Reliability Analysis Update

Sub Regional RTEP Committee - PJM West

November 19, 2021

Recommended Solution

Baseline Reliability Projects

AEP Transmission Zone: Baseline
Bellefonte 69kV Riser

Process Stage: Recommended Solution

Criteria: AEP 715 Criteria

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 RTEP cases

Proposal Window Exclusion: Below 200 kV Exclusion

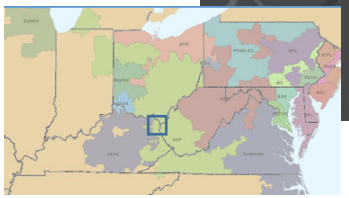
Problem Statement:

FG: AEP-T29, AEP-T30, AEP-T31, AEP-T32

In 2026 Summer RTEP case, the 69kV risers between 69kV Bus #2 and 69kV winding of TR#3 are overloaded for multiple N-1-1 contingencies.

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
05 BELLF2 - 05BELLEFNT 138/69 kV	143/168/182/200



AEP Transmission Zone: Baseline
Bellefonte 69kV Riser

Recommended Solution:

Replace Bellefonte 69kV risers on the section between Bellefonte TR#3 and 69kV Bus #2. (**B3349**)

Total Estimated Cost: $0.54 M

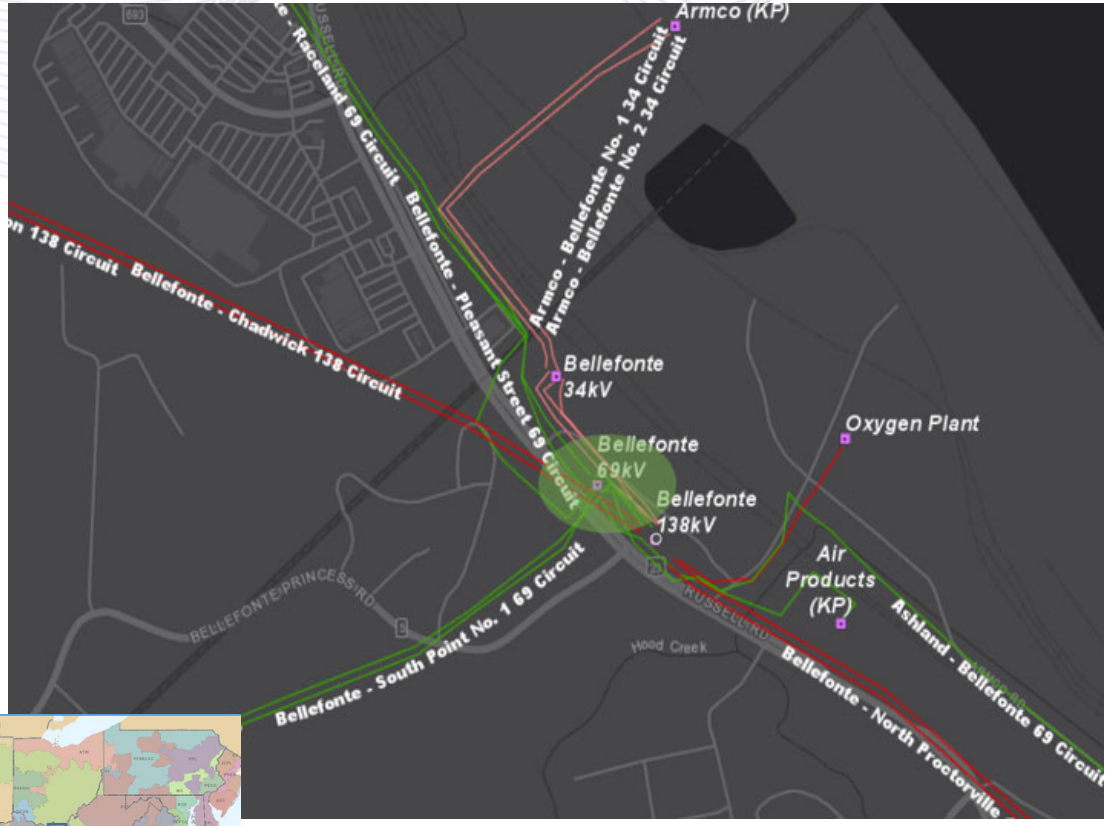
Preliminary Facility Rating:

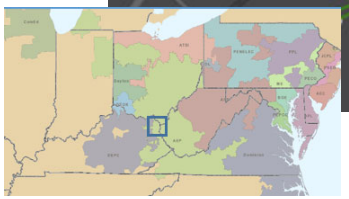
Branch	SN/SE/WN/WE (MVA)
05 BELLF2 - 05BELLEFNT 138/69 kV	179/210/227/250

Required IS date: 6/1/2026

Projected IS date: 4/30/2026

Previously Presented: 10/15/2021





AEP Transmission Zone: Baseline
Monterey 69 kV Switch Replacements

Process Stage: Recommended Solution

Criteria: AEP 715 Criteria

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 RTEP Summer case

Proposal Window Exclusion: Below 200 kV Exclusion and Substation equipment exclusion

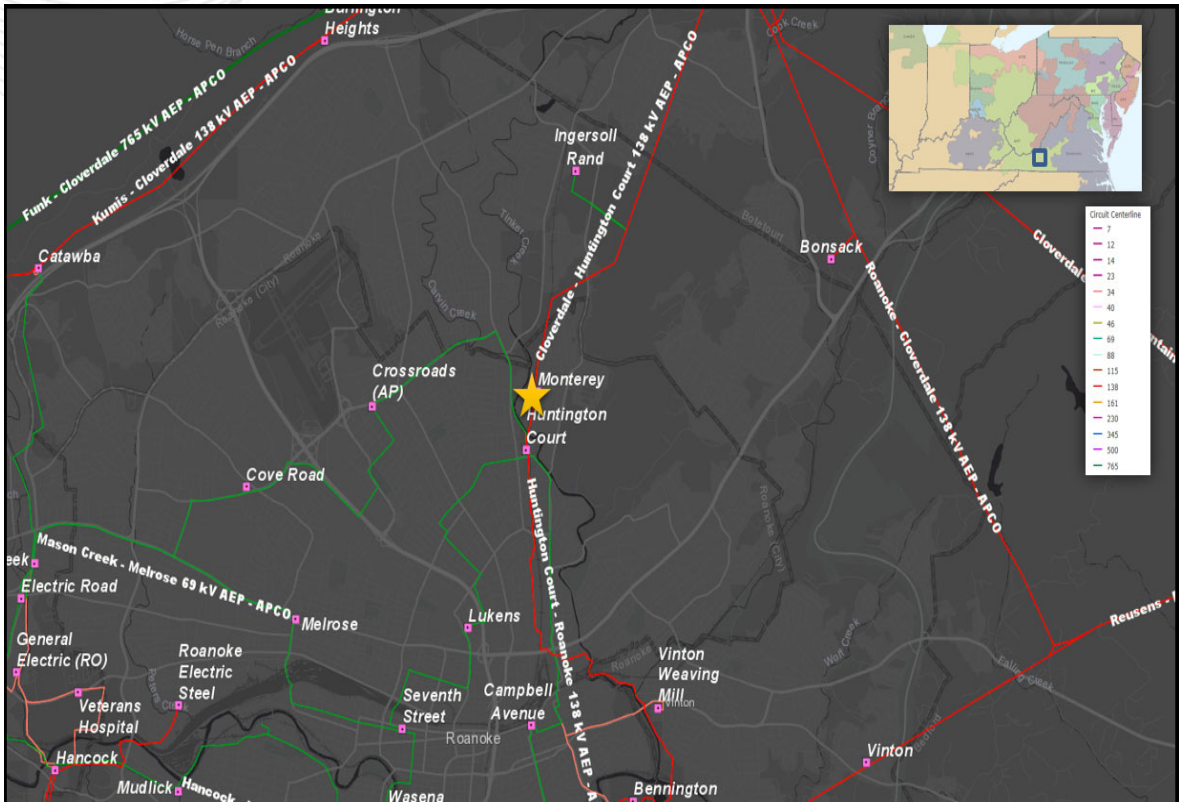
Problem Statement:

FG: AEP-T35, AEP-T36

In 2026 RTEP Summer case, the Monterey-Huntington Court 69 kV line section caused by an N-1-1 contingency.

Existing Facility Rating:

Branch	Ratings (SN/SE/WN/WE)
05MONTERAV - 05HUNTCRT2 69kV	82/90/107/113



AEP Transmission Zone: Baseline Monterey 69 kV Switch Replacements

Recommended Solution:

Replace the 69 kV, in-line switches at Monterey 69kV Substation. (**B3351**)

Transmission Estimated Cost: $0M

Distribution Estimated Cost: $0.22M

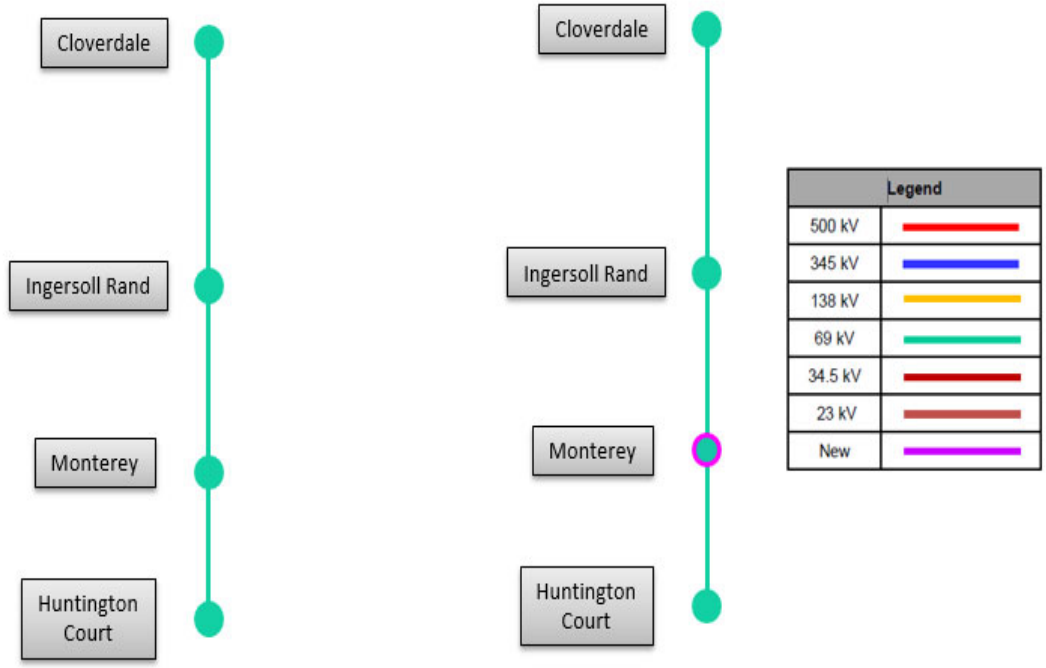
Preliminary Facility Rating:

Branch	Ratings (SN/SE/WN/WE)
05MONTERAV - 05HUNTCRT2 69kV	125/125/158/158

Required IS date: 6/1/2026

Projected IS date: 6/1/2026

Previously Presented: 10/15/2021



AEP Transmission Zone: Baseline 47th Street Upgrades

Process Stage: Recommended Solution

Criteria: AEP 715 Criteria

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 RTEP cases

Proposal Window Exclusion: Below 200 kV Exclusion

Problem Statement:

FG: AEP-T37, AEP-T38

In 2026 RTEP Summer case, the Kenova - 47th street line section is overloaded for an N-1-1 contingency.

