AMP TRANSMISSION

Subregional RTEP Committee – AMPT Supplemental Projects

AMP TRANSMISSION

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

AMPT Transmission Zone M-3 Process
Edgerton 2nd source

Need Number: AMPT-2026-001

Process Stage: Solution Meeting SRRTEP-W - 11/13/2026

Previously Presented: Need Meeting SRRTEP-W - 01/16/2026

Project Driver:

- *Customer Service*
- *Infrastructure Resilience*

Specific Assumption References:

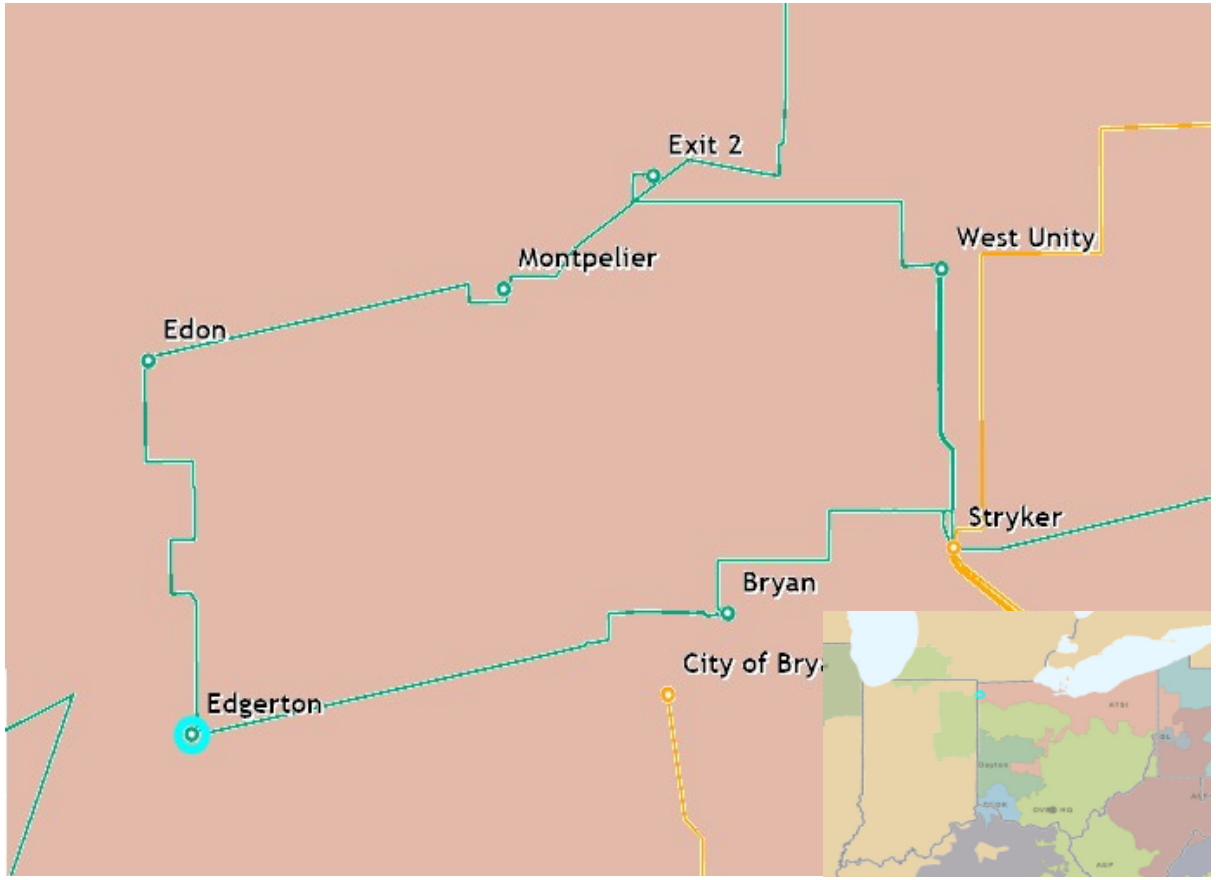
AMPT Transmission Facilities Interconnection Requirements document

AMPT 2025 Local Planning Assumptions

Problem Statement:

Edgerton substation is served from FE's Bryan-Edgerton 69 kV circuit. A fault anywhere on this circuit drops all of Edgerton, with no restoration until the line is sectionalized or until repairs are made.

