

Subregional RTEP Committee - Western AMPT Supplemental Projects

November 17, 2023

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-2022-002

Process Stage: Solution Meeting – 11/17/2023

Process Stage: Need Meeting – 2/18/2022

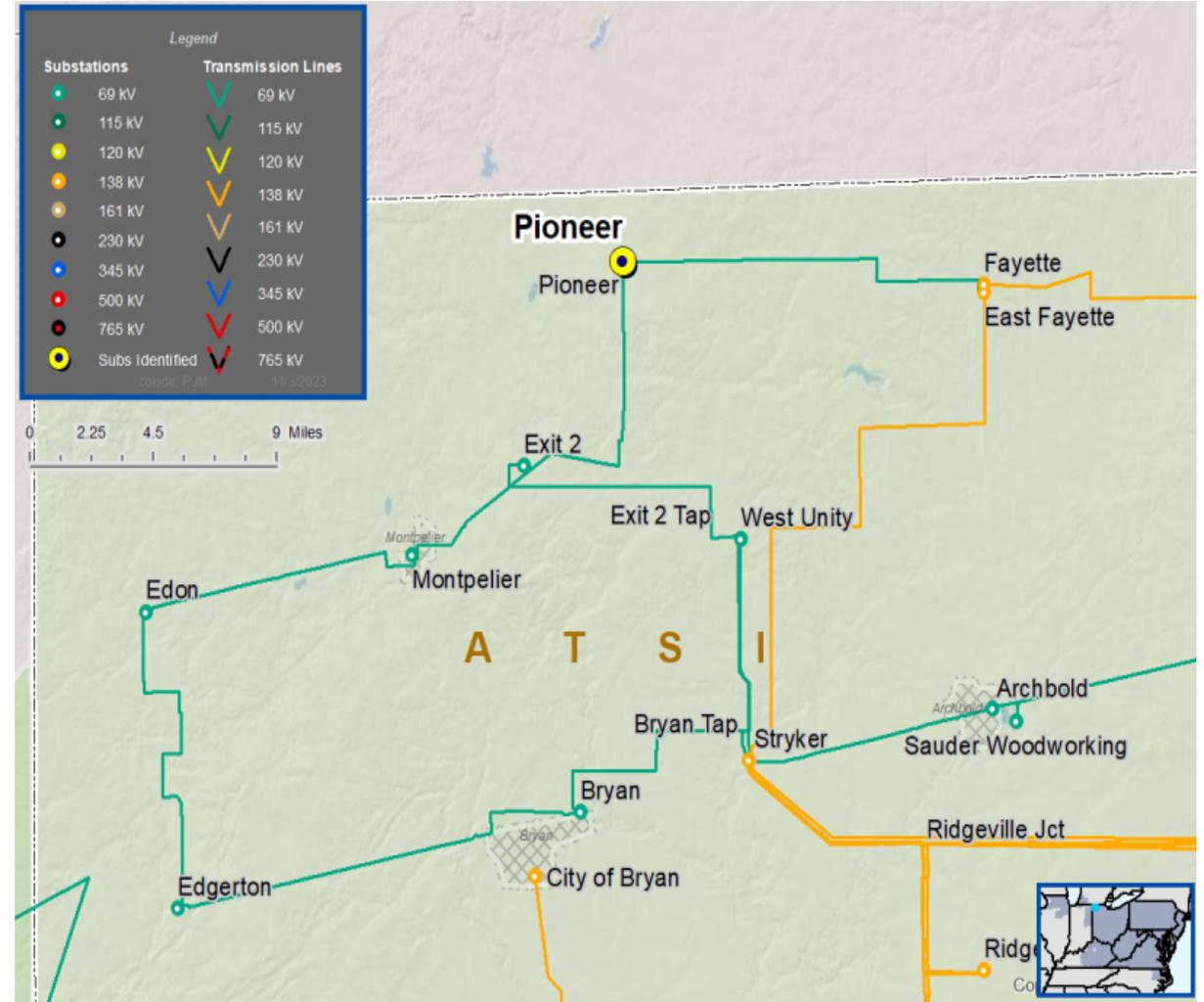
Supplemental Project Driver(s): Customer Service

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 2nd supply is needed per AMPT interconnection requirements criteria. The radial supply presents a single point of failure that jeopardizes reliability for the village.