Existing Facility Rating:

Branch	Ratings (SN/SE/WN/WE)
0547TH ST - 05KENOVA H 69kV	79/90/100/109

AEP Transmission Zone: Baseline 47th Street Upgrades

Recommended Solution:

Replace MOAB W, MOAB Y, line and bus side jumpers of both W and Y at 47th Street 69kV station. Upgrade the 69kV Strain bus between MOABs W and Y to 795 KCM AAC. Change the connectors on the tap to MOAB X1 to accommodate the larger 795 KCM AAC. (**B3352**)

Transmission Estimated Cost: $0M

Distribution Estimated Cost: $0.22M

Preliminary Facility Rating:

Branch	Ratings (SN/SE/WN/WE)
0547TH ST - 05KENOVA H 69kV	102/102/129/129

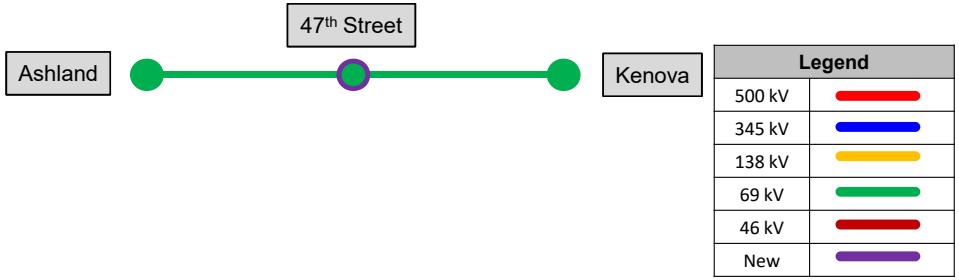
Required IS date: 6/1/2026

Projected IS date: 6/1/2026

Previously Presented: 10/15/2021

System Electrical Diagram (Existing):

System Electrical Diagram (Proposed):



AEP Transmission Zone: Baseline
Allen Station Rebuild baseline conversion

Process Stage: Recommended Solution

Criteria: AEP 715 Criteria

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 RTEP cases

Proposal Window Exclusion: Below 200 kV Exclusion

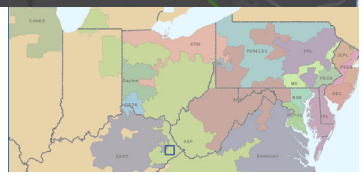
Problem Statement:

FG: AEP-T66, AEP-T67, AEP-T68, AEP-T69

In 2026 RTEP winter case, the Stanville - Allen line section is overloaded for multiple N-1-1 contingency pairs.

Existing Facility Rating:

Branch	Ratings (SN/SE/WN/WE)
05ALLEN- 05STANVILLE 46kV	47/47/47/47
05ALLEN- 05EPRESTNS 46kV	45/58/60/69



AEP Transmission Zone: Baseline
Allen Station Rebuild baseline conversion

Recommended Solution: Conversion of S2405.1-.6

Allen Substation: Rebuild Allen Station to the northwest of its current footprint utilizing a standard air-insulated substation with equipment raised by 7' concrete platforms and control house raised by a 10' platform to mitigate flooding concerns. Install five 69 kV 3000A 40 kA circuit breakers in a ring bus (operated at 46kV) configuration with a 13.2 MVAR capacitor bank. Existing Allen station will be retired (original S2405.1) (**B3353.1**) Estimated Cost: $10.55 M (Does not include the distribution cost) Distribution Scope of Work: Install 69/46kV-12kV 20 MVA transformer along with 2-12kV breakers on 7' concrete platforms.

Allen – East Prestonsburg: A 0.20 mile segment of this 46 kV line will be relocated to the new station. (SN/SE/WN/WE: 53/61/67/73MVA). (original S2405.2) (**B3353.2**) Estimated Cost: $0.33 M

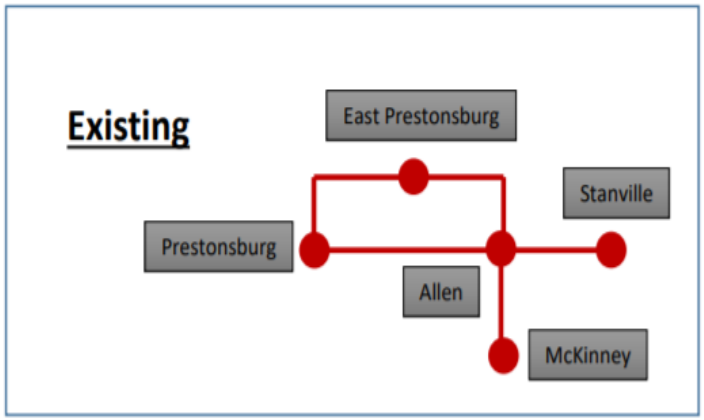
McKinney – Allen: The new line extension will walk around the south and east sides of the existing Allen Station to the new Allen Station being built in the clear. A short segment of new single circuit 69kV line and a short segment of new double circuit 69kV line (both operated at 46 kV) will be added to the line to tie into the new Allen Station bays. (original S2405.3) (**B3353.3**) Estimated Cost: $1.95 M

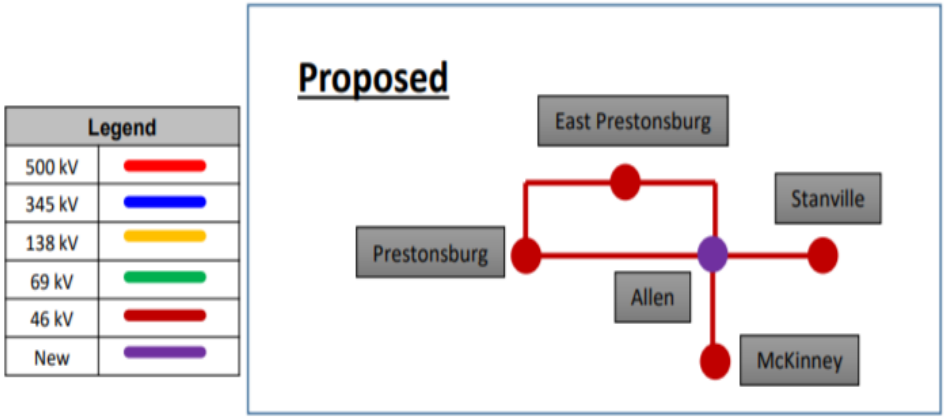
Stanville – Allen: A segment of this line will have to be relocated to the new station (SN/SE/WN/WE: 50/50/63/63MVA). (original S2405.4) (**B3353.4**) Estimated Cost: $0.17 M

Allen – Prestonsburg: 0.25 mile segment of this existing single circuit will be relocated. The relocated line segment will require construction of one custom self-supporting double circuit dead end structure and single circuit suspension structure. A short segment of new double circuit 69kV line (energized at 46 kV) will be added to tie into the new Allen Station bays which will carry Allen – Prestonsburg 46kV and Allen – East Prestonsburg 46kV lines. A temporary 0.15 mile section double circuit line will be constructed to keep Allen – Prestonsburg and Allen – East Prestonsburg 46kV lines energized during construction. (original S2405.5) (**B3353.5**) Estimated Cost: $2.66 M

Remote End Remote end work will be required at Prestonsburg, Stanville, and McKinney stations. (original S2405.6) (**B3353.6**) Estimated Transmission Cost: $0.34 M

Total Transmission Estimated Cost: $16M





AEP Transmission Zone: Baseline
Allen Station Rebuild baseline conversion

Preliminary Facility Rating:

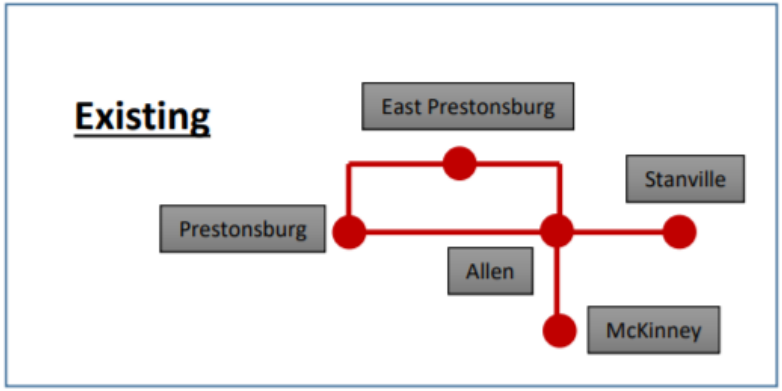
Branch	Ratings (SN/SE/WN/WE)
05ALLEN- 05STANVILLE 46kV	50/50/63/63
05ALLEN- 05EPRESTNS 46kV	53/61/67/73

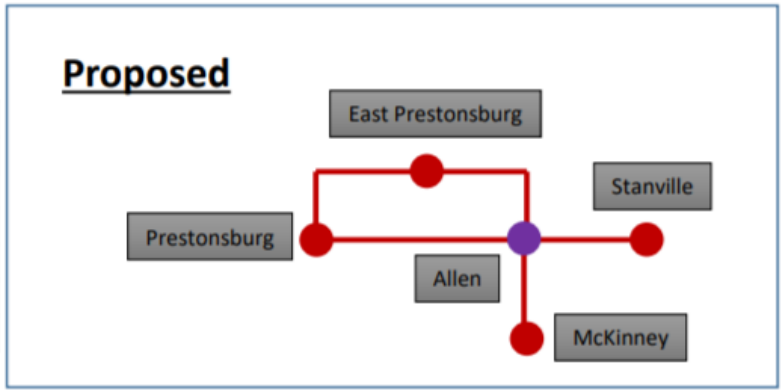
Ancillary Benefits: The proposed conversion of the s2405 to baseline does not add any cost to the RTEP. S2405 address issues identified in AEP-2019-AP025.

Required IS date: 12/1/2026

Projected IS date: 12/31/2023

Previously Presented: 10/15/2021





AEP Transmission Zone: Baseline
Biers Run 69 kV Capacitor

Process Stage: Recommended Solution

Criteria: AEP 715 Criteria

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 RTEP cases

Proposal Window Exclusion: Below 200 kV Exclusion

Problem Statement:

FG: AEP-VD10, AEP-VD11, AEP-VD12, AEP-VD13, AEP-VD14

In 2026 RTEP Summer case, voltage drop violations have been identified at Slate, Mills, Lattaville, and Mill (SCP) 69kV stations for multiple N-1-1 contingency pairs.

Recommended Solution:

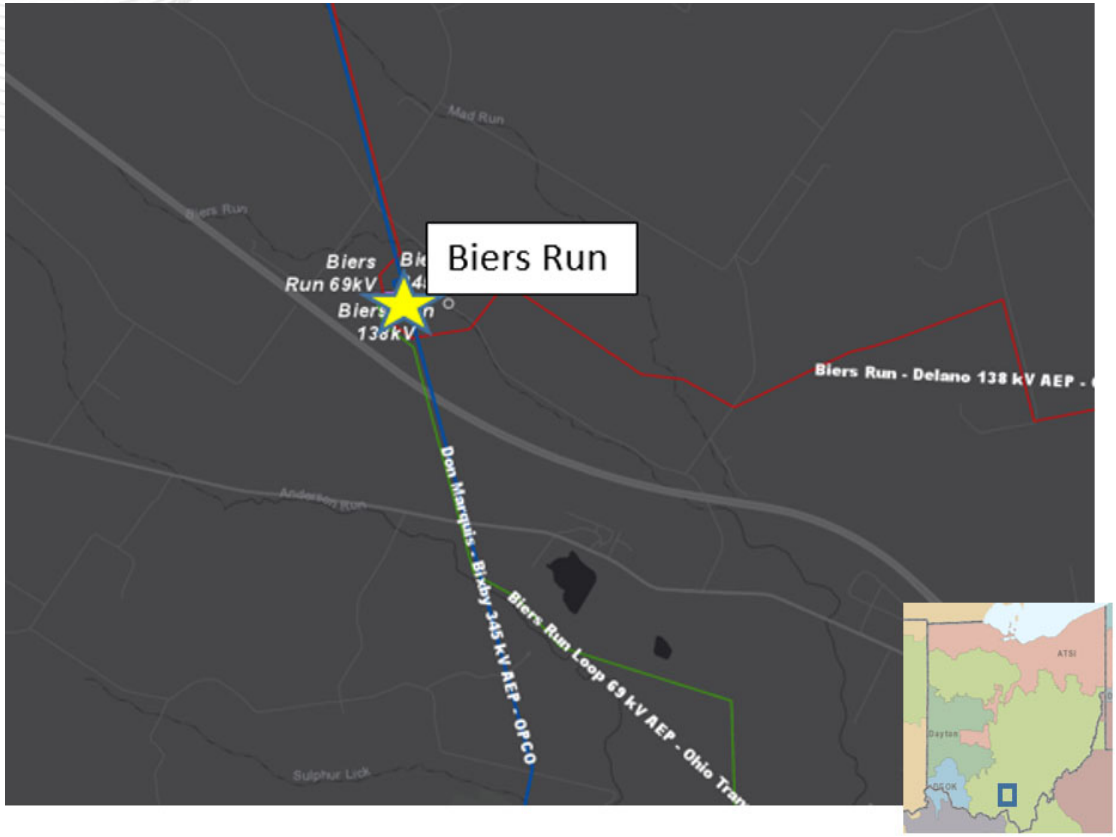
Install a 69 kV 11.5 MVAR capacitor at Biers Run station. (**B3358**)