- 6.5 MW load
- June 2022 - 69 kV outage event causing full outage for 48 hours, partial outage for 6 days, and then a total outage to switch back over from temporary source.



AMPT Transmission Zone M-3 Process
Edgerton 2nd source

Need Number: AMPT-2026-001

Process Stage: Solution Meeting SRRTEP-W - 11/13/2026

Proposed Solution:

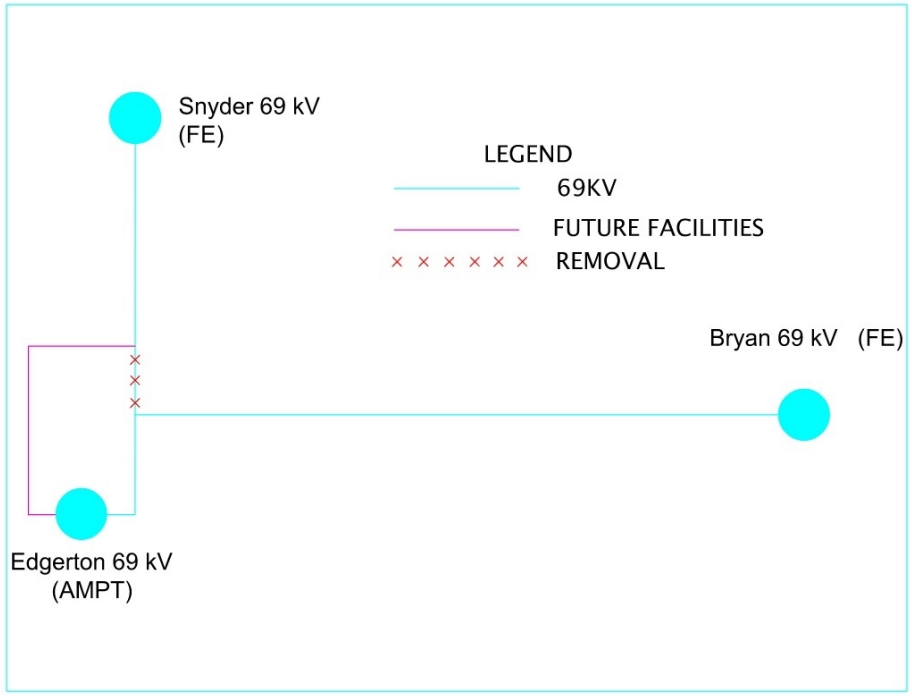
Edgerton sub reinforcements (Estimated Cost: $6.095 M)

- Install a 2nd 69 kV circuit breaker at Edgerton sub, and terminate the 2nd ATSI 69 kV source to this line terminal on a new dead end structure. Expand relay and control facilities as needed for the 2nd circuit, as well as communication with remote ends.
- On the existing line terminal at Edgerton, replace 600 A disconnects and bus conductor with 2000 A disconnects and bus conductor, to allow network flow without limiting the ampacity of the line through-path.

Bryan-Edgerton 69 kV line (Estimated Cost: $3.988 M)

ATSI Scope of Work:

- Build a short extension (-1000 FT) into the AMPT Edgerton Muni 69kV substation so it is a true in-and-out substation, rather than a tap.
- De-energize or retire roughly 100 feet of 69 kV line on the Edgerton-Bryan 69 kV circuit. This will eliminate a future three-terminal line while maintaining the electrical connection between the Bryan and Edgerton substations.
- Make appropriate relay updates at Bryan and Snyder substations.
- Relocate and install ATSI metering at Edgerton Muni 69kV substation on the low side of the 69/12 kV transformers.



Alternatives Considered:

The next alternative was constructing a new 69 kV circuit to FE's Bryan switchyard, 8 miles away. This option was discarded due to much higher cost than the preferred alternative.

