

# Sub Regional RTEP Committee: Western AEP Supplemental Projects

November 19, 2021

# Needs

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:** AEP-2021-AP032

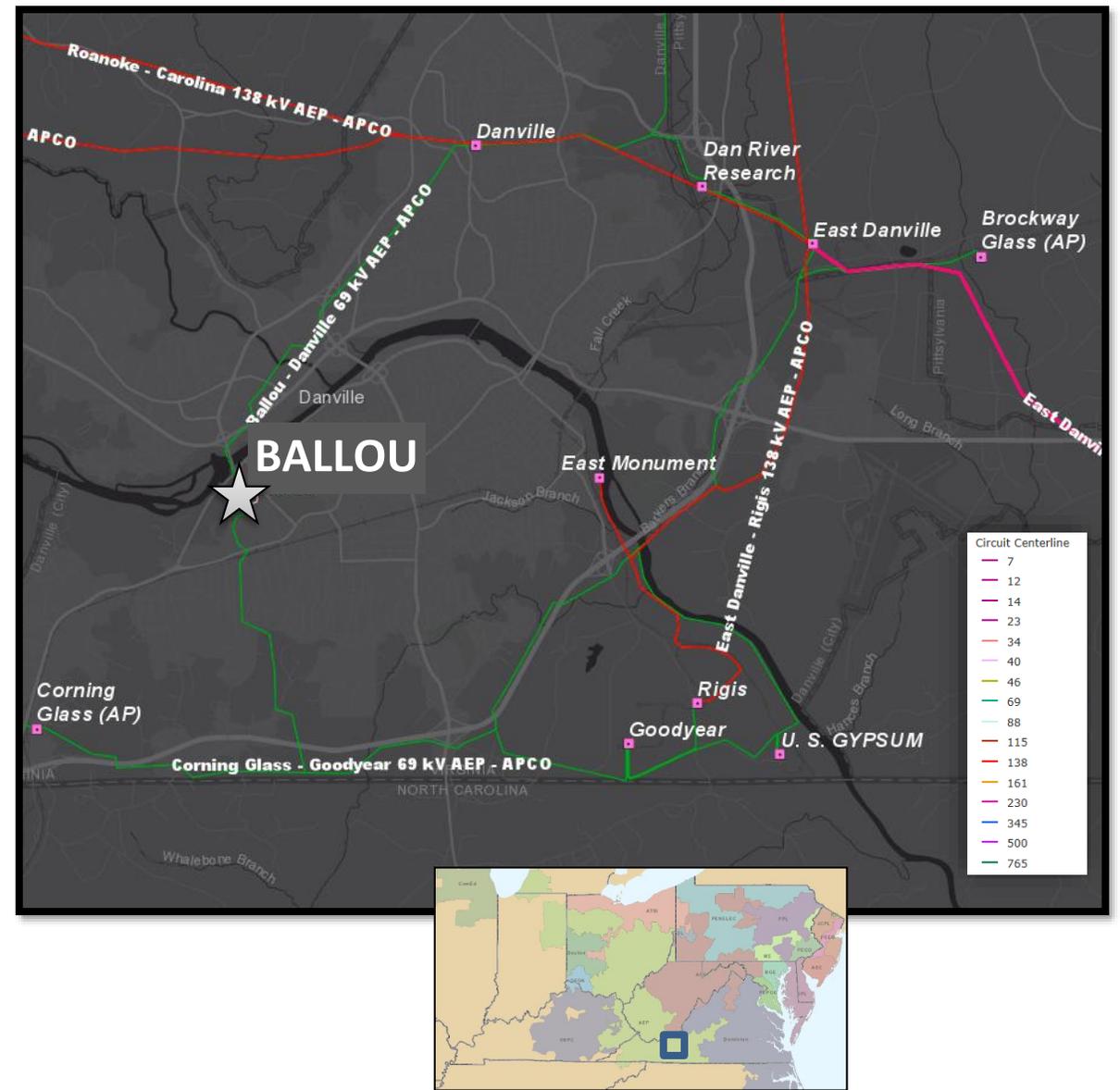
**Process Stage:** Needs Meeting 11/19/2021

**Supplemental Project Driver:** Customer Service

**Specific Assumptions Reference:** AEP Connection Requirements for the AEP Transmission System (AEP Assumptions Slide 12)

**Problem Statement:**

- The City of Danville requested a new 69 kV delivery point located at Ballou Station in Danville, VA to provide up to 25 MW of peak load (with an average load of 7-10 MW).



# AEP Transmission Zone M-3 Process Logan and Mingo County, Virginia

**Need Number:** AEP-2021-AP033

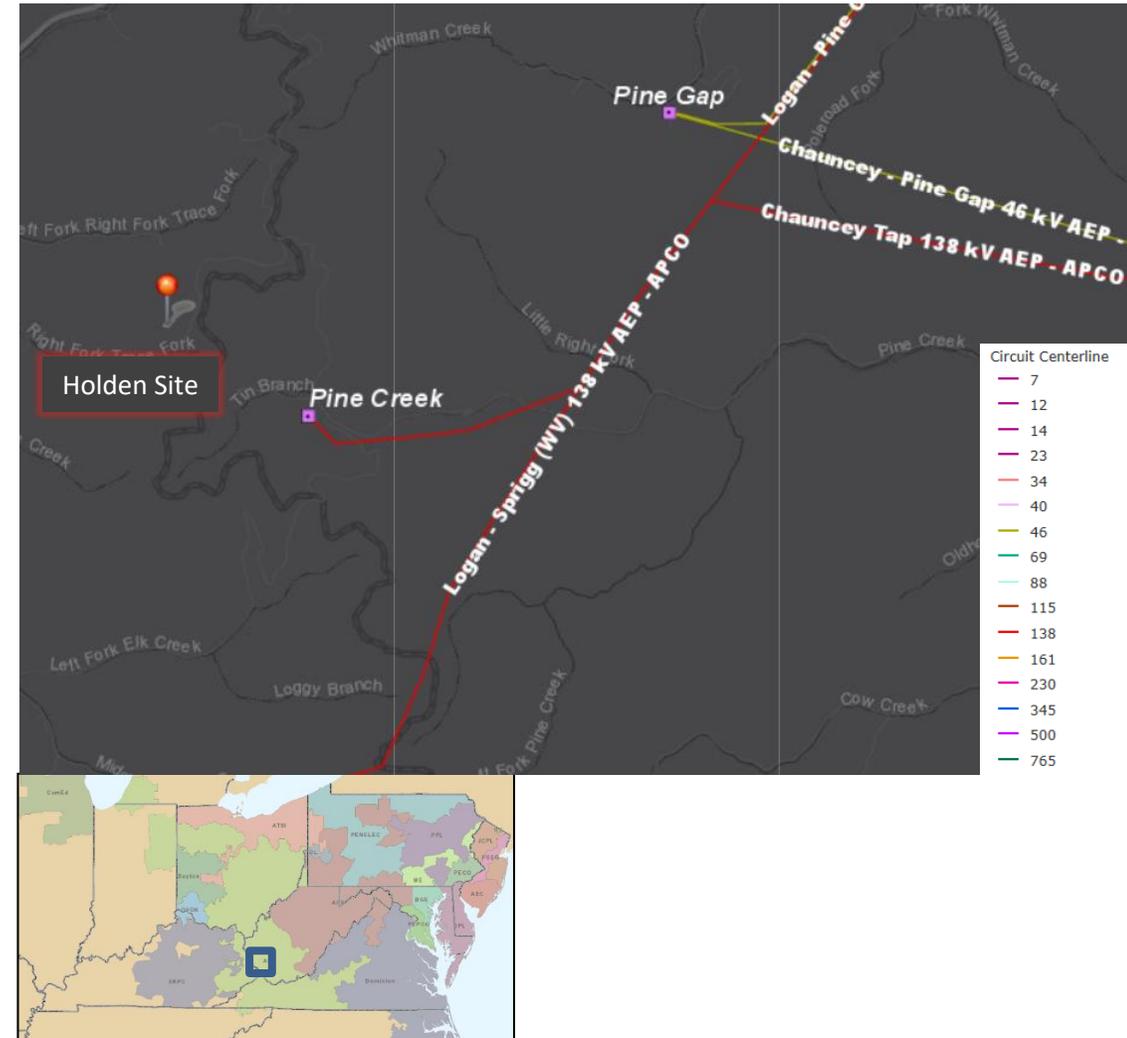
**Process Stage:** Needs Meeting 11/19/2021