Transmission Estimated Cost: $0.85 M

Required IS date: 6/1/2026

Projected IS date: 9/1/2025

Previously Presented: 10/15/2021



AEP Transmission Zone: Baseline
North Van Wert Sw. - Van Wert 69 kV Rebuild

Process Stage: Recommended Solution

Criteria: AEP 715 Criteria

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 RTEP cases

Proposal Window Exclusion: Below 200 kV Exclusion

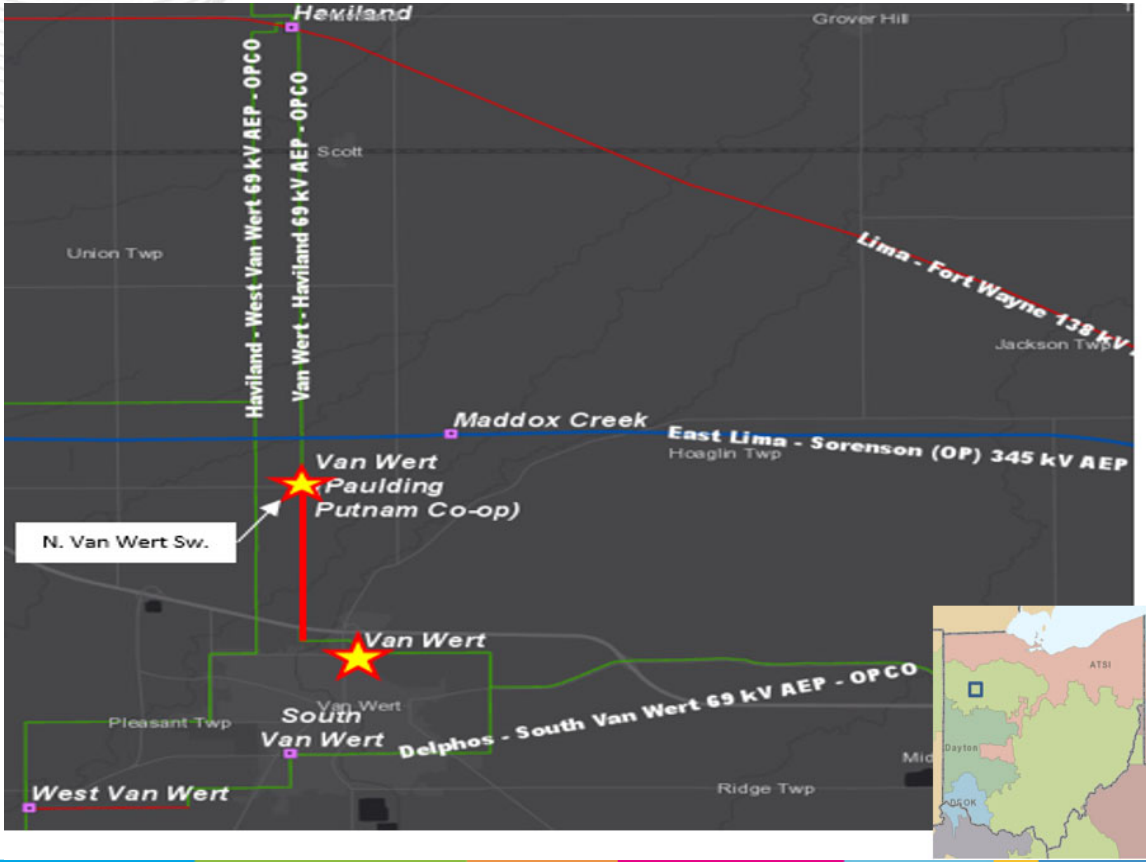
Problem Statement:

FG: AEP-T59, AEP-T60, AEP-T61, AEP-T62

In 2026 RTEP Summer case, 2.3 miles of existing 4/0 Cu conductor on N. Van Wert Sw - Van Wert 69 kV line is overloaded for multiple N-1-1 contingency pairs.

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
05VAN WERT - 05N.VANWRTSS 69KV	54/54/76/76



AEP Transmission Zone: Baseline
North Van Wert Sw. - Van Wert 69 kV Rebuild

Recommended Solution:

Rebuild approximately 2.3 miles of the existing North Van Wert Sw - Van Wert 69 kV line utilizing 556 ACSR conductor. (**B3359**)

Transmission Estimated Cost: $6.2M

Preliminary Facility Rating:

Branch	SN/SE/WN/WE (MVA)
05VAN WERT - 05N.VANWRTSS 69KV	82/90/107/113

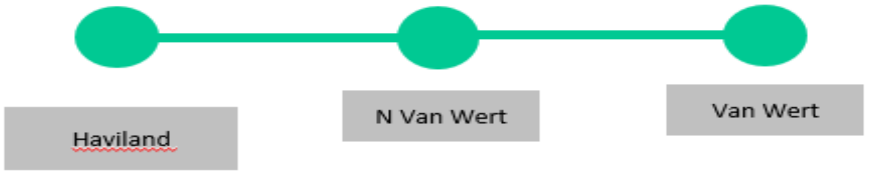
Ancillary Benefits: Project rebuilds a portion of the Van Wert - Haviland line that was originally constructed in in the 1920s and is primarily comprised of wood poles. The conductor being replaced as a part of this proposal dates back to the 1920's. There have been numerous customer speculation load requests in this area that would require this line rebuild if the alternative was chosen.

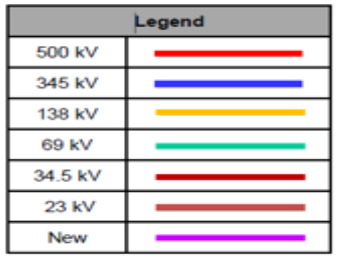
Required IS date: 6/1/2026

Projected IS date: 9/1/2025

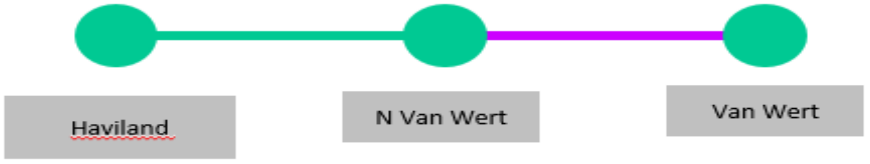
Previously Presented: 10/15/2021

Existing:





Proposed:



AEP Transmission Zone: Baseline Thelma Transformer Replacement

Process Stage: Recommended Solution

Criteria: AEP 715 Criteria

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 RTEP cases

Proposal Window Exclusion: Below 200 kV Exclusion

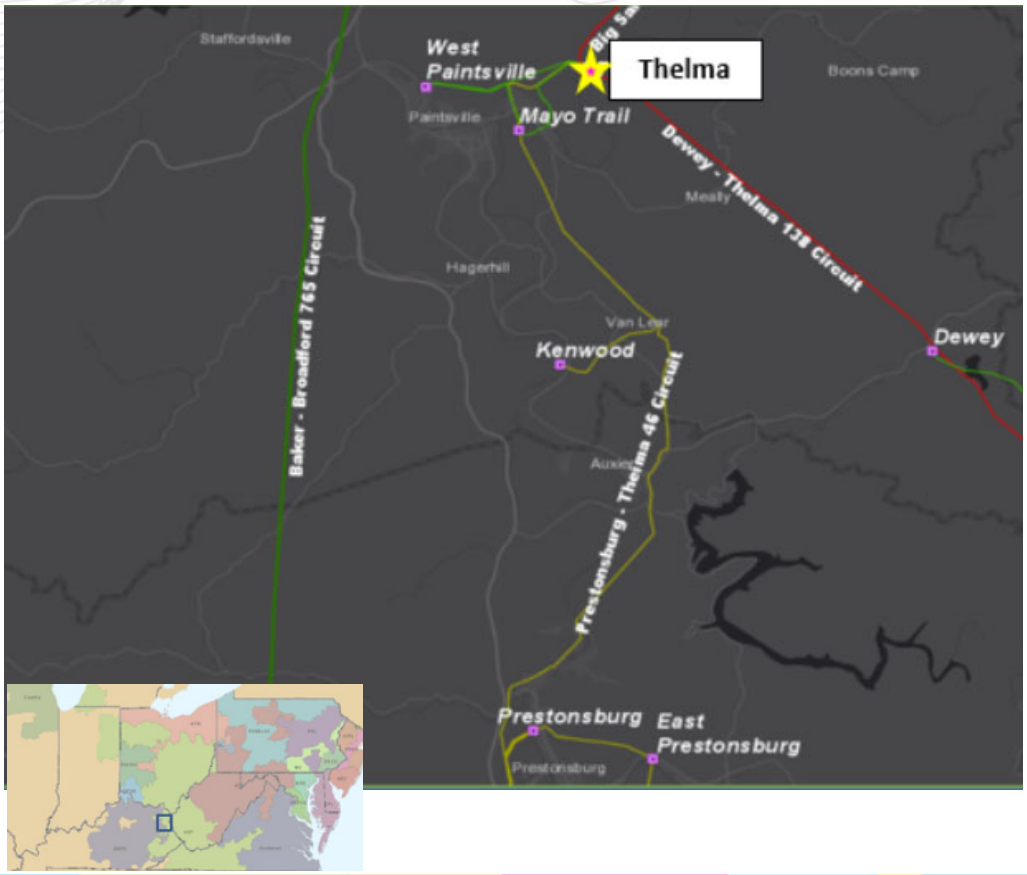
Problem Statement:

FG: AEP-T70, AEP-T71, AEP-T72

In 2026 RTEP Winter case, the 46kV winding of the Thelma TR#1 is overload for multiple N-1-1 contingency pairs.

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
05THELMAEQ – 05THELMA 999/138KV	84/92/84/92
05THELMAEQ – 05THELM1 999/69KV	84/92/84/92
05THELMAEQ – 05THELMA 999/46KV	53/58/53/58



AEP Transmission Zone: Baseline Thelma Transformer Replacement

Recommended Solution:

Replace Thelma Transformer #1 with a 138/69/46kV 130/130/90 MVA transformer and replace 46kV risers and relaying towards Kenwood substation. Existing TR#1 to be used as spare. (**B3360**)

Transmission Estimated Cost: $3.54M

Preliminary Facility Rating:

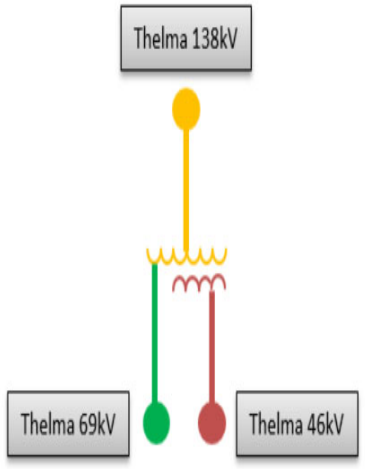
Branch	SN/SE/WN/WE (MVA)
05THELMAEQ – 05THELMA 999/138KV	130/130/130/130
05THELMAEQ – 05THELM1 999/69KV	130/130/130/130
05THELMAEQ – 05THELMA 999/46KV	90/90/90/90

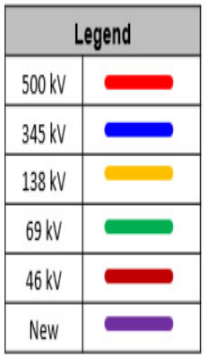
Required IS date: 12/1/2026

Projected IS date: 10/1/2025

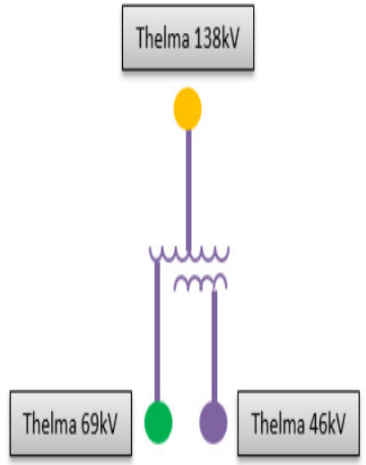
Previously Presented: 10/15/2021

Project System Electrical Diagram (existing)





Project System Electrical Diagram (Proposed)