Transmission Cost Estimate: $10.083 M

Projected In-Service: 03/31/2029

Project Status: Engineering

Model: 2030 RTEP summer

AMPT Transmission Zone M-3 Process
Genoa 2nd Source Reinforcement

Need Number: AMPT-2025-006
Process Stage: Solution Meeting SRRTEP-W - 11/13/2026
Previously Presented: Need Meeting SRRTEP-W - 08/15/2025

Project Driver:

- *Customer Service*
- *Operational Flexibility and Efficiency*

Specific Assumption References:

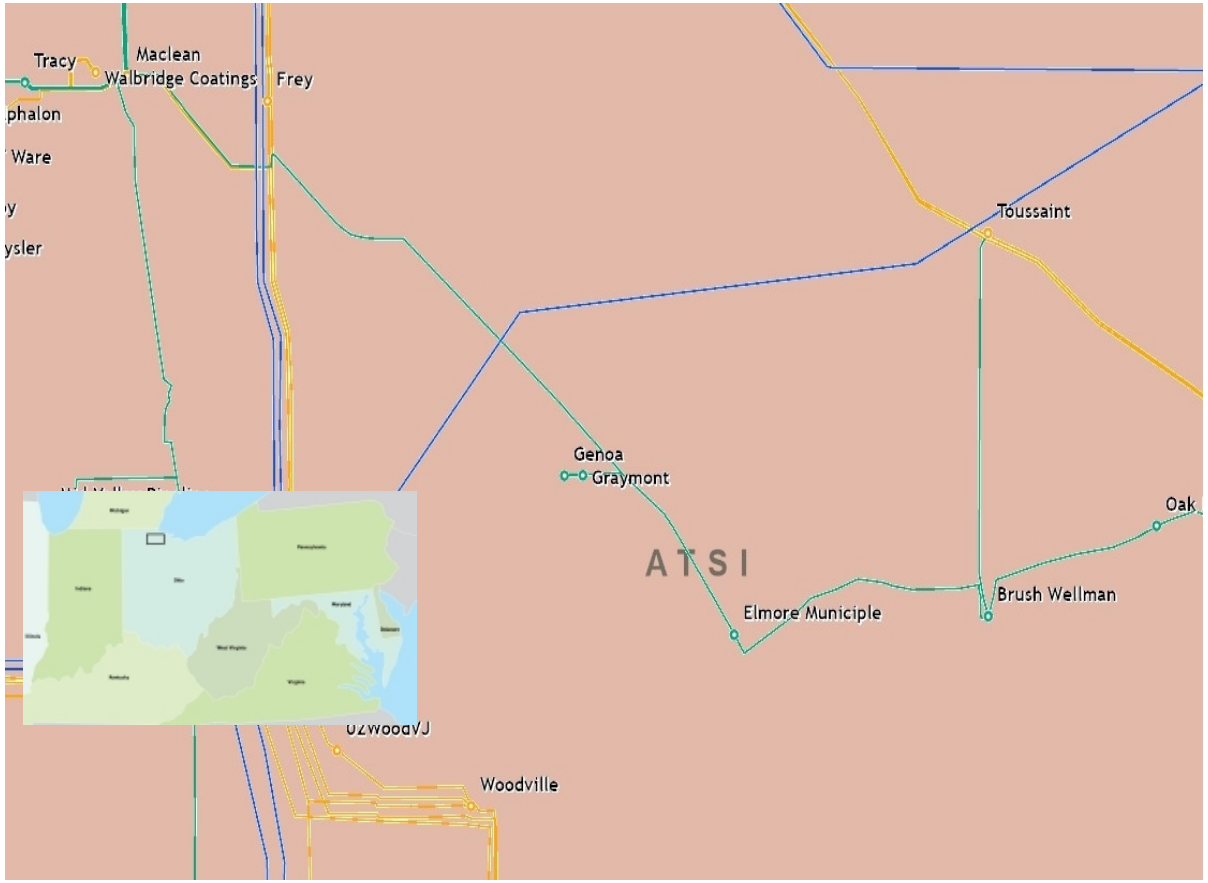
AMPT's Transmission Facilities Interconnection Requirements document

AMPT Transmission 2025 Local Planning Assumptions

Problem Statement:

Genoa's North and South substations are served by FE's Cast – Genoa 69 kV circuit. A fault anywhere on this circuit drops all of Genoa, with no restoration until the line is sectionalized or until repairs are made. The Genoa South substation is at the end of a radial 69 kV tap off the main Cast – Genoa (FE) 69 kV circuit that can experience lengthy outages due to no ability to sectionalize.