**Supplemental Project Driver:** Customer Service

**Specific Assumptions Reference:** AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 12)

**Problem Statement:**

- AEP Distribution has requested new transmission service to a new distribution station, Holden, supporting the Buck Harless Industrial Park site in Whitman, WV.
- This station is the result of West Virginia House Bill 144. The intent of the program is to support the development of Business Ready Sites in WV.
- Initial load at the Holden Site will transfer from the existing Pine Creek station site. Pine Creek Station is constructed using wood poles in an arrangement that is not expandable. There are also site constraints at Pine Creek preventing station expansion onto adjacent property. The site constraints prevent the industrial park site from being served by the existing Pine Creek station location. Adding new circuits for the industrial park would require replacement of the distribution structures and expansion of the station which is not feasible in the current location.
- At Pine Creek, 138 kV Circuit Breaker XT1 is an oil breaker that are difficult to maintain due to the required oil handling. There is an increased potential for oil spills during routine maintenance and failures with these types of breakers. There are 7 remaining AHE-54-138-5000 circuit breakers on the AEP system, including the 1 at this station. Spare parts are increasingly more difficult to obtain because the manufacturer no longer supports this model type.



# AEP Transmission Zone M-3 Process Albion, Indiana

**Need Number:** AEP-2021-IM031

**Process Stage:** Needs Meeting: 11/19/2021

**Supplemental Project Driver:** Equipment Condition/Performance/Risk

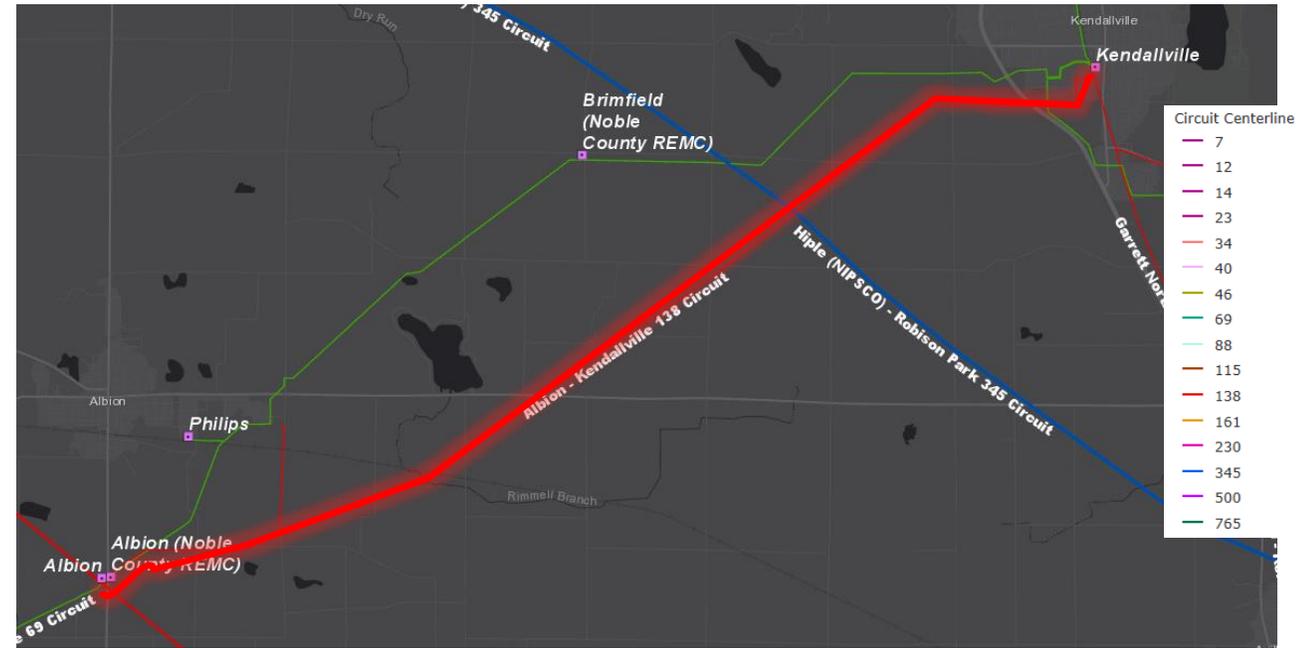
**Specific Assumption Reference:** AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 13)

**Model:** N/A

**Problem Statement:**

### Albion – Kendallville 138kV line (9.75 miles):

- 1972 wood H frame construction
- Since 2015 there have been 2 momentary outages to this line
- The structures on this line fail to meet NESC Grade B, AEP structural strength standards, grounding standards and shield angle requirements.
- 10 structures were investigated at the ground and 44 structures were assessed by drone. The following conditions were noted.
  - Nearly all structures had moderate to heavy insect or woodpecker damage, and light to moderate shell decay. A few also had decay pockets at ground line.
  - All H Frames have light to moderate decay
  - ~14% had flashed insulators
  - Light to moderate corrosion on hardware
- Currently 23 (25% of line) structures have at least one open condition
  - 28 total conditions include rotting, cracked, burnt, leaning or woodpecker affected structures; broken conductor, shield wire and ground lead wire



# AEP Transmission Zone M-3 Process Cass County, MI

**Need Number:** AEP-2021-IM032

**Process Stage:** Need Meeting 11/19/2021

**Supplemental Project Driver:** Equipment Condition/Performance/Risk

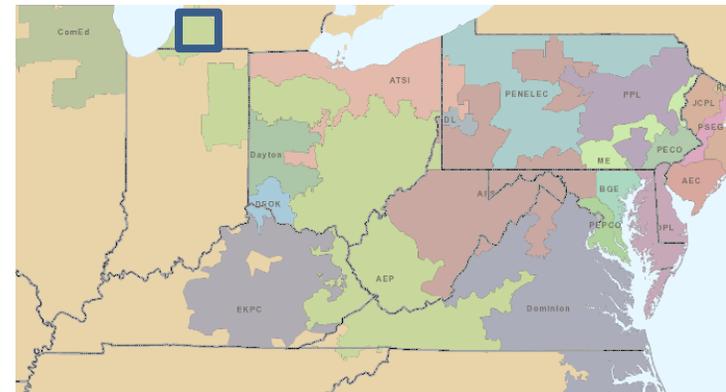
**Specific Assumption Reference:** AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 13)

**Model:** N/A

**Problem Statement:**

**Colby – Pokagon 69kV (11.22 miles):**

- 179 of the 183 poles are original 1967 wood poles.
- Original 1967 336 ACSR 18/1 Merlin conductor
- Since 2015 there have been 5 momentary outages
- Structures fail NESC Grade B, AEP Strength requirements, ASCE structural strength standards, and grounding methods utilize butt wraps on every other structure
- Out of the 58 assessed structures
  - 50% have moderate to significant insect and bird damage on the shell
  - About 38% of the assessed structures have heart rot decay at the pole base
- There are 80 structures with at least one open condition (not including forestry), which relate to 44% of the structures on the line
- There are a total of 90 open conditions on this line, not including forestry