AEP Transmission Zone: Baseline Prestonsburg - Thelma 46kV Rebuild

Process Stage: Recommended Solution

Criteria: AEP 715 Criteria

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 RTEP cases

Proposal Window Exclusion: Below 200 kV Exclusion

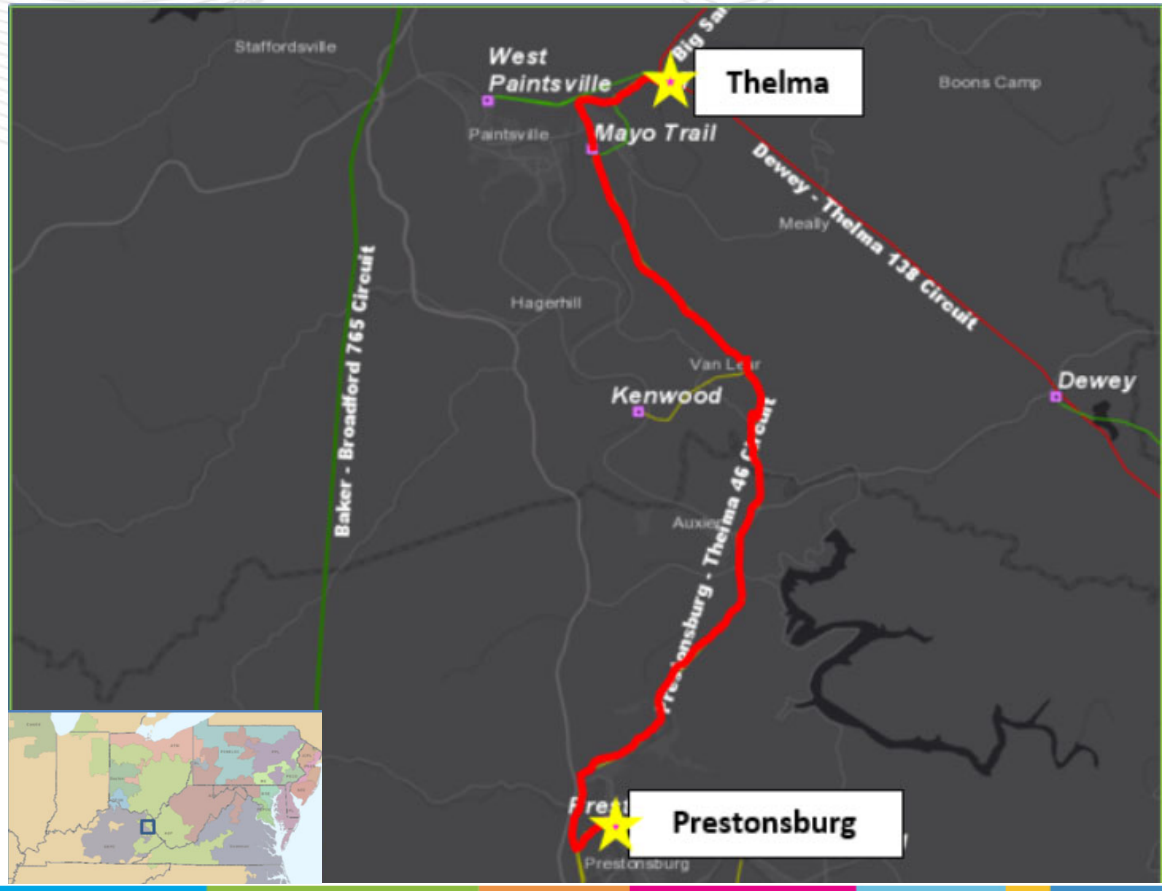
Problem Statement:

FG: AEP-VM10, AEP-VM11, AEP-VM12, AEP-VM13, AEP-VM14, AEP-VM15, AEP-VM16, AEP-VM17, AEP-VM18, AEP-VM19, AEP-VM20, AEP-VM21, AEP-VM22, AEP-VM23, AEP-VM24, AEP-VM25, AEP-VM26, AEP-VM27, AEP-VM28, AEP-VM29, AEP-VM30, AEP-VM31, AEP-VM32, AEP-VM33, AEP-VM34, AEP-VM35, AEP-VM36, AEP-VM37, AEP-VM38, AEP-VM39, AEP-VM40, AEP-VM41, AEP-VD15, AEP-VD16, AEP-VD17, AEP-VD18, AEP-VD19, AEP-VD20, AEP-VD21, AEP-VD22, AEP-VD23, AEP-VD24, AEP-VD25, AEP-VD26, AEP-VD27, AEP-VD28, AEP-VD29, AEP-VD30, AEP-VD31, AEP-VD32, AEP-VD33, AEP-VD34, AEP-VD35, AEP-VD36, AEP-VD37, AEP-VD38, AEP-VD39, AEP-VD40, AEP-VD41, AEP-VD42, AEP-VD43, AEP-VD44, AEP-VD45, AEP-VD46

In 2026 RTEP Winter case, voltage magnitude and voltage drop violations at Mckinney, Salsbury, Allen, East Prestonsburg, Prestonsburg, Middle Creek, Kenwood 46kV buses are identified for multiple N-1-1 contingency pairs.

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
05Thelma – 05KENWDTAP 46KV	50/50/63/63



AEP Transmission Zone: Baseline Prestonsburg - Thelma 46kV Rebuild

Recommended Solution:

Rebuild Prestonsburg - Thelma 46kV circuit, approximately 14 miles. Retire Jenny Wiley SS. (**B3361**)

Transmission Estimated Cost: $33.01M

Preliminary Facility Rating:

Branch	SN/SE/WN/WE (MVA)
05Thelma – 05KENWDTAP 46KV	68/85/86/101
05PRESTNSB– 05KENWDTAP 46KV	68/85/86/101

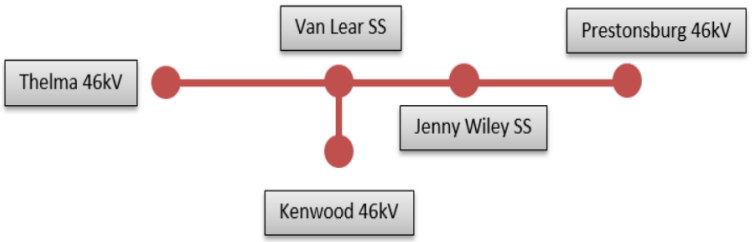
Ancillary Benefits: The proposed solution also completely addresses the identified needs in AEP-2018-AP022.

Required IS date: 12/1/2026

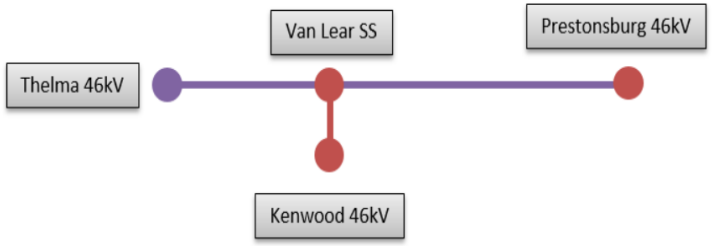
Projected IS date: 10/1/2025

Previously Presented: 10/15/2021

Project System Electrical Diagram (existing)



Project System Electrical Diagram (Proposed)



AEP Transmission Zone: Baseline
Oertels Corner - North Portsmouth 69 kV Rebuild

Process Stage: Recommended Solution

Criteria: AEP 715 Criteria

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 RTEP cases

Proposal Window Exclusion: Below 200 kV Exclusion

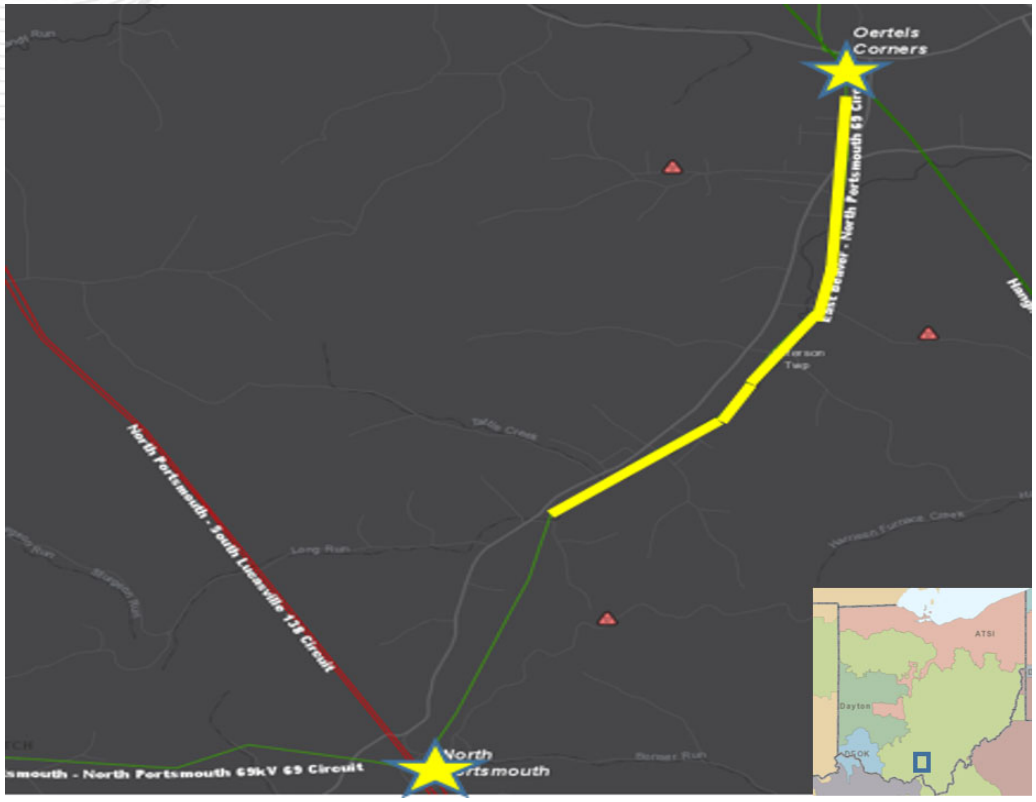
Problem Statement:

FG: AEP-T64, AEP-T65

In 2026 RTEP Summer case, the Oertels Corner - North Portsmouth 69 kV line is overloaded for an N-1-1 contingency pair.

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
05N PORTSM – 05ORTELCRN 69KV	34/34/42/42



AEP Transmission Zone: Baseline
Oertels Corner - North Portsmouth 69 kV Rebuild

Recommended Solution:

Rebuild approximately 3.1 miles of the overloaded conductor on the existing Oertels Corner - North Portsmouth 69 kV line utilizing 556 ACSR . (**B3362**)

Transmission Estimated Cost: $8.0 M

Preliminary Facility Rating:

Branch	SN/SE/WN/WE (MVA)
05N PORTSM – 05ORTELCRN 69KV	44/44/56/56

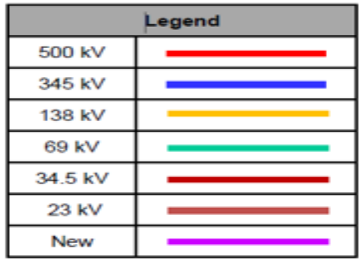
Ancillary Benefits: Project rebuilds a portion of the North Portsmouth - Oertels Corners line that was originally constructed in in the 1940s and is primarily comprised of wood poles. The conductor being replaced as a part of this proposal dates back to the 1940's. There are currently 21 open conditions on this line. There have been 11 momentary and 4 permanent outages (2.1M CMI) over the last 5 years (2015-2020).

