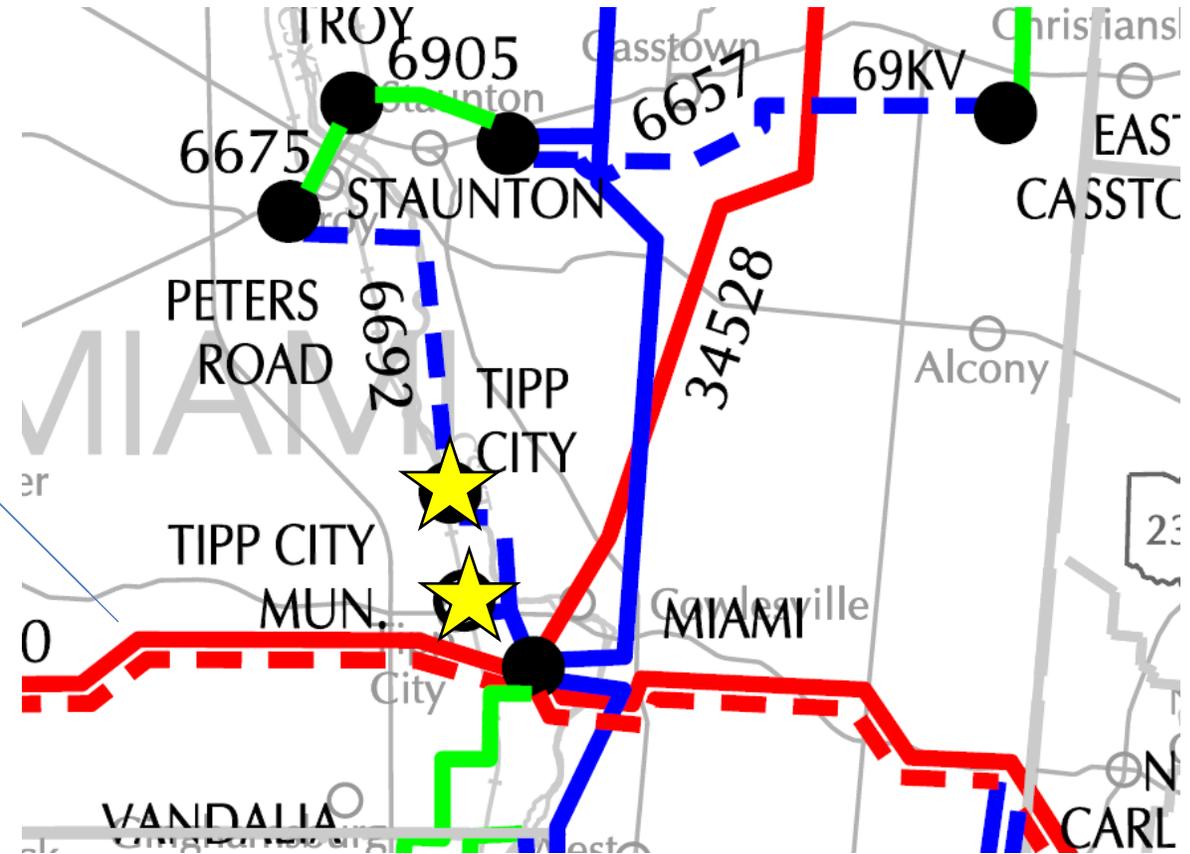
The current peak load at Tipp City Muni is 35MW. AMPT’s Transmission Facilities Interconnection Requirements specify looped facilities for loads exceeding 5MW or 35MW-mile thresholds.



- **Need Number:** Dayton-2023-004
- **Process Stage:** Need Meeting 04/21/2023
- **Project Driver:** Operational Flexibility and Efficiency
- **Specific Assumption Reference:** Dayton Local Plan Assumptions (Slide 5)

• **Problem Statement:**

- The existing 6692 Miami – Peters Road 69kV transmission line currently serves three tapped loads: Tipp City Municipal (35MW currently with potential to increase to 40MW in the future), Tipp City AES Ohio (6MW) and Peters Rd AES Ohio (14MW).
- A fault occurring anywhere on this line will result in both loads and a transformer at Peters Road tripping. Tipp City municipal has requested an upgrade to remedy this issue.
- 6692 is an 8.2 mile wood pole construction line built in 1970. The line has experienced 6 outages over the past 10 years.





AMPT Projects in DAY Transmission Zone M3 Process

Tipp City, OH

Need Number: AMPT-2023-003 & Dayton-2023-004

Process Stage: Solution Meeting – 2/16/2024

Supplemental Project Driver(s): Customer Service

Proposed Solution:

AMPT Identified Scope (\$ 15.3 M)

Construct New Kessler – AES Tipp City line (\$ 12.1 M)

- Build approximately 4.5 miles of new single circuit 69kV line using 795 ACSR Drake conductor from the future Tipp City Kessler station to AES’s Tipp City station.