- July 2025 - forced outage of the Genoa South substation for 2 hours due to thunderstorm



AMPT Transmission Zone M-3 Process
Genoa 2nd Source Reinforcement

Need Number: AMPT-2025-006

Process Stage: Solution Meeting SRRTEP-W - 11/13/2026

Proposed Solution:

*Genoa North (*Estimated Cost: $5.2 M)

- Expand the existing Genoa North 69 kV substation for the addition of two 69 kV breakers to create a straight bus configuration with a high-side motorized switch for the distribution transformer.

*Genoa South (*Estimated Cost: $9.3 M)

- Expand the existing Genoa South 69 kV substation to a three breaker ring bus with a high-side motorized switch for the distribution transformer.

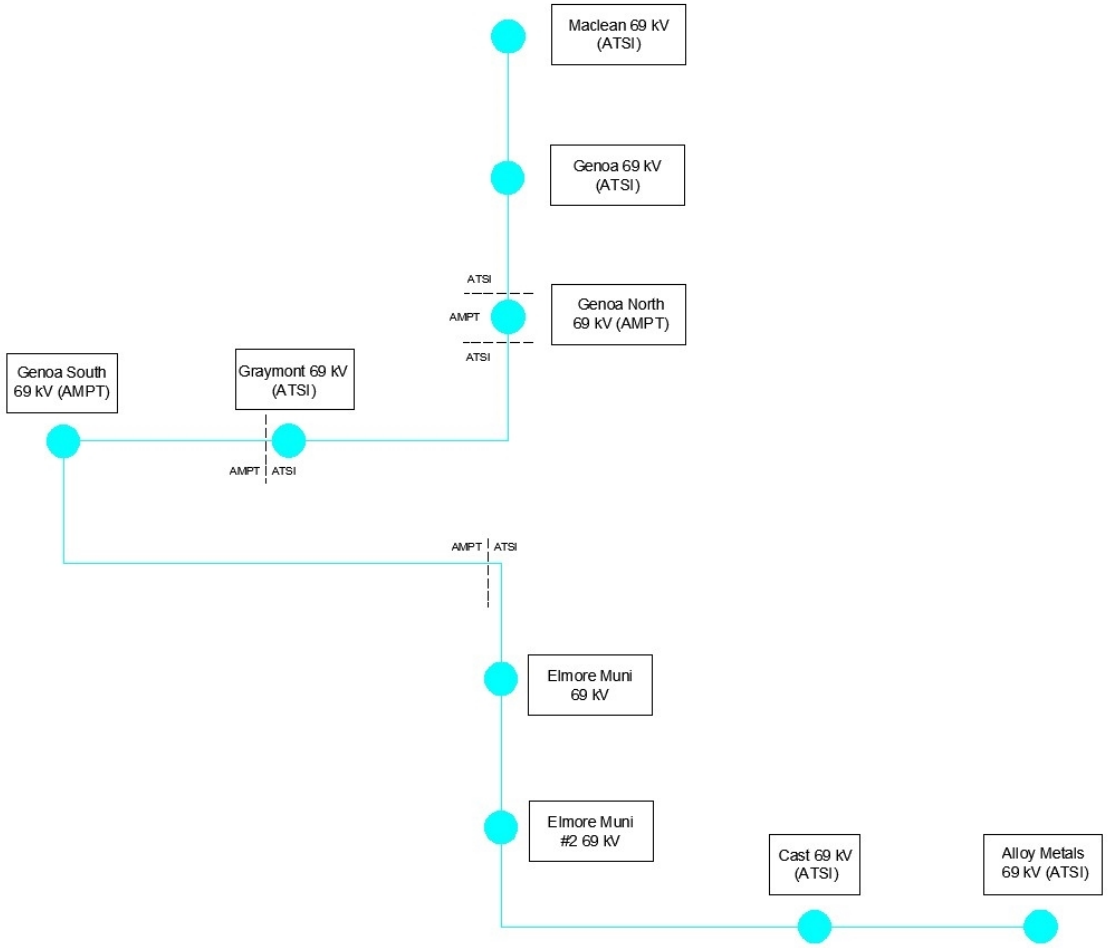
*Graymont - Genoa South 69 kV (*Estimated Cost: $1.05 M)

- Re-terminate the existing Graymont - Genoa South 69 kV line into the newly expanded Genoa South three breaker ring bus substation.