Required IS date: 6/1/2026

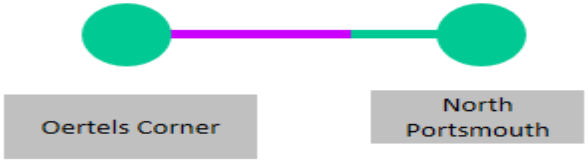
Projected IS date: 9/1/2025

Previously Presented: 10/15/2021

Existing:



Proposed:



ComEd Transmission Zone: Baseline
Line 0108 LaSalle-Mazon 138 kV

Process Stage: Recommended Solution

Criteria: Generator Deliverability

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 Light Load RTEP case

Proposal Window Exclusion: Below 200 kV Exclusion

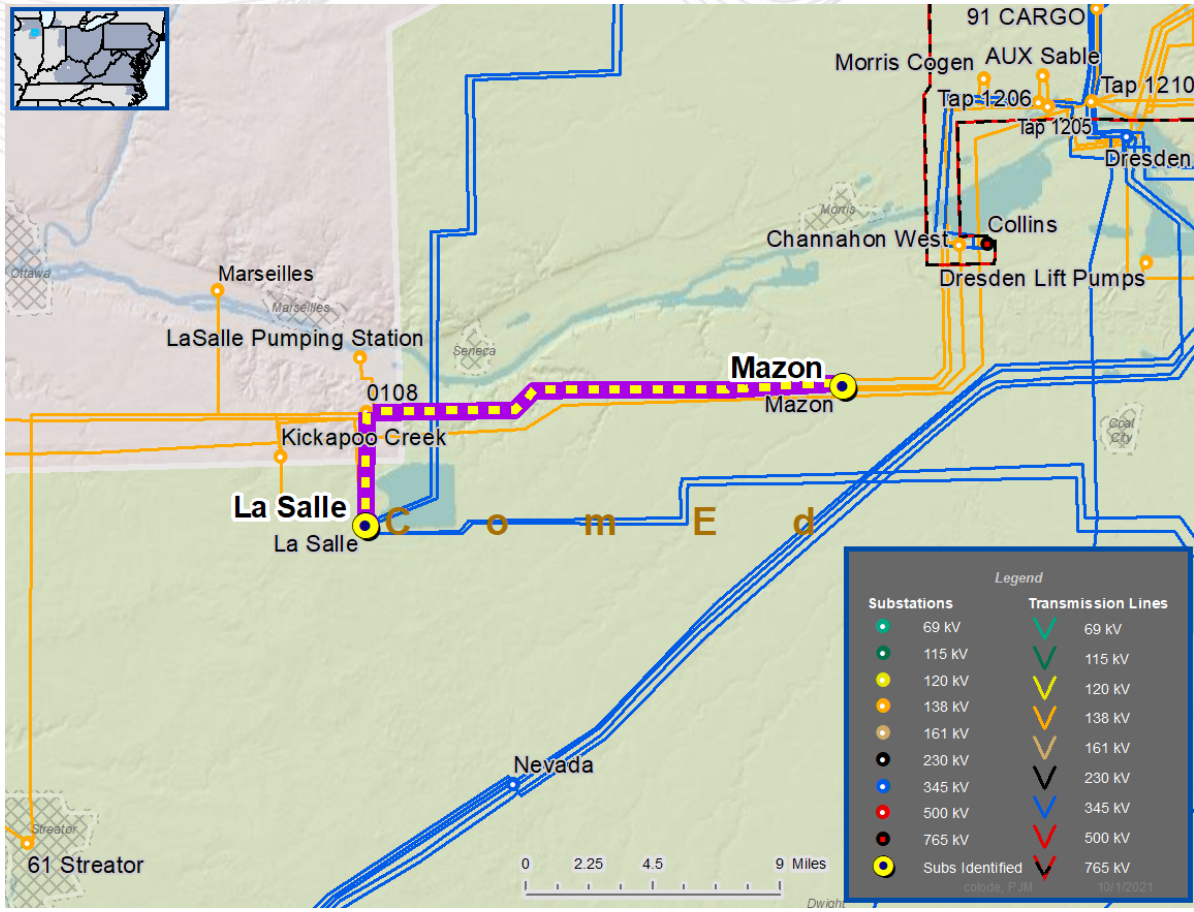
Problem Statement:

FG: GD-LL36

In 2026 Light Load RTEP case, the LaSalle-Mazon 138 kV line is overloaded for an N-2 outage.

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
LASCO STA; B-MAZON ; B 138 kV	173/223/213/253
MAZON ; R-4CORBIN 138 kV	173/223/213/253



ComEd Transmission Zone: Baseline
Line 0108 LaSalle-Mazon 138 kV

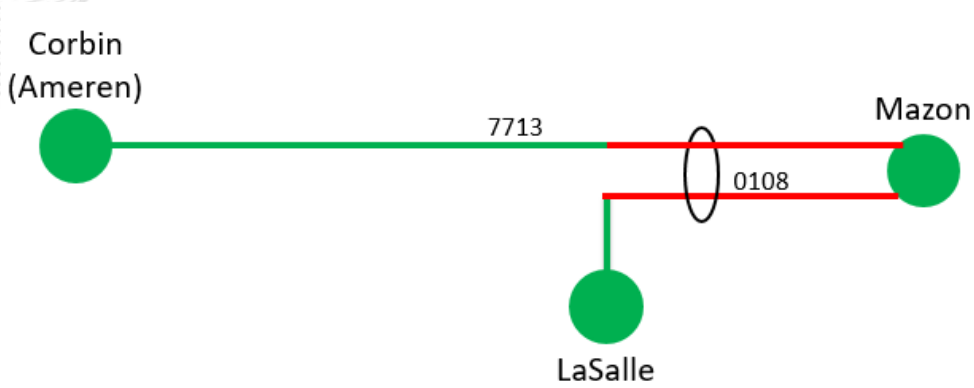
Recommended Solution:

Rebuild a 13 mile section of 138 kV line 0108 between LaSalle and Mazon with 1113 ACSR or higher rated conductor. **(b3677)**

Transmission Estimated Cost: $42.06 M

Preliminary Facility Rating:

Branch	SN/SE/WN/WE (MVA)
LASCO STA; B-MAZON ; B 138 kV	351/442/421/472
MAZON ; R-4CORBIN 138 kV	210/223/252/262



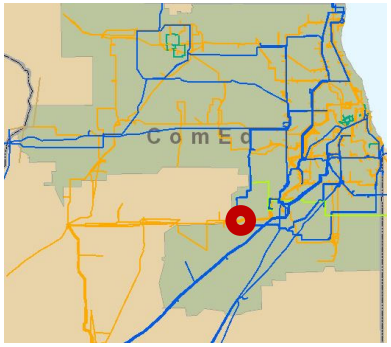
Ancillary Benefits:

Conductor and towers that are 94 years old will be replaced. A portion of line 7713 from Oglesby (future Corbin) to Mazon which shares these double circuit towers will be reconductored due to the rebuild, replacing all of the 94 year old 300 cu conductor on that line.

Required IS date: 11/1/2026

Projected IS date: 12/31/2024

Previously Presented: 10/15/2021



ATSI Transmission Zone: Baseline
Galion 138 kV Reactor

Process Stage: Recommended Solution

Criteria: First Energy 715 Criteria

Assumption Reference: 2026 RTEP assumption

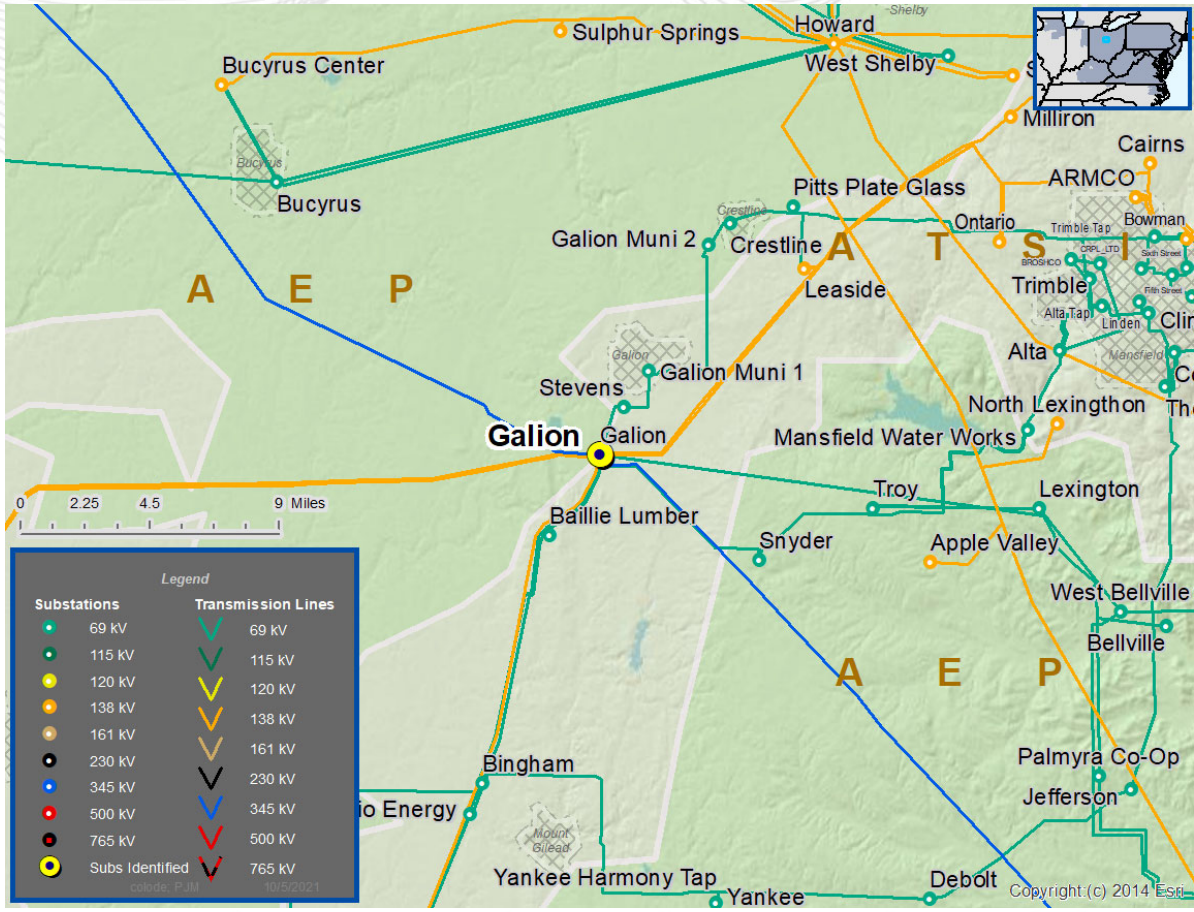
Model Used for Analysis: 2026 Light Load RTEP case

Proposal Window Exclusion: Below 200 kV Exclusion

Problem Statement:

FG: ATSI-VM1

In 2026 Light Load RTEP case, high voltage is observed at Galion 69 kV substation due to N-1.



ATSI Transmission Zone: Baseline
Galion 138 kV Reactor

Recommended Solution:

Expand 138 kV substation; Install 100 MVAr reactor, associated breaker and relaying. **(b3678)**

Total Estimated Cost: $1.70 M

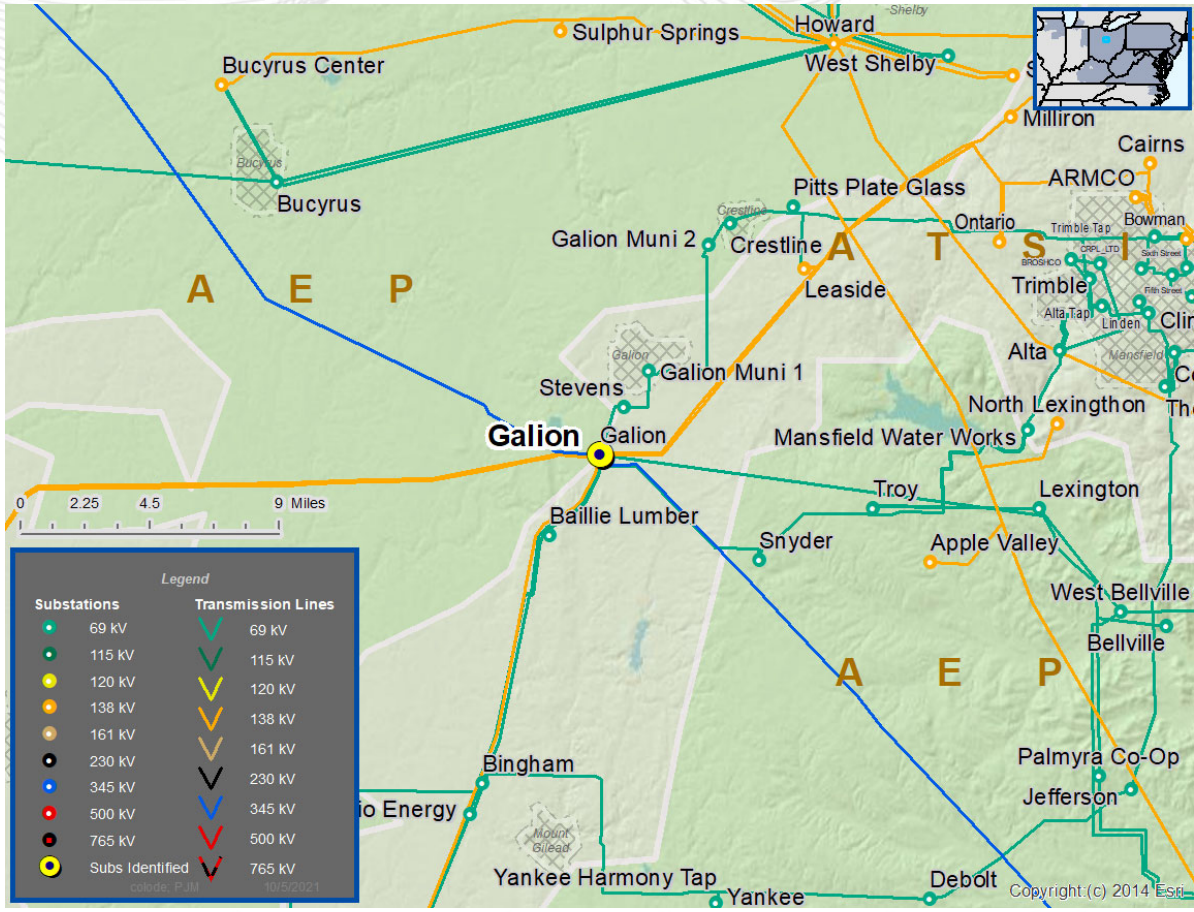
Alternatives: None

Ancillary Benefits:

Voltage reduction across all regional 69 kV, which might experience additional high voltages under less-than-light-load conditions

Required IS date: 06/01/2026

Projected IS date: 06/01/2026



ATSI Transmission Zone: Baseline
West Fremont TR2 Replacement

Process Stage: Recommended Solution

Criteria: First Energy 715 Criteria

Assumption Reference: 2026 RTEP assumption

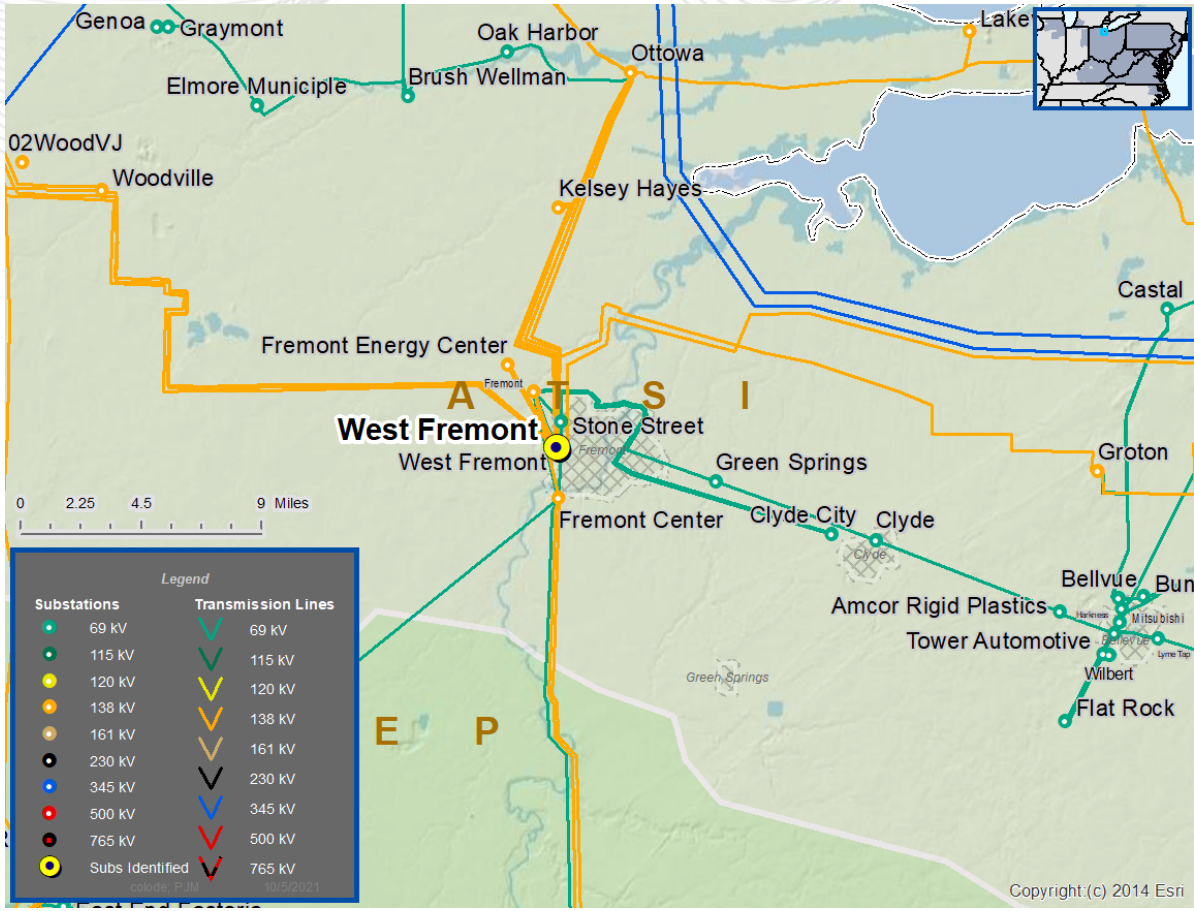
Model Used for Analysis: 2026 Light Load RTEP case

Proposal Window Exclusion: Below 200 kV Exclusion

Problem Statement:

FG: ATSI-VM2

In 2026 Light Load RTEP case, high voltage is observed at West Fremont 69 kV substation due to N-1.



ATSI Transmission Zone: Baseline West Fremont TR2 Replacement

Recommended Solution:

Replace West Fremont 138/69 kV TR2 with a transformer having additional high-side taps. **(b3679)**

Total Estimated Cost: $2.9 M

Alternatives:

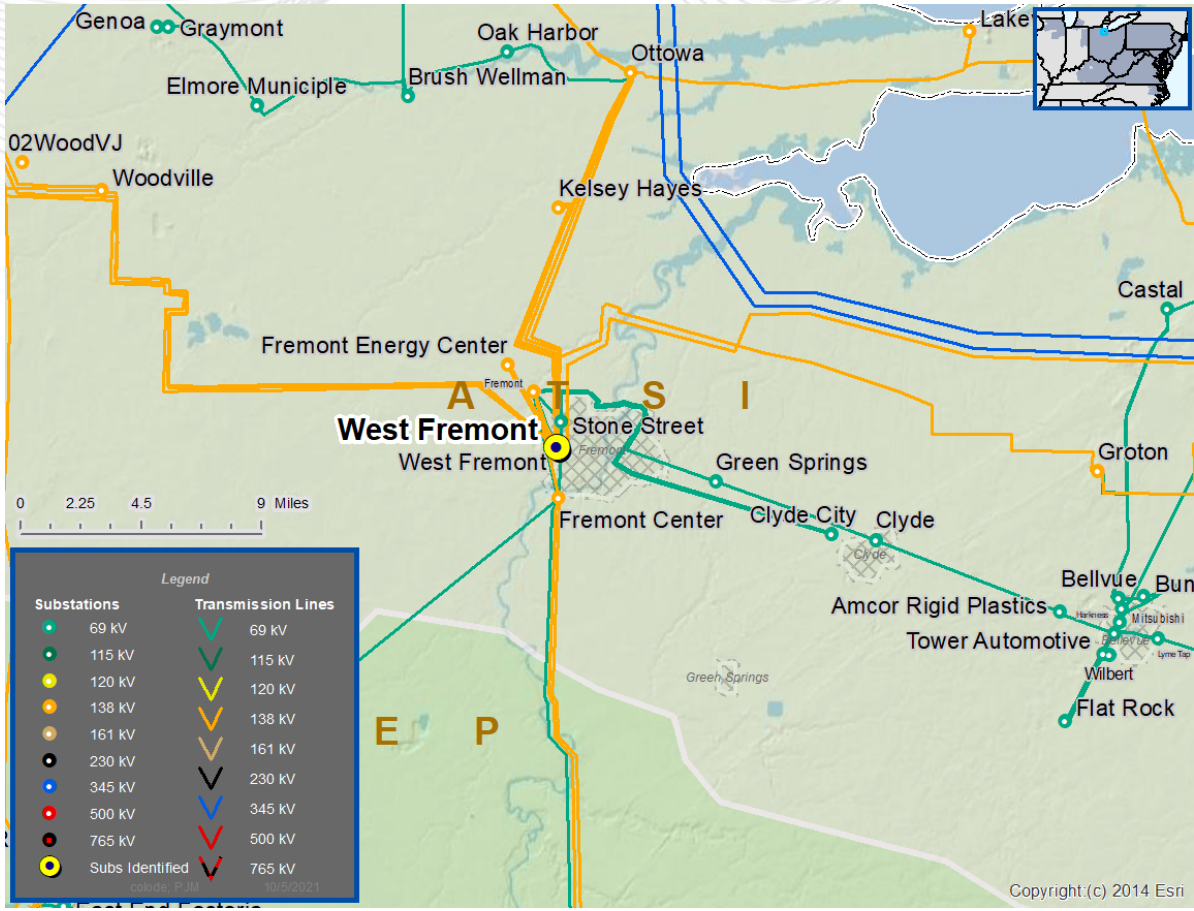
1. Install 100 MVAR reactor at West Fremont
2. Install 100 MVAR reactor at Ottawa

Ancillary Benefits:

By allowing for a high side tap of 145, the transformer will be able to reduce the high voltage in the area is experiencing.

Required IS date: 06/01/2026

Projected IS date: 06/01/2026



ATSI Transmission Zone: Baseline Sanborn 138 kV terminal upgrade

Process Stage: Recommended Solution

Criteria: RTEP Summer N-1-1 Thermal

Assumption Reference: 2026 RTEP assumption

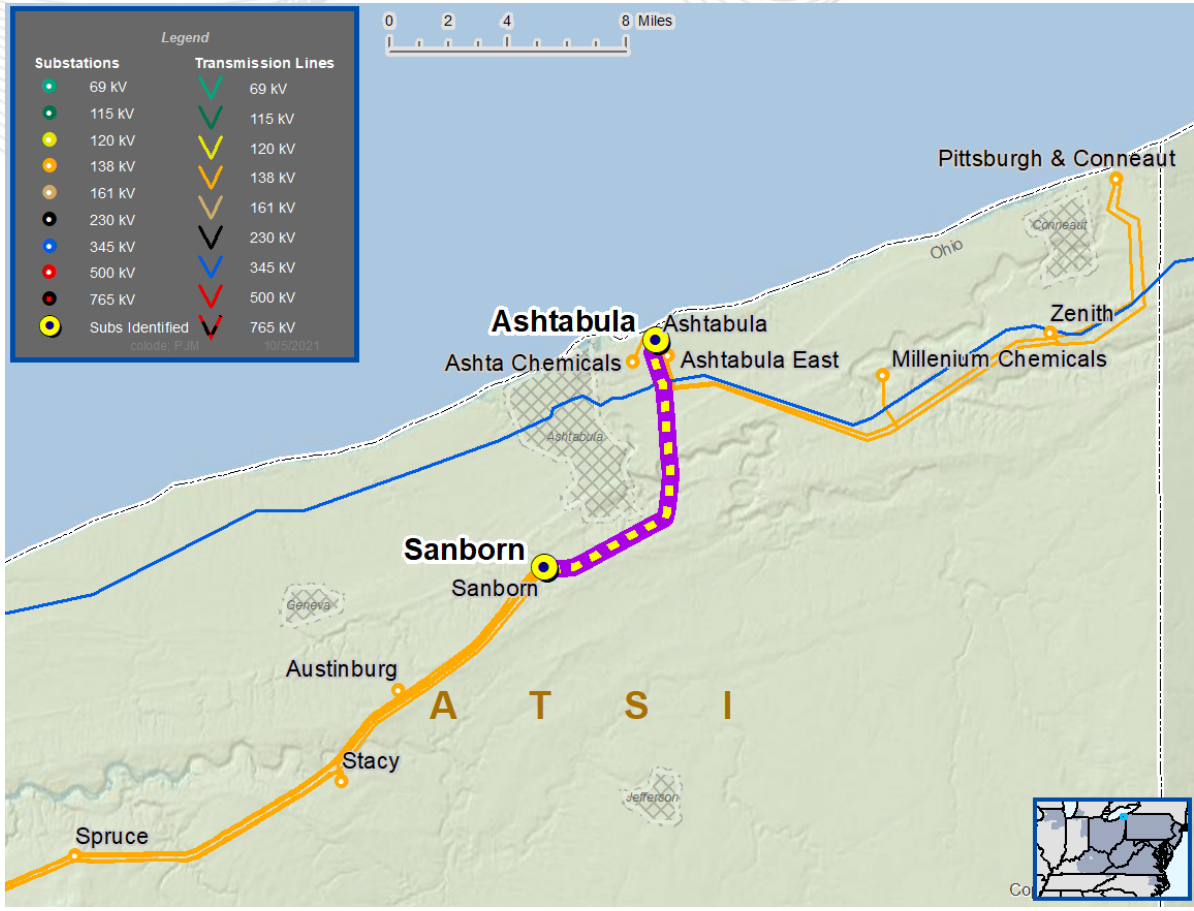
Model Used for Analysis: 2026 Summer RTEP case

Proposal Window Exclusion: Below 200 kV Exclusion

Problem Statement:

FG: N2-ST3

In 2026 Summer RTEP case, Ashtabula to Sanborn Q3 138 kV line is overloaded due to N-1-1.