# AEP Transmission Zone M-3 Process Muncie, IN

**Need Number:** AEP-2021-IM034

**Process Stage:** Need Meeting 11/19/2021

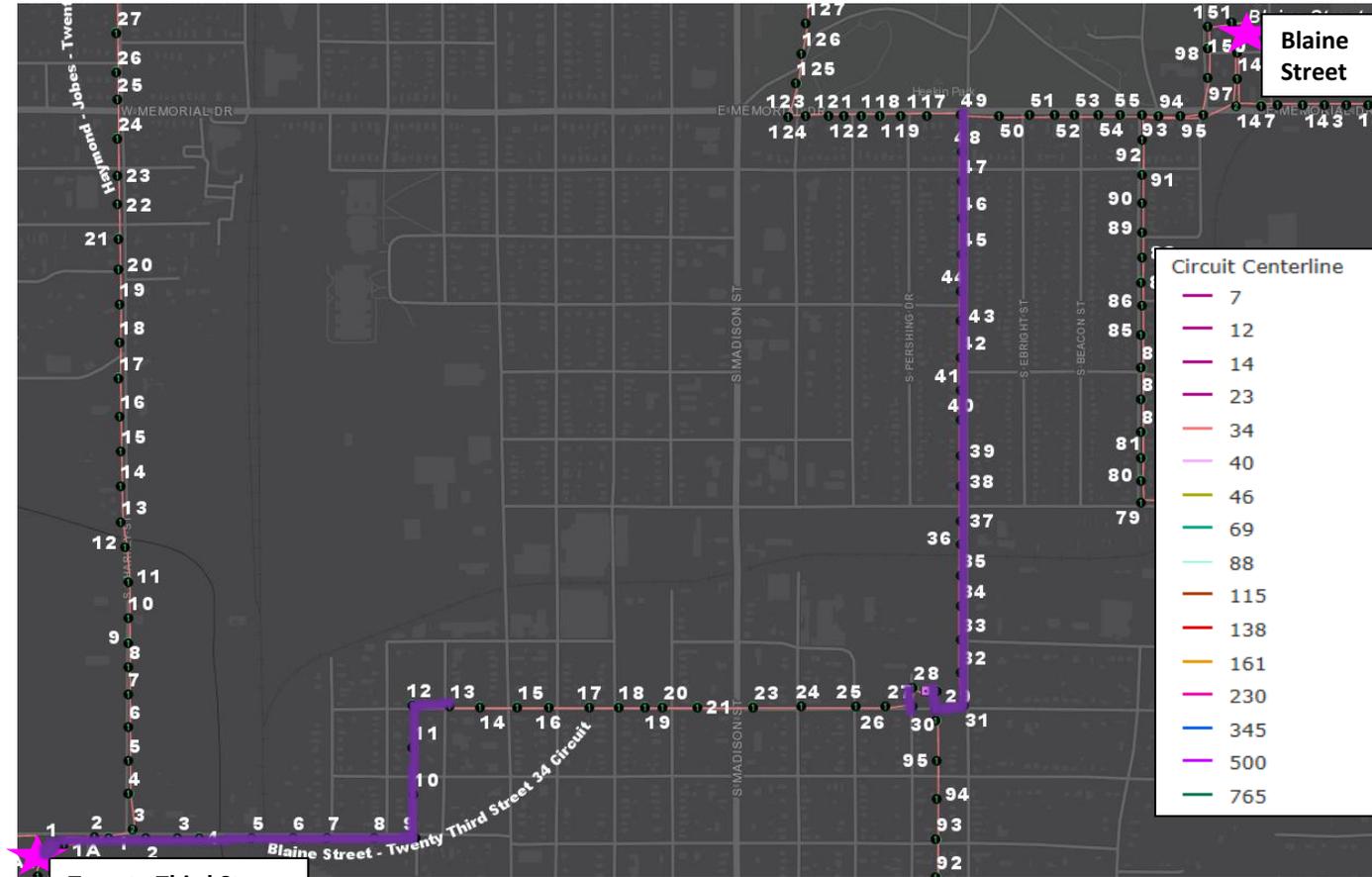
**Project Driver:** Equipment Material Condition, Performance and Risk

**Specific Assumption Reference:** AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions slide 13)

**Problem Statement:**

**Twenty Third Street – Blaine Street 34.5 kV (Vintage 1976)**

- Length of Line: 1.20 miles
- Total structure count: 54 with 42 dating back to original installation.
- Line Construction Type:
  - Wood pole structure with cross arm construction.
  - Porcelain vertical post insulators
- Conductor Type:
  - 556,500 CM ALUM/1350 19 Dahlia (0.68 mi)
  - 795,000 CM ALUM/1350 (0.52 mi)
- Condition Summary
  - Number of open conditions: 5 structure open conditions with 1 structure related open conditions.
    - Open conditions include broken pole, shielding grounding improperly installed and missing ground lead wires.
  - Based on the ground crew and aerial drone assessment of 30 structures:
    - Approximately 67% of the poles assessed have moderate to heavy shell damage, insect damage or woodpecker damage
    - Approximately 50% of the poles assessed have heart rot
  - The grounding method utilizes butt wraps on every other structure, providing reduced lightning protection for the line.
  - Structures fail NESC Grade B, AEP structural strength requirements, and ASCE structural strength requirements.



Twenty Third St



# AEP Transmission Zone M-3 Process Muncie, IN

**Need Number:** AEP-2021-IM034

**Process Stage:** Need Meeting 11/19/2021

**Project Driver:** Equipment Material Condition, Performance and Risk

**Specific Assumption Reference:** AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions slide 13)

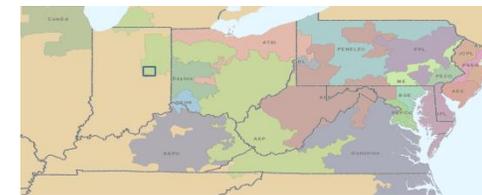
**Problem Statement:**

**Twenty Third Street 138/34.5 kV transformer #1:**

- Install date: 1965
- Dielectric strength breakdown due to elevated moisture levels from gasket leaks or breakdown in oil or paper/pressboard insulation. This impairs the unit's ability to withstand electrical faults.
- Aging insulating paper material becoming brittle allowing for increased susceptibility of short circuit faults causing failure of the main tank.
- Bushings are at risk of failure due to changes of bushing dielectric data. Failure of the bushings may cause a failure or loss of service of the transformer.

**Twenty Third Street 138/34.5 kV transformer #2:**

- Install date: 1970
- Dielectric strength breakdown due to elevated moisture levels from gasket leaks or breakdown in oil or paper/pressboard insulation. This impairs the unit's ability to withstand electrical faults.
- Aging insulating paper material become brittle and recent trends on Ethane and Methane indicating overheating temperatures within the tank impair the unit's ability to withstand future short circuit fault events.
- All bushings showed major changes in power factor from original values. Bushings are at risk of failure due to changes of bushing dielectric data. Failure of the bushings may cause a failure or loss of service of the transformer.



**Need Number:** AEP-2021-IM035

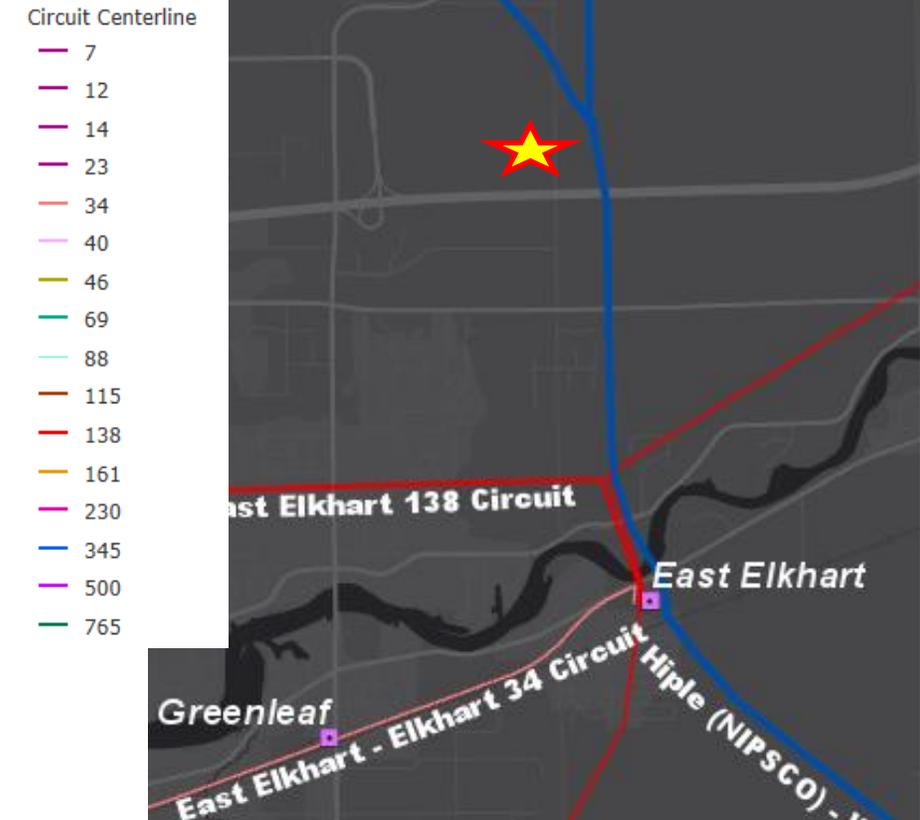
**Process Stage:** Needs Meeting 11/19/2021

**Project Driver:** Customer Service

**Specific Assumption Reference:** AEP Connection Requirements for the AEP Transmission System (AEP Assumptions Slide 12)

**Problem Statement:**

Retail customer has requested new transmission service in Elkhart, Indiana by January 2023. Anticipated load is approximately 8.5 MW.