*Elmore Muni - Genoa South 69 kV (*Estimated Cost: $2.3 M)

- Construct 0.87-mile long Genoa South 69 kV tap, connecting the existing Genoa South substation to the existing ATSI-owned Cast-Genoa 69 kV line near the intersection of State Route 51 and State Route 163.

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AMPT Transmission Zone M-3 Process
Genoa 2nd Source Reinforcement

Need Number: AMPT-2025-006

Process Stage: Solution Meeting SRRTEP-W - 11/13/2026

Proposed Solution (CONT'):

*Genoa North - Graymont 69 kV (*Estimated Cost: $3.83 M)

- ATSI to create new 2nd permanent exit in/out of Genoa North 69 kV substation to create a true in and out to Genoa North from ATSI's Genoa 69 kV and Graymont 69 kV substations.

Alternatives Considered:

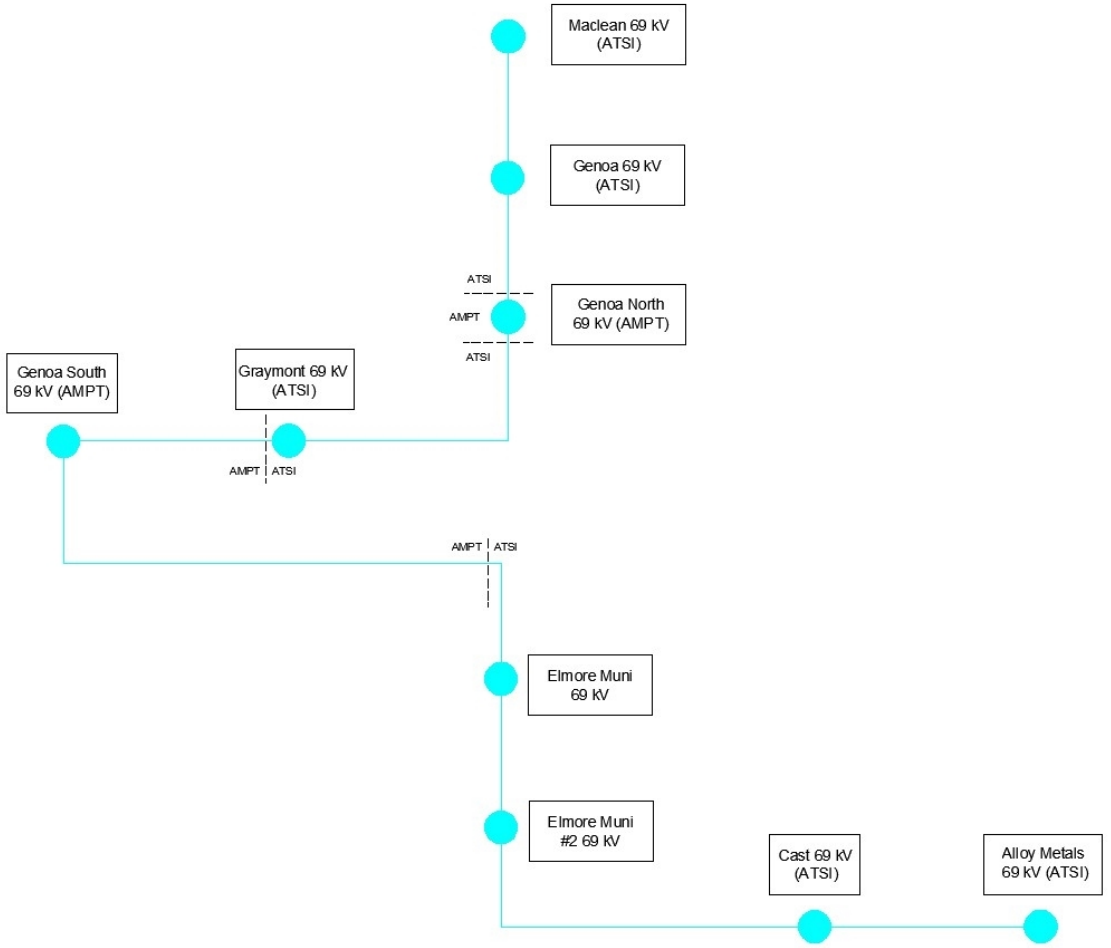
Bring in 138 kV source to the area from a source 5 miles to the west. Not chosen due to much higher costs.