ATSI Transmission Zone: Baseline Sanborn 138 kV terminal upgrade

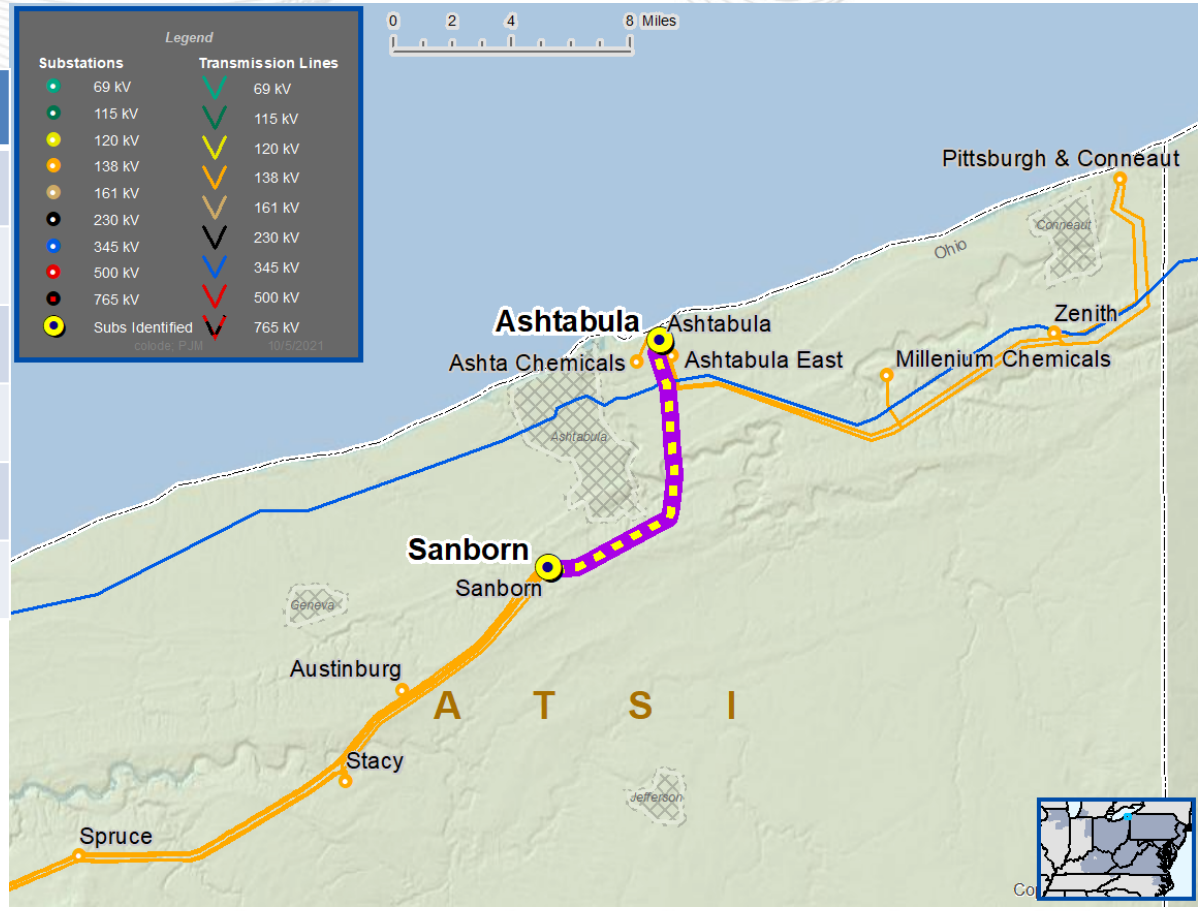
Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
Ashtabula to Sanborn Q2	103/132/147/167
Sanborn to Austinburg Q2	103/132/147/167
Ashtabula to Sanborn Q3	103/132/147/167
Sanborn to Stacy Q3	103/132/147/167
Ashtabula to Sanborn Q4	103/132/147/167
Sanborn to Spruce Q4	103/132/147/167

Recommended Solution:

At Sanborn, replace limiting substation conductors on Ashtabula 138 kV exit to make transmission line conductor the limiting element. **(b3680)**

Total Estimated Cost: $0.3 M



ATSI Transmission Zone: Baseline Sanborn 138 kV terminal upgrade

Preliminary Facility Rating:

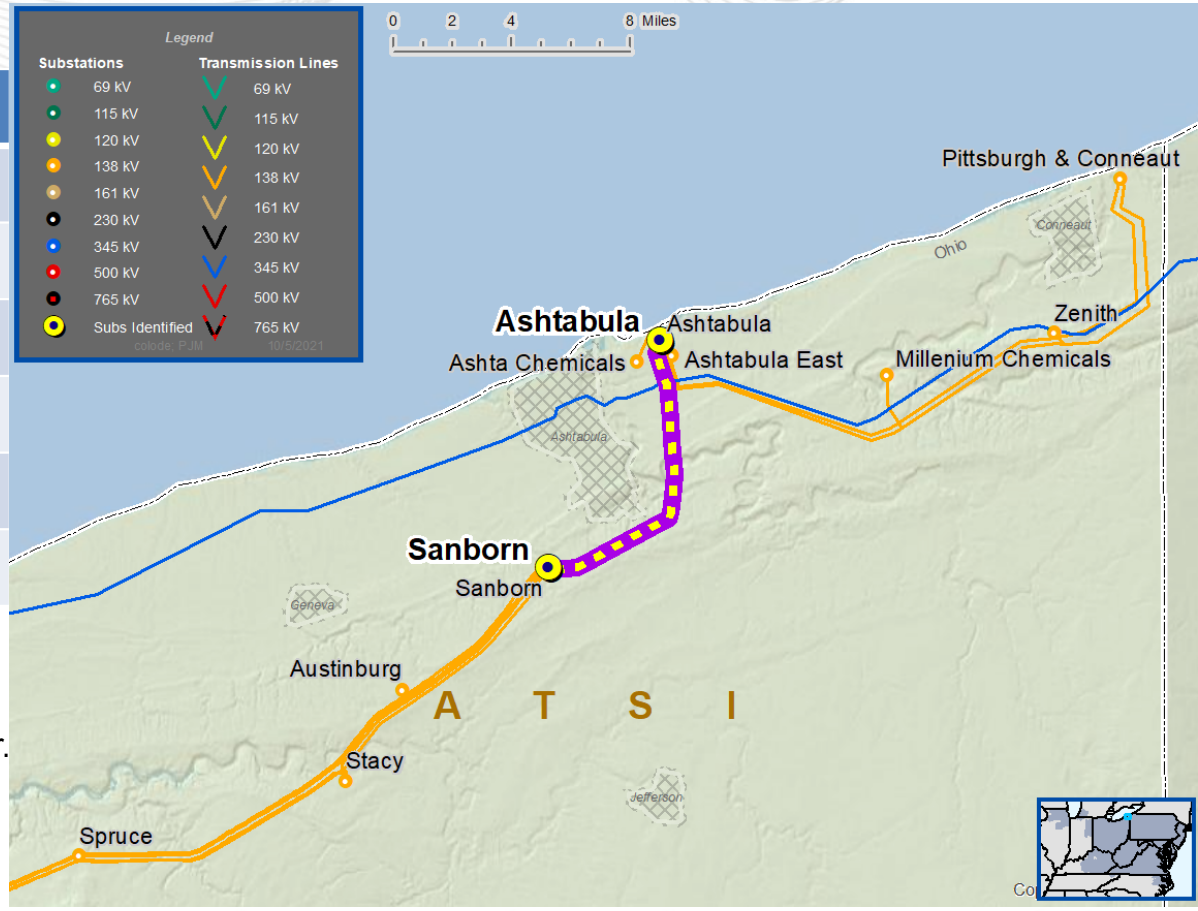
Branch	SN/SE/WN/WE (MVA)
Ashtabula to Sanborn Q2	148/151/166/166
Sanborn to Austinburg Q2	148/151/166/166
Ashtabula to Sanborn Q3	148/151/166/166
Sanborn to Stacy Q3	148/151/166/166
Ashtabula to Sanborn Q4	148/151/166/166
Sanborn to Spruce Q4	148/151/166/166

Alternatives: None

Ancillary Benefits: Upgrading the limiting terminal equipment will increase the ratings on the line segment and no overload will occur.

Required IS date: 12/31/2022

Projected IS date: 12/31/2022



First Review

Baseline Reliability Projects

APS Transmission Zone: Baseline
Messick Road to Ridgeley 138 kV Upgrades

Process Stage: First Review

Criteria: RTEP Generation Deliverability

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 summer RTEP case

Proposal Window Exclusion: Below 200 kV Exclusion

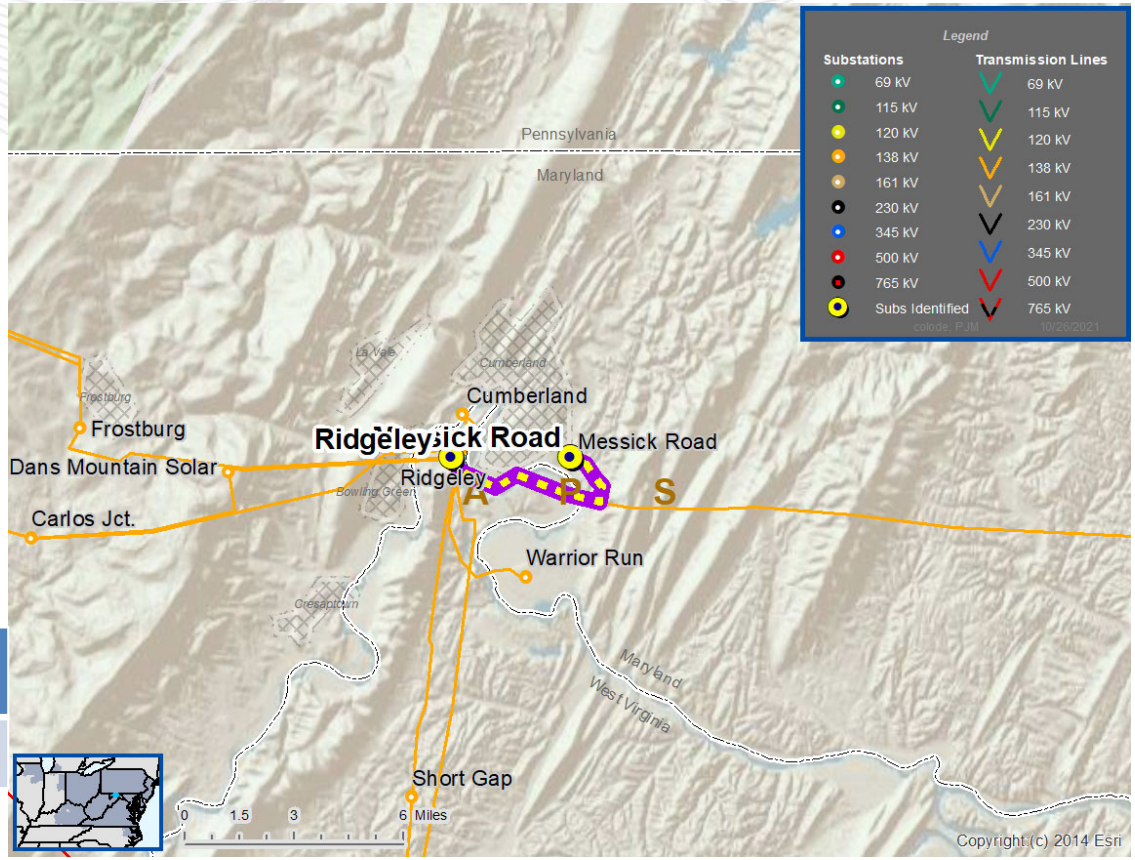
Problem Statement:

FG: GD-S446 and GD-S448

In 2026 Summer RTEP case, Messick Road to Ridgeley 138 kV line is overloaded due to multiple breaker contingencies.