**Need Number:** AEP-2021-IM036

**Process Stage:** Need Meeting 11/19/2021

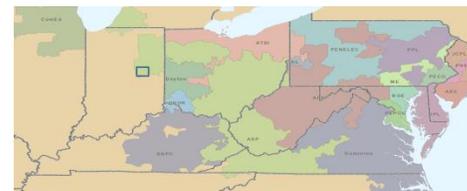
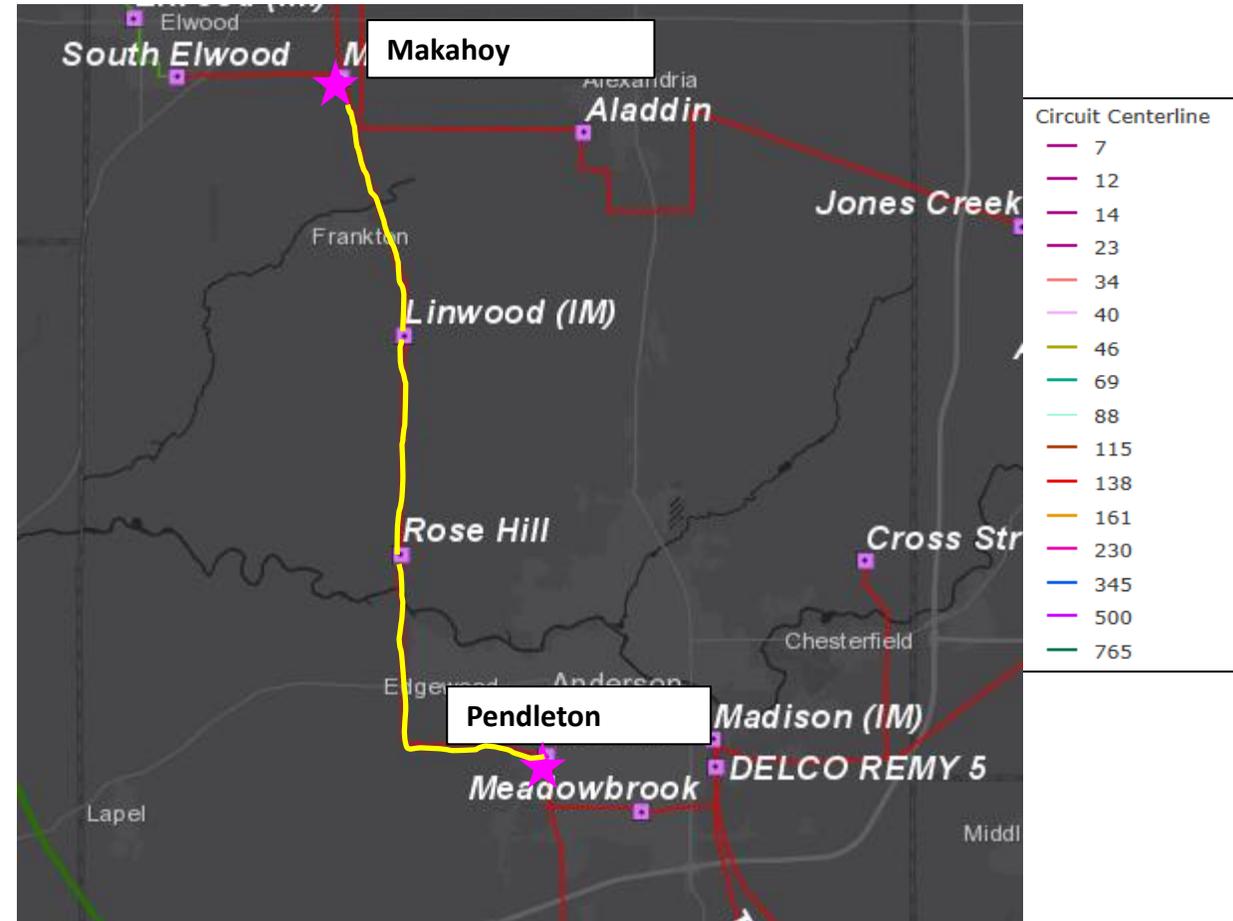
**Project Driver:** Equipment Material Condition, Performance and Risk

**Specific Assumption Reference:** AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions slide 13)

**Problem Statement:**

**Pendleton - Makahoy 138 kV (Vintage 1954)**

- Length of Line: 14.93 miles
- Total structure count: 106 with 92 dating back to original installation.
- Line Construction Type: Predominantly wood poles
  - Wood cross arm
  - Horizontal insulators: Porcelain
  - Grounding method utilizes butt wraps on every other structure, providing reduced lightning protection for the line.
- Conductor Type: 556,500 CM ACSR 26/7 Dove
- Condition Summary
  - Number of open conditions: 21 structure open conditions with 8 structure related open conditions.
    - Open conditions include cross arm or pole with rot top, shield wire broken strands, broken ground lead wire and burnt or broken insulators.
    - Based on the aerial drone and ground crew assessment done on 56 structures, the following was noted.
      - The cross arms have moderate to advanced wood decay.
      - 40% of structures assessed at ground line have heart rot decay.
      - Structure hardware with moderate corrosion.
    - Structures fail NESC Grade B, AEP structural strength requirements, and ASCE structural strength requirements