Transmission Cost Estimate: $21.68 M

Projected In-Service: 02/08/2030

Project Status: Pre-Engineering

Model: 2025 Series RTEP 2030 Summer



AMPT Transmission Zone M-3 Process
Danville area reinforcement

Need Number: AMPT 2026-008

Process Stage: Solution Meeting SRRTEP-W - 11/13/2026

Previously Presented: Need Meeting SRRTEP-W - 06/17/2026

Project Driver:

- *Equipment Condition/Performance/Risk*
- *Infrastructure Resilience*
- *Operational Flexibility and Efficiency*

Specific Assumption References:

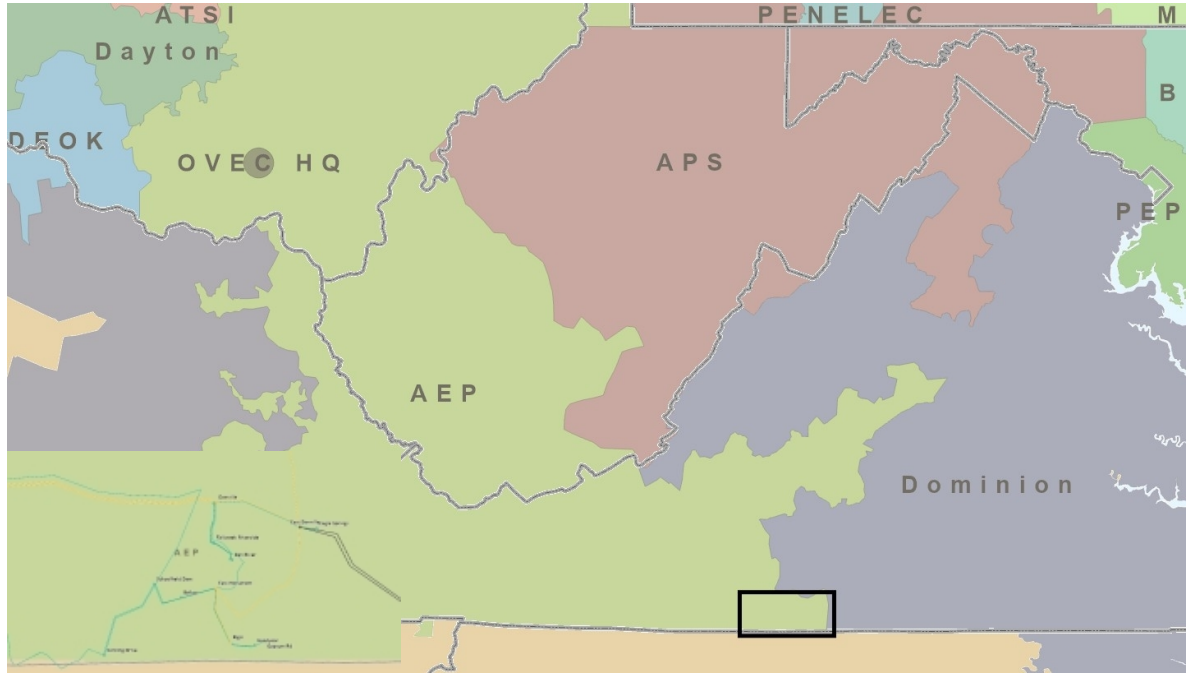
AMPT Transmission Facilities Interconnection Requirements

AMPT Transmission 2025 Local Planning Assumptions

Problem Statement:

The Riverside-Bridge St-Brantly 69 kV line (2.0 miles in length) consists primarily of lattice steel towers, installed in 1960. A majority of the line is built in the Dan River flood plain, with 3 towers actually in the riverbed. At 65+ years old, the line is near end of useful life. The riverbed towers are difficult to access for inspections and maintenance, and they present a significant risk of catastrophic failure during river flooding conditions.