Canal 69kV Substation (\$ 1.44 M)

- Install new line relays and CCVT’s for both 69kV line terminals

Tower 69kV Substation (\$ 1.24 M)

- Install new line relays and CCVT’s for line Tower – Canal line terminal.

Kessler 69kV Substation (\$.45 M)

- Install new RTU, security system, and update relay settings.

AES Identified Scope (\$ 24.3 M)

AES Ohio Tipp City 69kV Ring Bus:

- Upgrade AES Tipp City sub to 4 breaker ring bus and enable interconnection with the new Kessler-Tipp City (AMP-T) 69kV line.

Estimated Cost: \$7.8M, ISD 6/30/2027

Construct new Miami-Canal 69kV T-line:

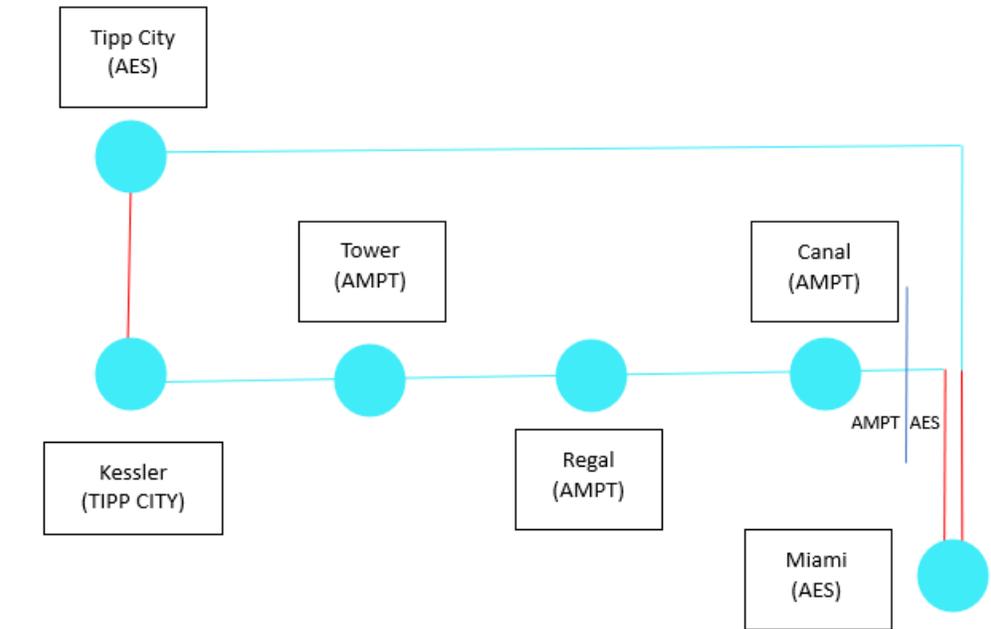
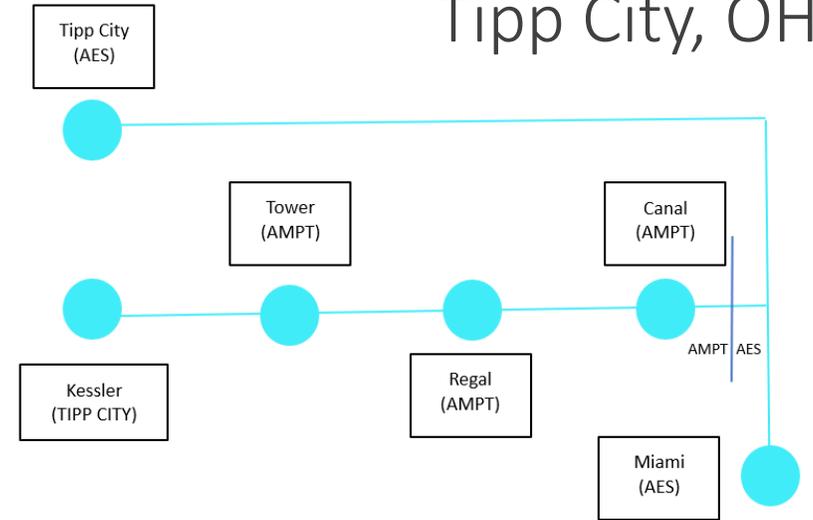
- Rebuild 2.0 miles of the existing 6692 line from AES Ohio Miami sub to AMP-T’s Canal tap, from single circuit line to double circuit Miami-Canal. Demo existing line tap.