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Proposed Solution:

AMPT Identified Scope (\$13.9 M)

- 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)**
- 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)**
- 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)**

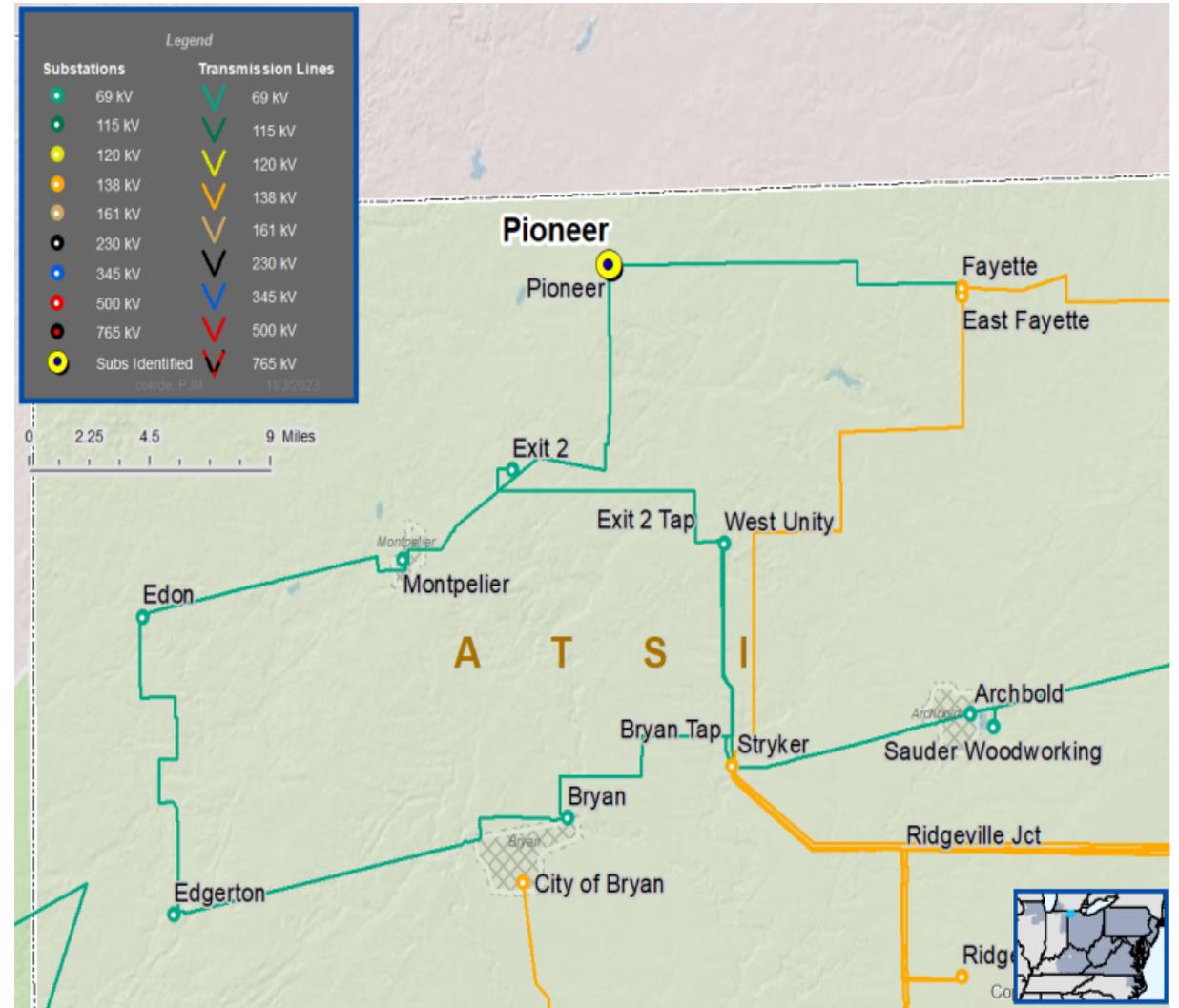
ATSI Identified Scope (\$12.6 M)

Snyder 69 kV substation

- 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

- Install 2nd 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

- 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

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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)**