AEP's Danville-E Danville (DANV-E DANV) 138 kV line is the only 138kV tie line between the eastern and western sides of Danville Utilities' 69kV system. When the AEP DANV-E DANV 138 kV line is out of service, whether due to planned work or a due to a line trip, several 69kV lines on the Danville Utilities system load up significantly. The Riverside-Bridge St-Brantly 69 kV line is one of the lines that approaches it's thermal ratings. To prevent thermal overload, Danville Utilities is forced to open their networked 69 kV lines, including the Riverside-Bridge St-Brantly line, thereby reducing system reliability to their customers. Danville has had to radialize their system 7 times in the last 3 years due to outages on the AEP line.



AMPT Transmission Zone M-3 Process
Danville area reinforcement

Need Number: AMPT 2026-008

Process Stage: Solution Meeting SRRTEP-W - 11/13/2026

Proposed Solution:

*Riverside sub- add 138 kV line terminal (*Estimated Cost: $3.9 M)

- Construct a 138 kV line terminal to terminate the new Brantly 138 kV line. Add two 138 kV breakers with associated disconnects. Expand the control house to accomodate the new R&C facilities.

*Brantly sub- rebuild and add 138 kV line terminal (*Estimated Cost: $12.5 M)

- Reconstruct the Brantly 138 kV yard at a new location, approx. 400' from the existing location (due to space limitations). Construct a 3-breaker ring bus, terminating both 138 kV lines and the 138/69 transformer. Provide R&C facilities to accommodate the change from radial to network operation in the 138 yard.

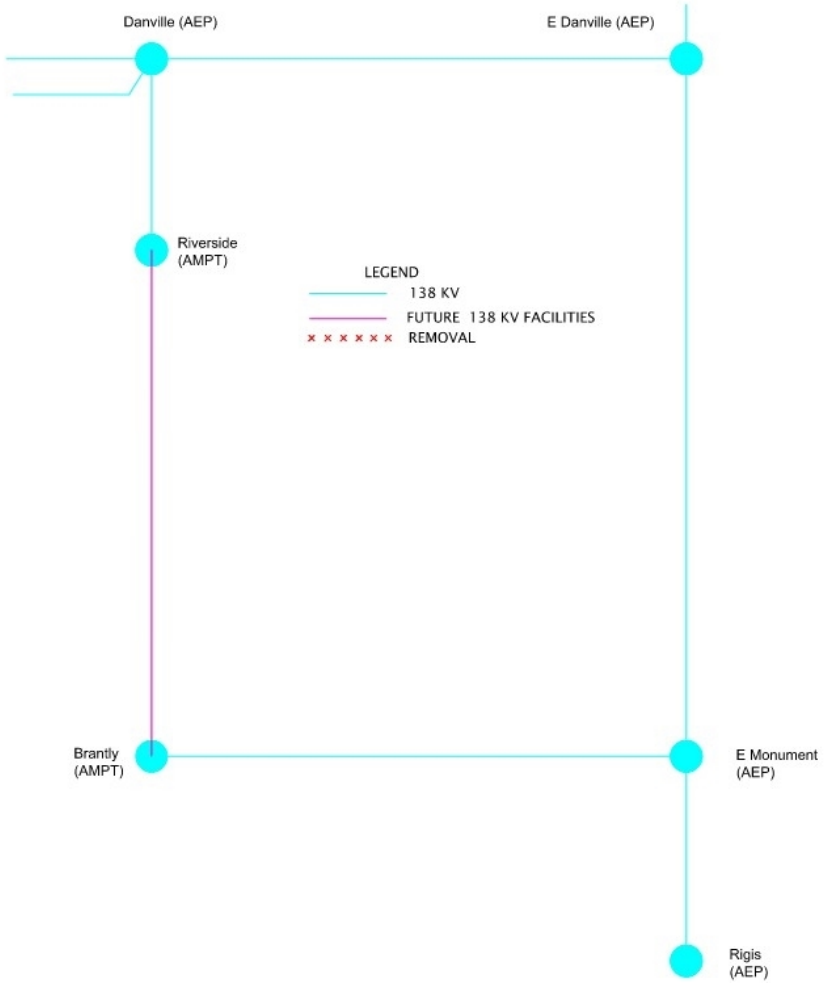
Riverside-Brantly 138 kV line (Estimated Cost: $10.5 M)

- Construct a new 2.0 mile double circuit 69/138 kV line from Riverside to Brantly. The 138 kV line will be the new Riverside-Brantly. The 69 kV side will replace the existing Riverside-Bridge St and Bridge St-Brantly 69 kV lines. Construct outside the Dan River flood plain to eliminate the flood damage risk.