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
01RIDGLY - 01MESSCK 138 kV	221/268/250/287



APS Transmission Zone: Baseline
Messick Road to Ridgeley 138 kV Upgrades

Recommended Solution: Reconductor the existing 556.5 ACSR line segments on the Messick Road-Ridgeley WC4 138 kV line with 954 45/7 ACSR to achieve 308/376 MVA SN/SE and 349/445 MVA WN/WE ratings. Replace the remote end equipment for the Messick Road-Ridgeley WC4 138 kV line.

Transmission Estimated Cost: $11.2M

Preliminary Facility Rating:

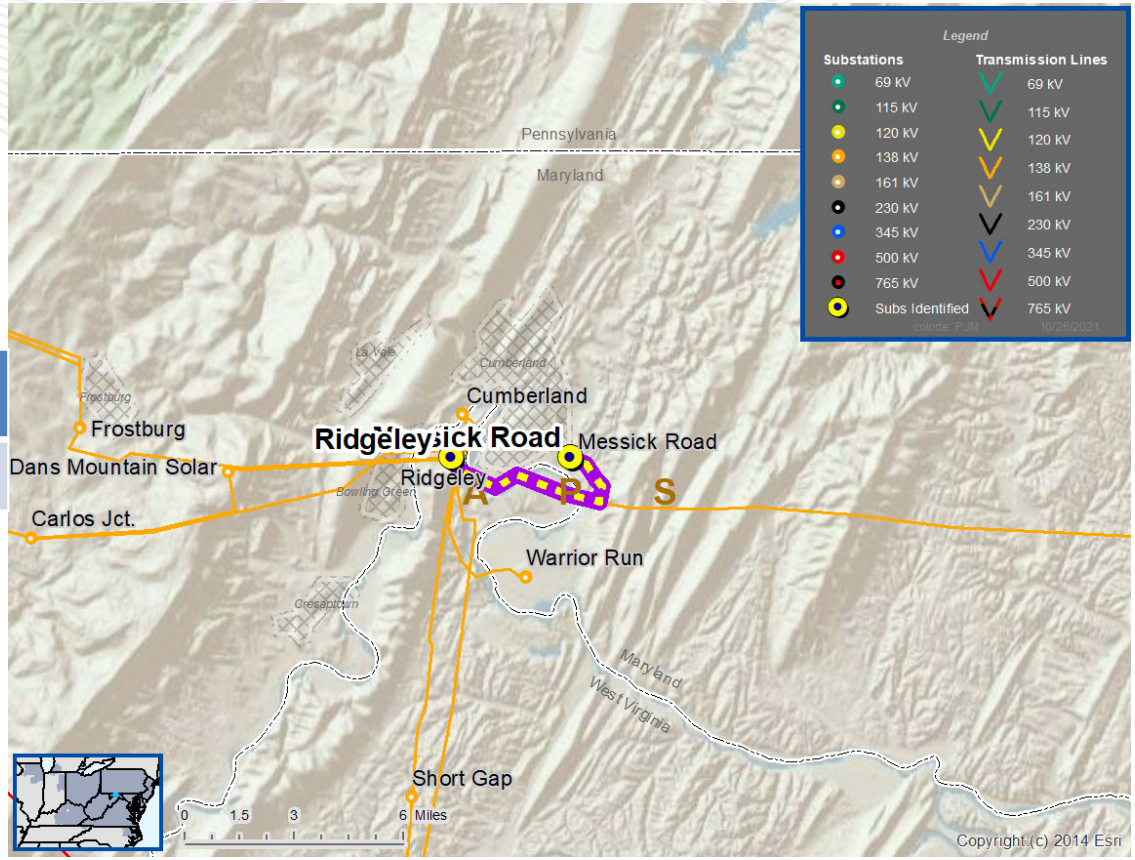
Branch	SN/SE/WN/WE (MVA)
01RIDGLY - 01MESSCK 138 kV	308/376/349/445

Ancillary Benefits: This facility is commonly seen to overload for the loss of various 500 kV lines. This upgrade will result in less operational switching to alleviate N-1 overloads.

Alternatives: No cost effective alternative identified.

Required IS date: 06/01/2026

Projected IS date: 06/01/2026



Cancelation

AMPT Projects in ATSI Transmission Zone: Baseline Amherst (B3153)

Previously Presented: 11/22/2019 SRRTEP-W, 12/18/2019 SRRTEP-W
(Changes are marked in **Red**)

~~**Process Stage:** Recommended Solution~~
~~**Solution Criteria:** TO Planning Criteria~~
~~**Assumption Reference:** AMPT FERC 715~~
~~**Model Used for Analysis:** RTEP 2024 Summer Base Case~~
~~**Proposal Window Exclusion:** FERC 715 (TO Criteria)~~

~~**Problem Statement:**~~
~~Amherst #2 – Amherst #1 – Nordson Line Tap topology violates AMPT TO Criteria for Single point radial exposure (Currently 39.29 MW mile, Limit is set to 30 MW-mile in AMPT TO guidelines). Note: ATSI-2019-004 (added to local plan 10/2019) revises the MW-Mile calculation, violation still valid).~~

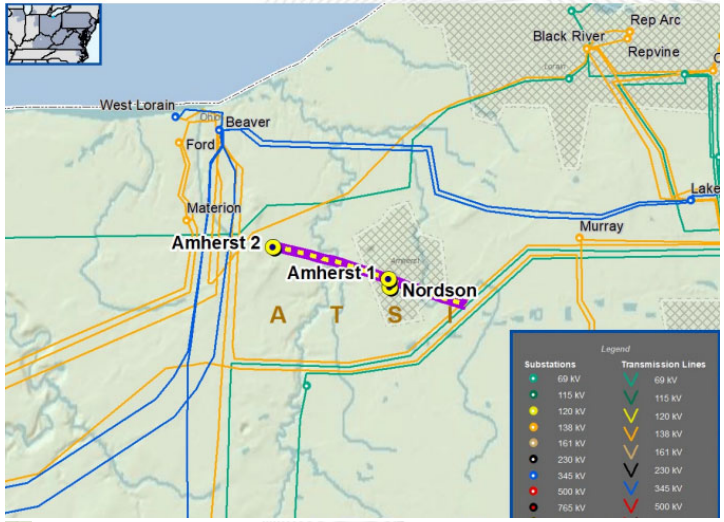
~~**Existing Facility Rating:** N/A~~

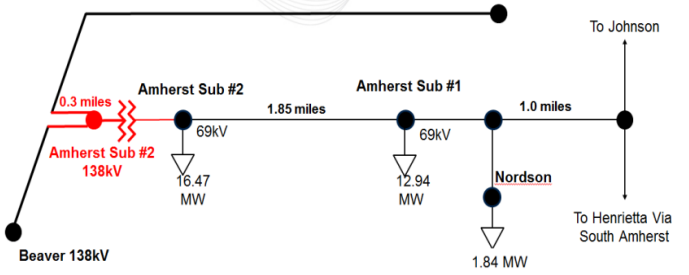
~~**Proposed Solution:**~~
~~Instruct a greenfield 0.3 mile 138kV double circuit line tapping the Beaver-Black River (ATSI) 138 kV line; Install five monopole 138kV double circuit steel structures with concrete foundations and string 1590 ACSR conductor. ($1.3M) Expand the Amherst #2 Substation with the installation of three 138kV circuit breakers; one 138/69/12kV 130 MVA transformers; two 69kV circuit breaker ($5.7M). Install One 69kV breaker towards Nordson ($0.5M)~~

~~**Estimated Cost:** $ 7.5M~~
~~**Alternatives:**~~
~~1) Rebuild existing 69 kV line to double ckt - $9.6M~~
~~2) New Amherst 2 – South Amherst 69 kV line – $10.7M~~
~~3) Same as proposed w/ different route - $8.4M~~

~~Required In-Service: 6/1/2020~~

Reason for Cancelation: This project is being resubmitted as a supplemental project as an administrative change due to the update to AMPT's FERC 715 filing. The project need is still valid; however, this project is no longer a baseline project. See AMPT-2021-005





ATSI Transmission Zone: Baseline Abbe-Johnson #2 69 kV line upgrade

Process Stage: First Review

Criteria: First Energy 715 Criteria

Assumption Reference: 2026 RTEP assumption

Model Used for Analysis: 2026 Summer RTEP case

Proposal Window Exclusion: Below 200 kV Exclusion

Problem Statement:

FG: ATSI-T1, ATSI-T2 and ATSI-T3

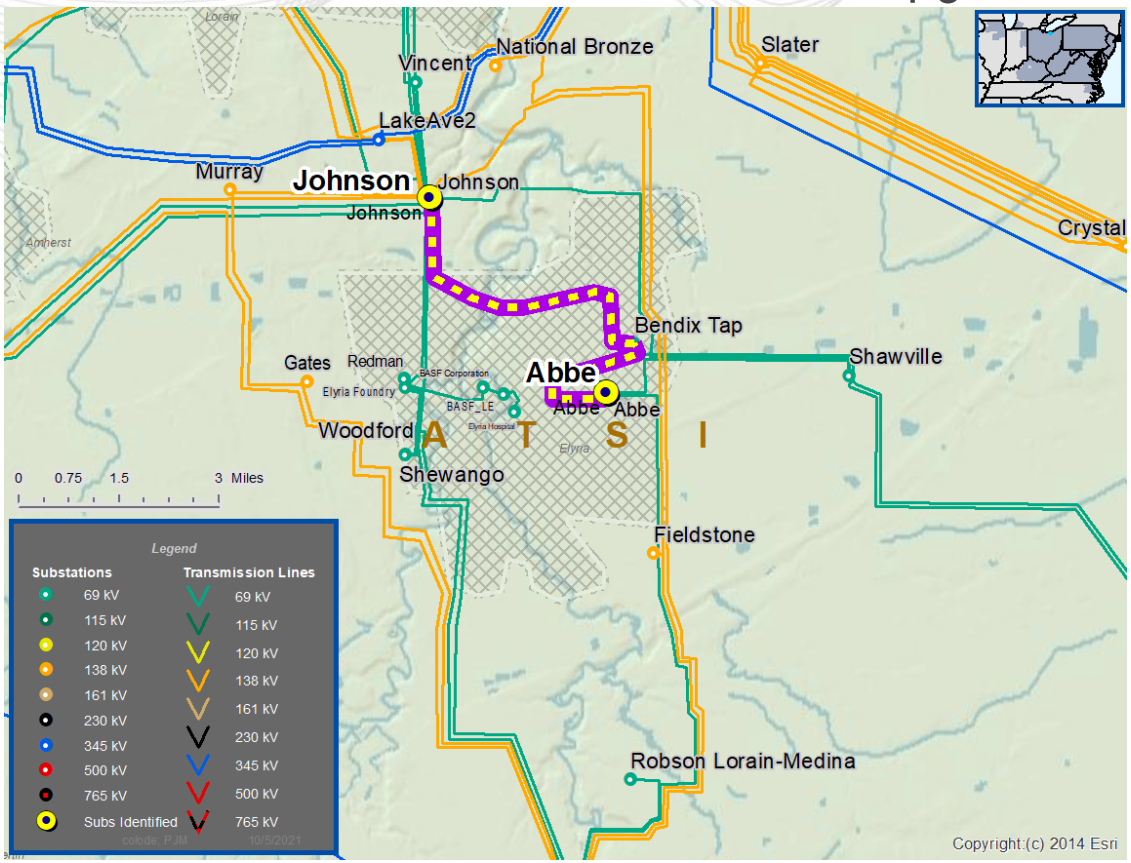
In 2026 Summer RTEP case, multiple segments along the Abbe – Johnson # 2 69 kV line are overloaded due to due to N-1.

Recommended Solution:

Rebuild the Abbe-Johnson #2 69 kV line (5.75 miles). Upgrade switches and disconnects.

Total Estimated Cost: $13.2 M

Reason for Cancellation: The overload isn't observed in the retool 2026 Summer RTEP case.



Revision History

- V1 – 11/16/2021 – Original slides posted
- V2 – 11/19/2021 – Updated header of slide 34 to reflect AMPT project in ATSI transmission zone
  - Slide #20, corrected Projected IS Date
- V3 – 1/26/2021 – Slide #18, corrected Ancillary Benefits