**Need Number:** AEP-2021-IM036

**Process Stage:** Need Meeting 11/19/2021

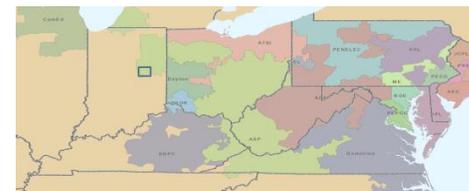
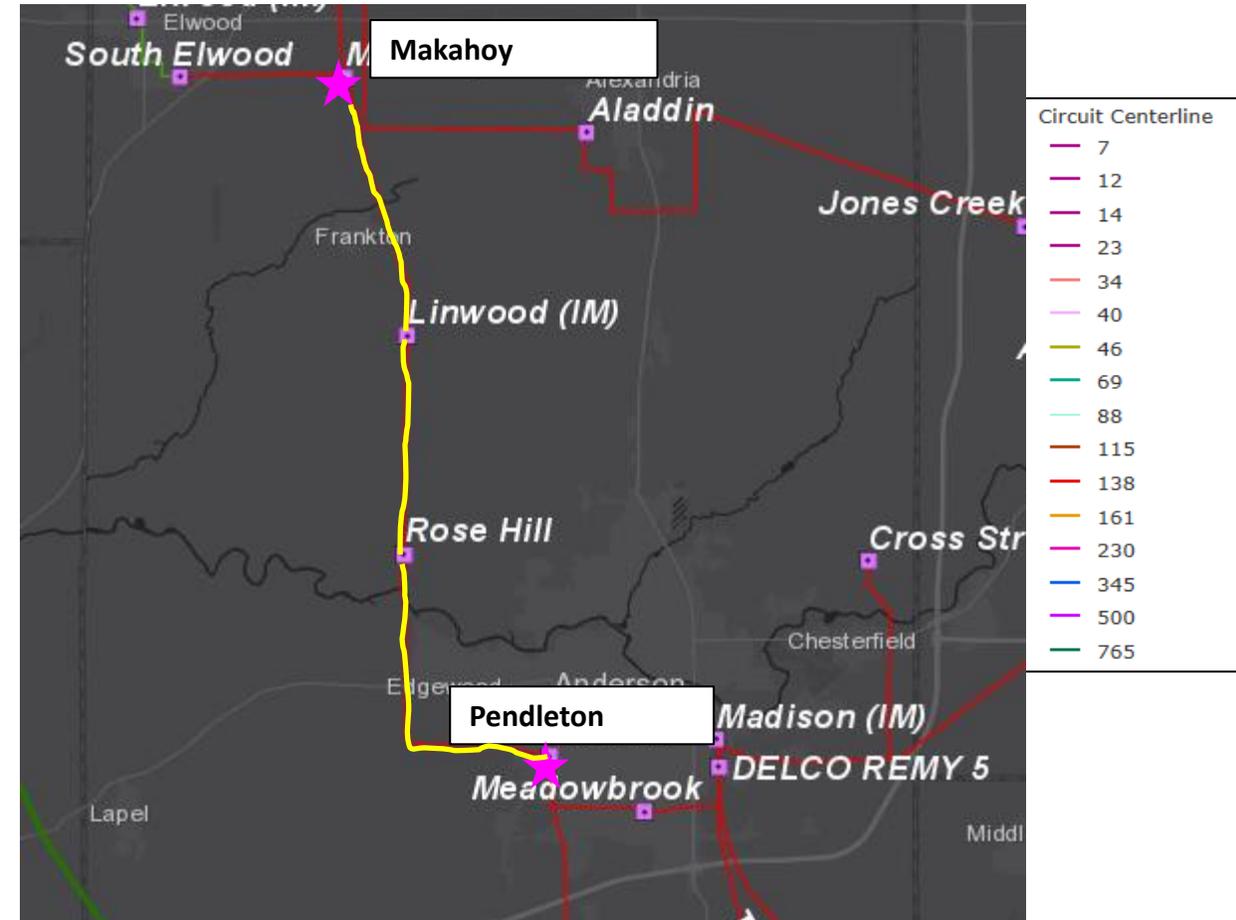
**Project Driver:** Equipment Material Condition, Performance and Risk

**Specific Assumption Reference:** AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions slide 13)

**Problem Statement:**

**Pendleton 138/34.5 kV transformer #2**

- Install date: 1967
- Oil concerns:
  - Dielectric strength breakdown: The elevated moisture levels and decreased interfacial tension indicate the dielectric strength of the insulation system are in poor condition, which impairs the unit's ability to withstand electrical faults.
  - No oil containment
  - Oil / Gasket leaks



# AEP Transmission Zone M-3 Process Richland, Ohio

**Need Number:** AEP-2021-OH021

**Process Stage:** Need Meeting 11/19/2021

**Project Driver:**

Equipment Material/Condition/Performance/Risk

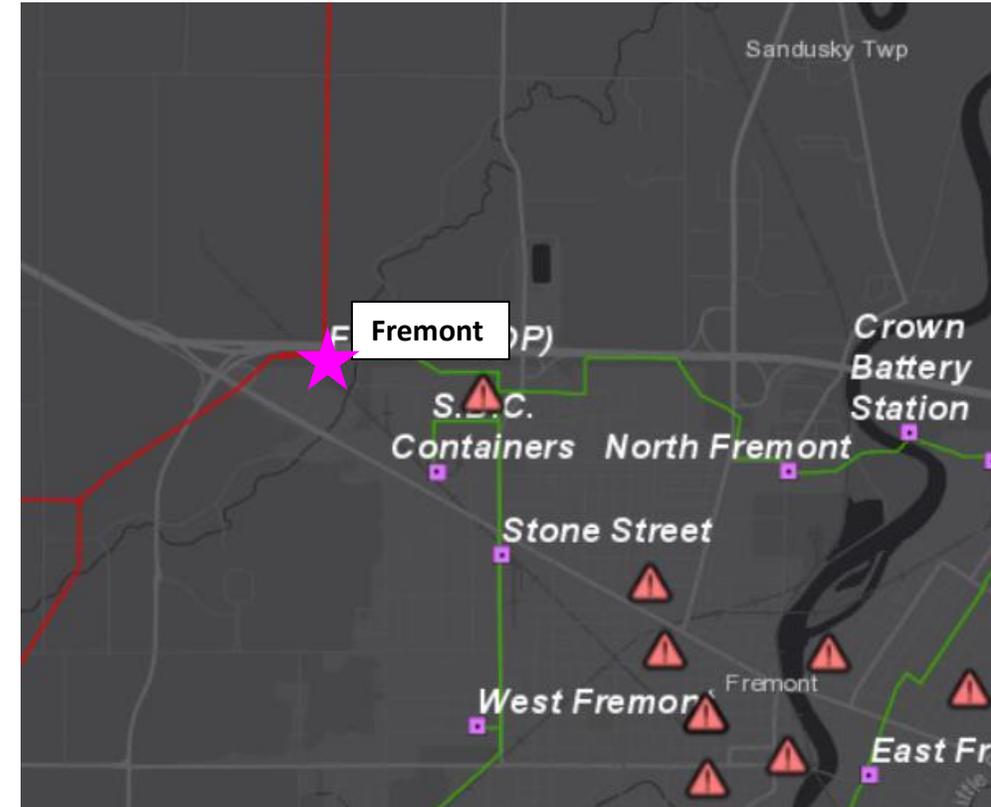
**Specific Assumption Reference:**

AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 11)

**Problem Statement:**

Circuit Breaker: C

- Breaker Age:
  - 1988
- Interrupting Medium: (Oil)
- Fault Operations:
  - Number of Fault Operations: 43
  - Manufacturer recommended Number of Operations: 10
- Additional Breaker Information:
  - These breakers are oil filled without oil containment; oil filled breakers have much more maintenance required due to oil handling than their modern, SF6
  - The manufacturer provides no support for this family of circuit breakers and spare parts are increasingly more difficult to obtain. This model family has experienced major malfunctions associated with their hydraulic mechanism, including low-pressure readings, hydraulic leaks, pump lockouts, and failure to shut off. These mechanism malfunctions have led to several failures to close and other types of mis-operations across the AEP system.