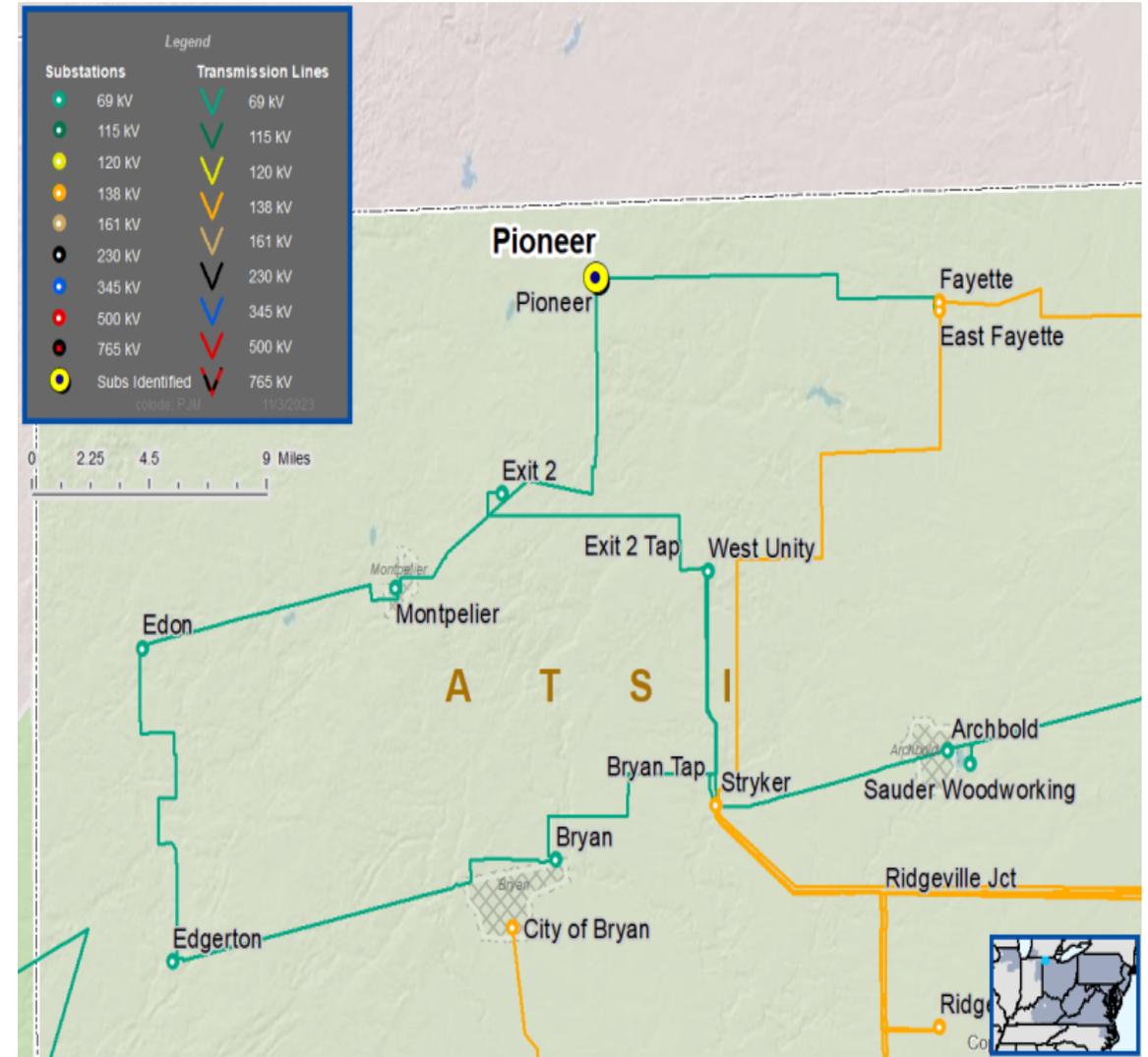
Less cost effective than the proposed solution for the reasons noted above.

Total Estimated Transmission Cost: \$26.5 M

Projected In-Service: 5/31/2027

Project Status:

- Conceptual (AMPT), Conceptual (ATSI)



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

11/7/2023 – V1 – Original version posted to pjm.com