*AEP Scope: relay upgrades and CB at E Monument (*Estimated Cost: $3.653 M)

- Upgrade relay equipment at Danville, E Danville, and E Monument. Install new 138 kV breaker at E Monument to bring the sub and protection up to modern standards, and prevent a line continency from taking additional equipment beyond just the faulted element.
- Install new revenue metering at Brantly and Riverside subs.

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AMPT Transmission Zone M-3 Process
Danville area reinforcement

Need Number: AMPT 2026-008

Process Stage: Solution Meeting SRRTEP-W - 11/13/2026

Proposed Solution (CONT'):

Riverside-Brantly 138 kV line

- Before Proposed Solution: N/A
- After Proposed Solution: 254/322/290/361

Alternatives Considered:

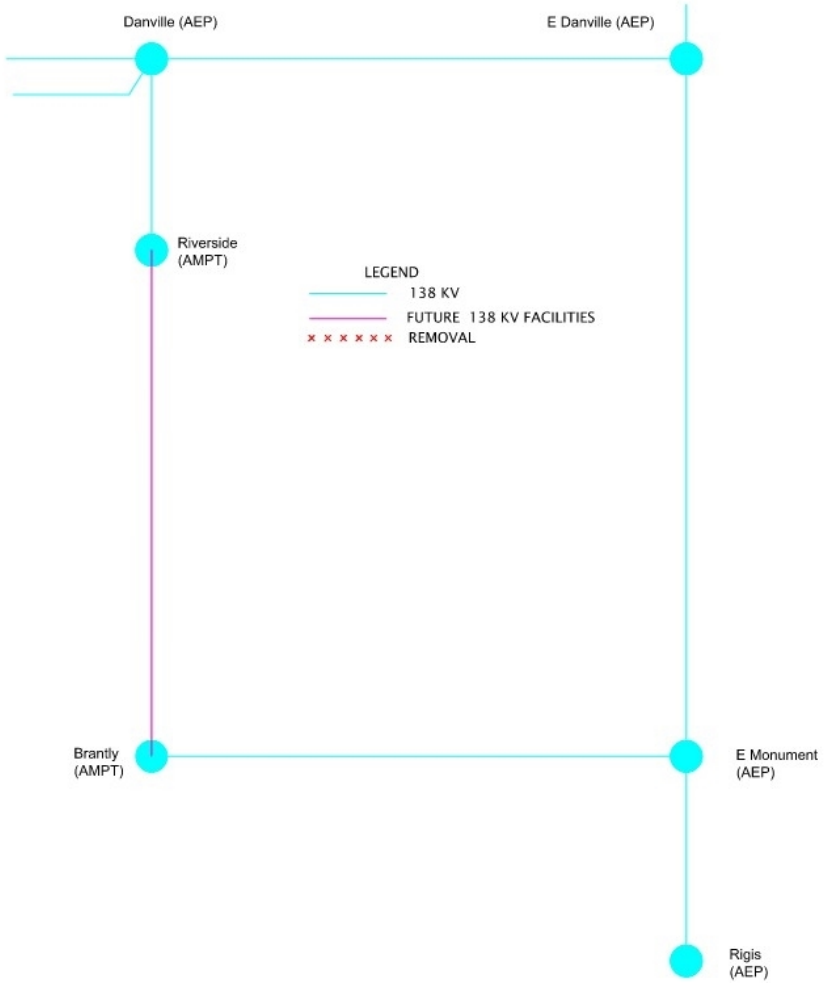
No feasible or reasonably priced alternatives exist which solves both problems. The 69 kV line will be rebuilt due to age and equipment risk with the same electrical connectivity.

Transmission Cost Estimate: $30.553 M

Projected In-Service: 01/31/2030

Project Status: Engineering

Model: 2030 RTEP summer



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/xx/2026 – V1 – Original version posted to pjm.com