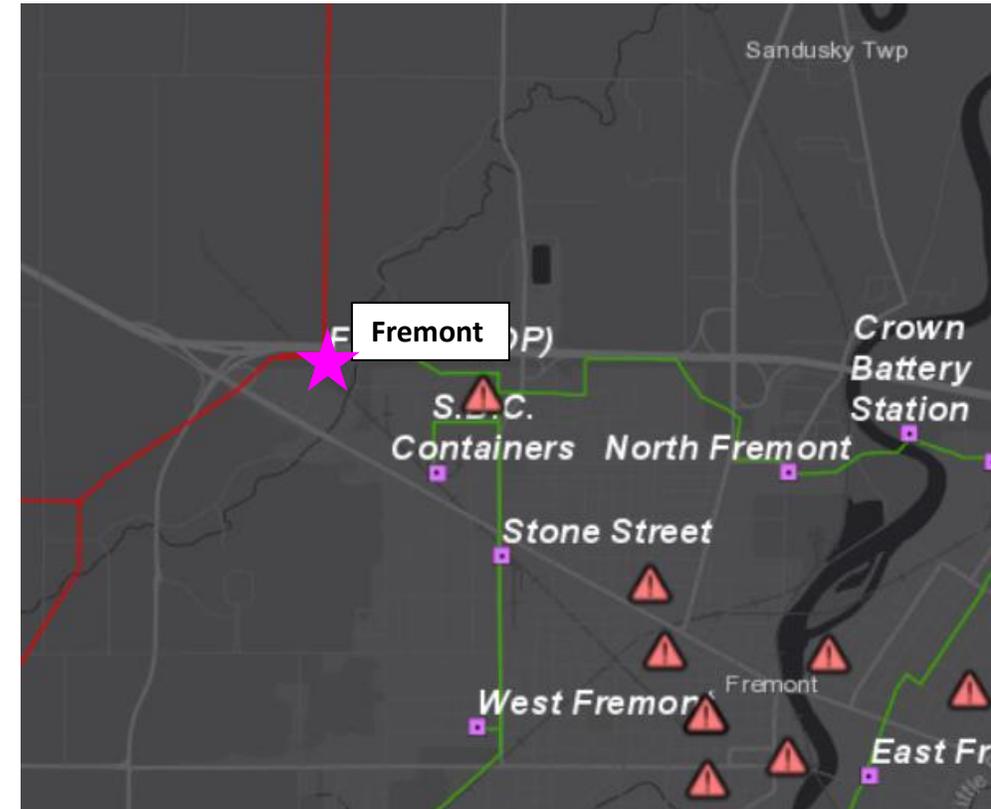


# AEP Transmission Zone M-3 Process Richland, Ohio

## Problem Statement Continued:

### Relays:

- 52 of the 60 relays (87% of all station relays) are in need of replacement. 42 of these are of the electromechanical type and 1 of the static type which have significant limitations with regards to spare part availability and fault data collection and retention. In addition, these relays lack of vendor support. There are 8 microprocessor based relays commissioned between 2004 and 2011 and one DPU unit with firmware that is no longer supported.



**Need Number:** AEP-2021-OH057

**Process Stage:** Need Meeting 11/19/2021

**Project Driver:**

Equipment Material/Condition/Performance/Risk

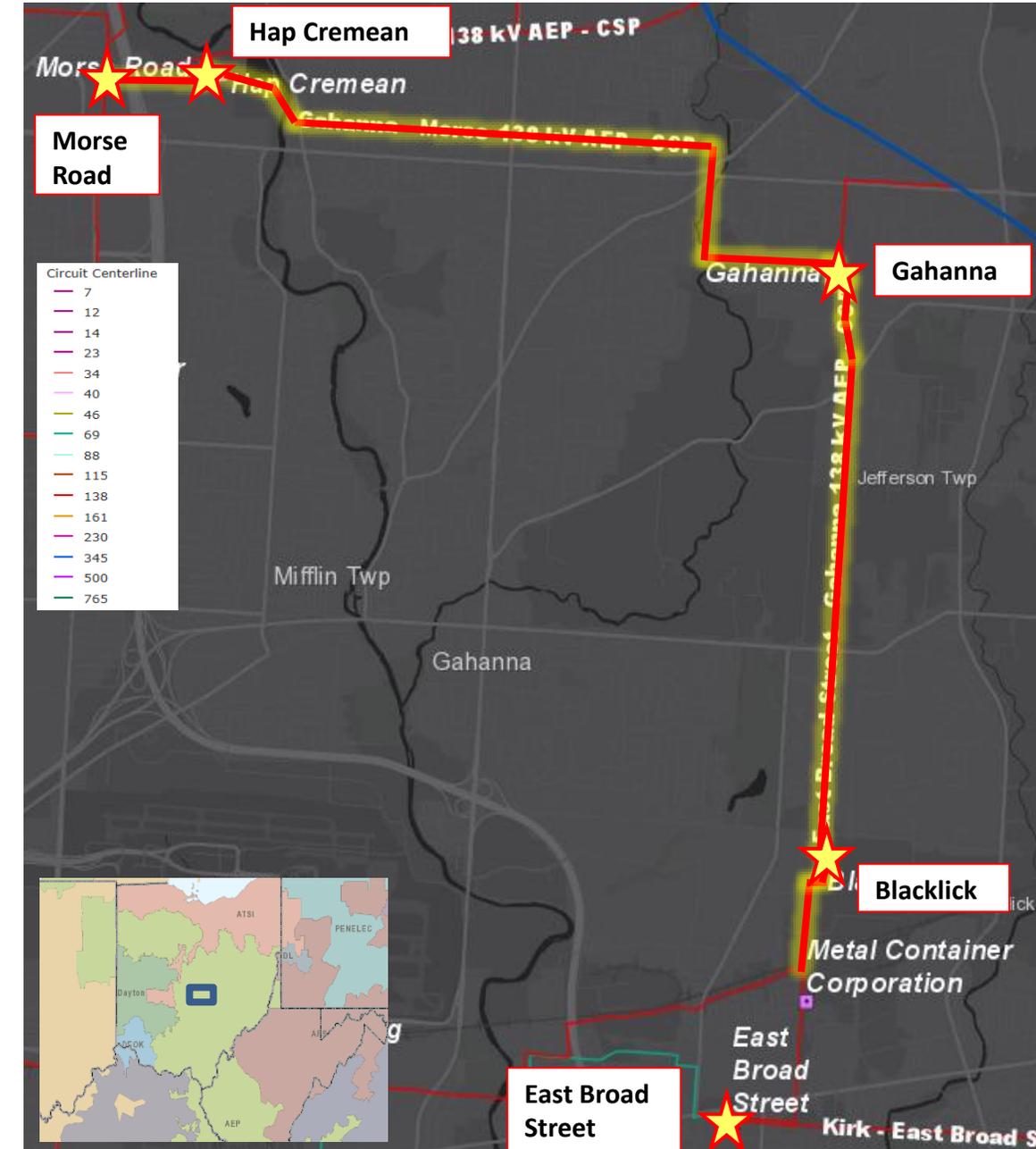
**Specific Assumption Reference:**

AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 13)

**Problem Statement:**

Gahanna-Hap Cremean (4.39 miles) & Hap Cremean-Morse Road ( 0.65 miles) 138 kV Single Circuit Line:

- The circuit conductor is 336 kCM ACSR 30/7 (1956)
- The structures are wood poles with vertical insulators (1950s).
- Currently, 36 structures have at least one open condition (36 out of 49), consisting of bowed crossarms, rot heart, rot top, rot pocket, woodpecker holes, insect damage and damaged poles
- The structures on the line do not meet the 2017 NESC Grade B loading criteria, AEP structural strength requirements, and the current ASCE structural strength requirements.
- The insulators on the line do not meet current AEP standards for CIFO and minimum leakage distance requirements.
- The grounding is inadequate for current AEP Standards. The shield angle on a typical tangent structure is inadequate for AEP current shield angle requirements.