Estimated Cost: \$5.5M, ISD 6/30/2028

Miami Substation Upgrades:

- Add one additional breaker, a 2nd 138/69kV transformer, replace five 69kV breakers & four 138kV breakers.

Estimated Cost: \$12M, ISD 6/30/2028





AMPT Projects in DAY Transmission Zone M3 Process

Need Number: AMPT-2023-003 & Dayton-2023-004

Process Stage: Solution Meeting – 2/16/2024

Supplemental Project Driver(s): Customer Service

Ancillary Benefits:

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

Alternatives Considered:

- Build a 69kV circuit from Kessler – AES Miami for approximately X miles. AES to expand the Miami station to accommodate a new 69 kV line terminal.
- This alternative was not chosen because it is a longer line length than the preferred option, this line route presented more siting challenges, higher costs, and the AES Miami station is space constrained to accommodate another 69 kV line. This option also did not address AES' needs to reinforce at their Tipp City substation.

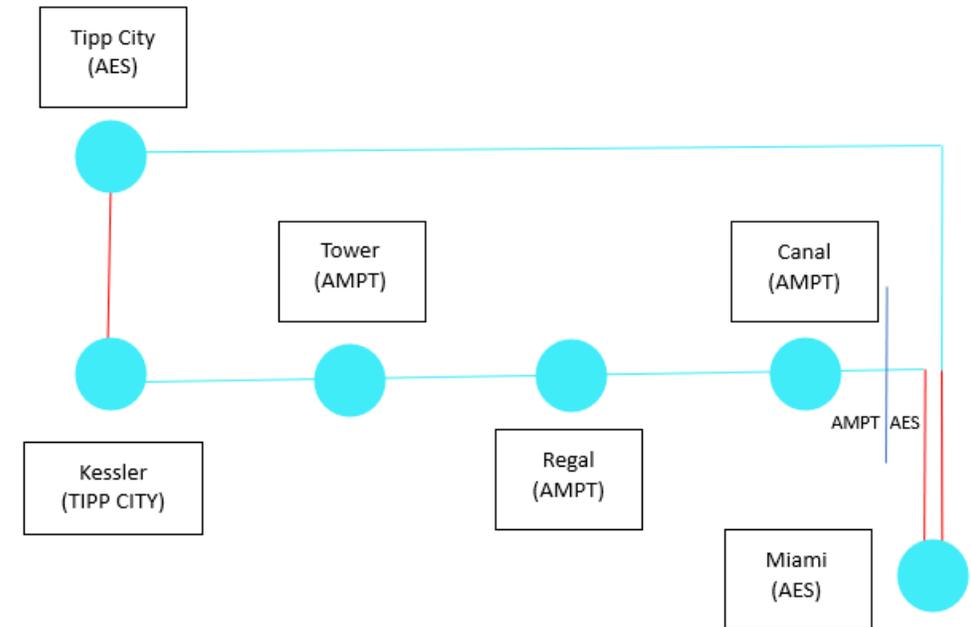
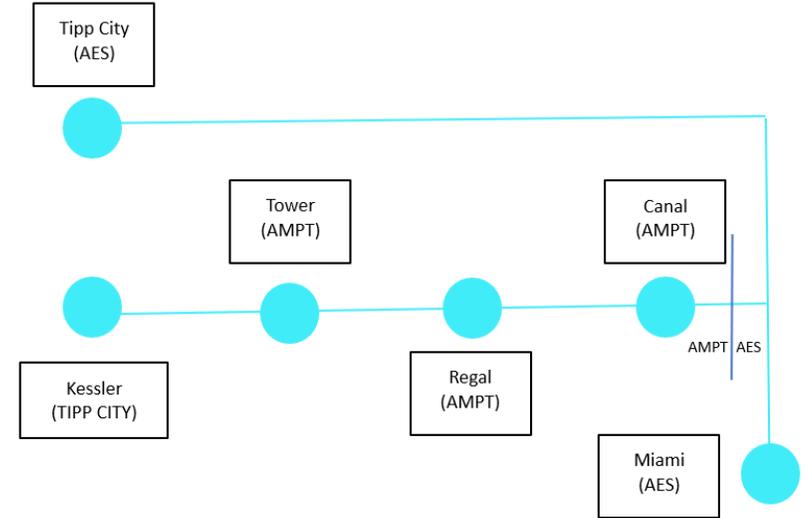
• **Total Estimated Transmission Cost: \$39.6M**

Projected In-Service: 6/30/2028

Model: 2023 RTEP – 2028 Summer Case

Project Status:

- Conceptual (AMPT), Conceptual (AES Ohio)



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

Revision History

2/6/2024 – V1 – Original version posted to pjm.com