**Need Number:** AEP-2021-OH057

**Process Stage:** Need Meeting 11/19/2021

**Project Driver:**

Equipment Material/Condition/Performance/Risk

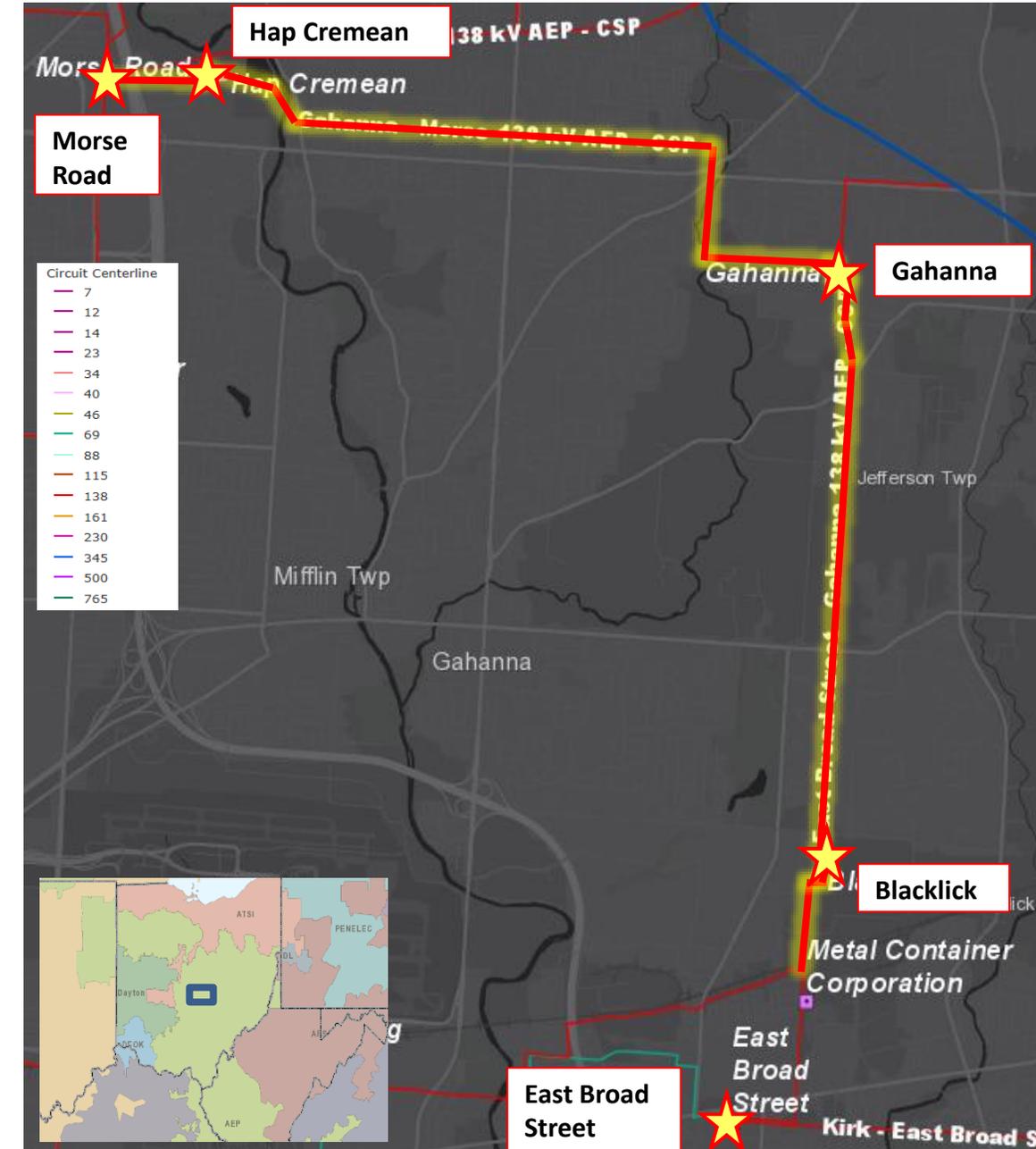
**Specific Assumption Reference:**

AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 13)

**Problem Statement Continued:**

Gahanna-Blacklick (3.32 miles) & Blacklick-East Broad Street ( 0.71 miles) 138 kV Single Circuit Line :

- The circuit conductor is primarily 336 kCM ACSR 30/7 (1952) with a short section of 636 kCM ACSR 26/7 (1952)
- The structures are wood poles with vertical insulators (1950s).
- Currently, there are 11 structures with at least one open condition ( 11 out of 37), consisting of rot top on poles and a crossarm and rot heart of a pole.
- The structures on the line do not meet the 2017 NESC Grade B loading criteria, AEP structural strength requirements, and the current ASCE structural strength requirements.
- The insulators on the line do not meet current AEP standards for CIFO and minimum leakage distance requirements.
- The grounding is inadequate for current AEP Standards. The shield angle on a typical tangent structure is inadequate for AEP current shield angle requirements.
- Line Historical Performance (2015-2020):
  - Blacklick - East Broad circuit, 2 momentary outages / 2 permanent outages.
  - Blacklick – Gahanna circuit, 3 momentary outages/ 1 permanent outage.



**Need Number:** AEP-2021-OH058

**Process Stage:** Need Meeting 11/19/2021

**Project Driver:**

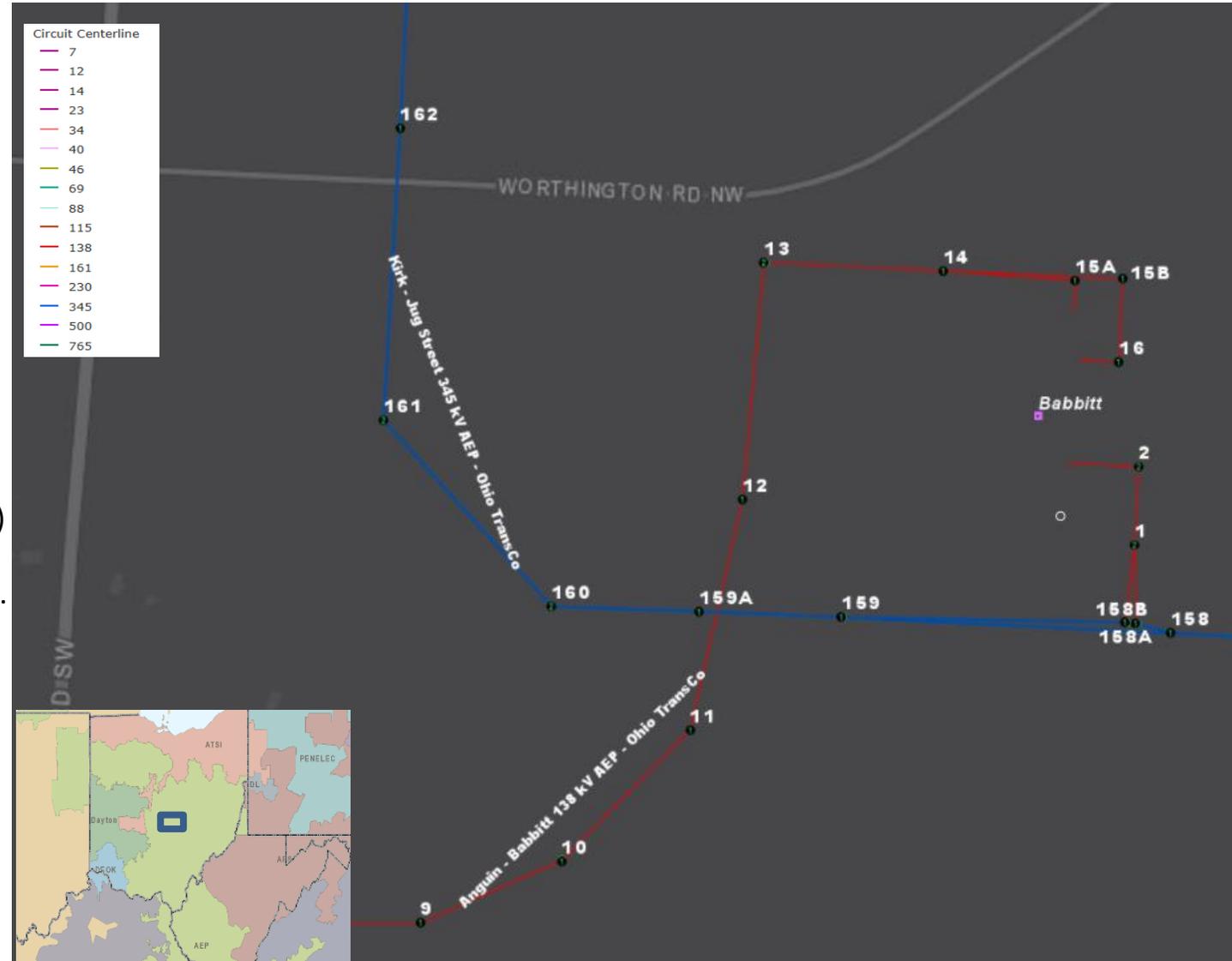
Customer Service

**Specific Assumption Reference:**

AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 13)

**Problem Statement:**

- AEP Ohio has requested a new 138 kV delivery point from Babbitt 138 kV station.
- Additional capacity is needed on the Distribution system (~ 50 MVA) to shift load from existing area circuits. Continued load growth and limited tie capability is an issue in the surrounding New Albany area.
- **Model:** 2026 RTEP



# AEP Transmission Zone M-3 Process Barnesville, Ohio

**Need Number:** AEP-2021-OH061

**Process Stage:** Need Meeting 11/19/2021

**Project Driver:**

Customer Service; Operational Flexibility and Efficiency

**Specific Assumption Reference:**

AEP Guidelines for Transmission Owner Identified Needs; AEP Connection Requirements (AEP Assumptions Slides 12-13)

**Problem Statement:**

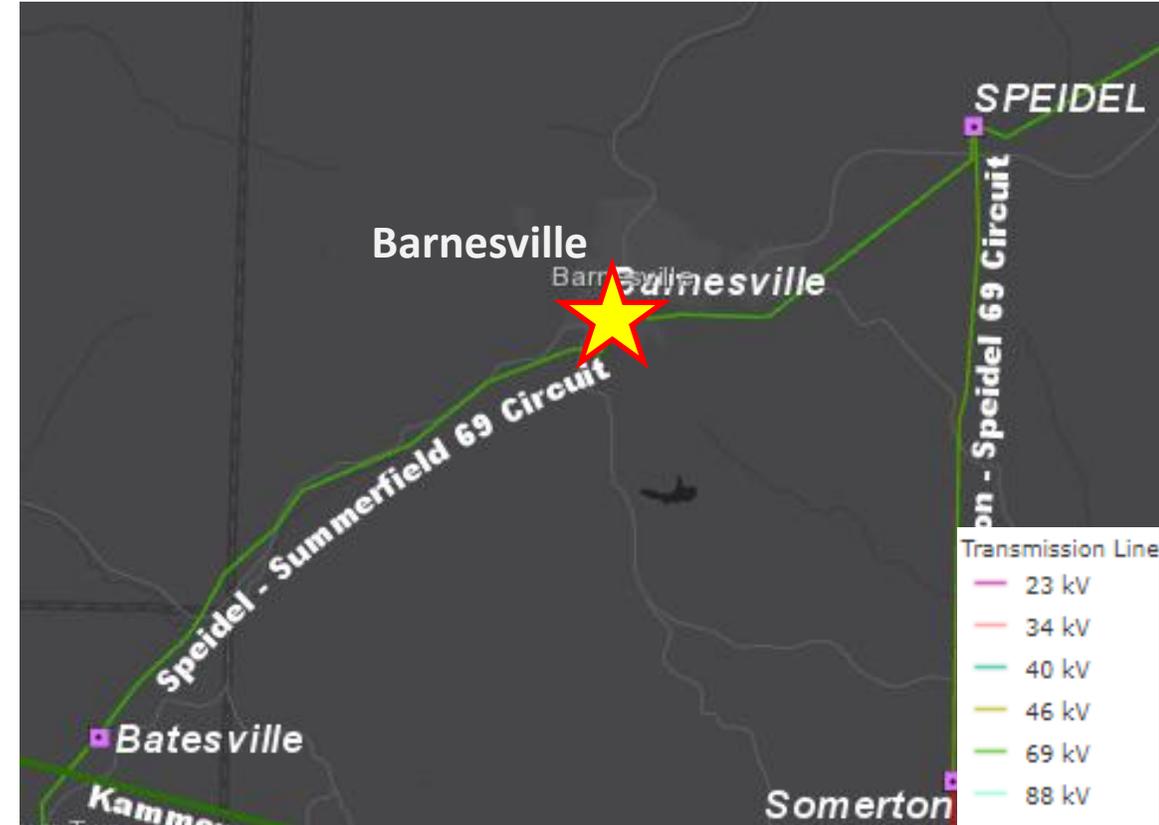
Customer Service:

AEP Ohio has requested a new load delivery point due to capacity loading limits at the Barnesville 69/12kV substation. The station is limited by its power transformer and secondary cables. The transformer was manufactured in 1968, has poor oil quality, and has bushing issues reported.

Operational Flexibility and Efficiency:

The station is served radially via a 0.4-mile 69kV tap. This T-line tap dates back to 1942, with original #1 copper conductor, and currently has 2 open conditions. Other projects in the area have proposed to rebuild the remainder of the 69 kV line in the area.

Barnesville has an obsolete MOAB/ground-switch for the transformer protection system. This requires remote-end breaker clearing many miles away, and drops another tapped AEP Ohio distribution station in the process (Batesville).



# 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:** AEP-2020-AP036

**Process Stage:** Solutions Meeting 11/19/2021

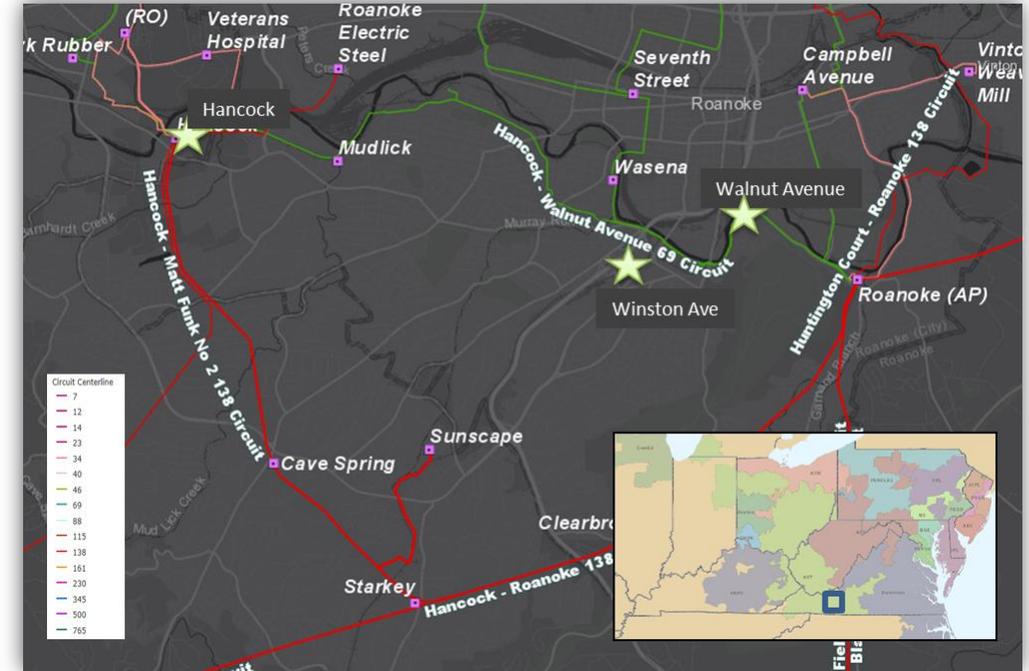
**Previously Presented:** Needs Meeting 7/17/2020

**Supplemental Project Driver:** Customer Service

**Specific Assumptions Reference:** AEP Connection Requirements for the AEP Transmission System (AEP Assumptions Slide 7)

**Problem Statement:**

- Distribution requested a new station (Winston Avenue) located just south of the Hancock-Walnut Avenue 69 kV circuit to serve load currently fed from Walnut Avenue Station, which is located in the flood way of the Roanoke River as determined by FEMA and the Army Corps of Engineers. There have been several instances in the last three years where prolonged periods of rain have resulted in water levels that reached the bottom of the breaker control cabinets in the station.
- Medical related load continues to grow in the area served by Walnut Avenue Station. The main feed for Roanoke Memorial Hospital (RMH) is the Walnut Avenue/South Roanoke 12 kV feeder. RMH has plans to construct a new 15 story (2 MVA) expansion at nearby Crystal Springs along with a renovation/relocation of their existing Cancer Center by April 2024. The load on the South Roanoke 12 kV feeder is projected to reach 8.9 MVA, or 69% of its 12.9 MVA capability by summer 2024. This load is primarily RMH and while the concern is not necessarily related to a projected overload, it is about having Roanoke’s largest hospital served by a main feed in the Roanoke River Floodway and its alternate feed (Wasena/Wiley 12kV) in the Roanoke River Floodplain.
- The Walnut Avenue/Maher Ave 12 kV feeder has seen and will continue to see medical related growth. Recent additions have been the Virginia Tech School of Medicine, Carilion Biomedical center for which the first of three planned expansions was announced for 6/2020. The load on the Maher Avenue 12 kV feeder is projected to reach 9.1 MVA, or 80% of its 11.4 MVA capability by summer 2024. While the concern is not necessarily related to a projected overload, cold load pickup is a concern following an outage when trying to restore power on a 12 kV feeder when its load exceeds 9.0 MVA.



**Need Number(s):** AEP-2020-AP036

**Process Stage:** Solutions Meeting 11/19/2021

**Phase 1**

**Proposed Solution:**

- Extend a 0.37 mile double circuit 69 kV line to the new station location by tapping the existing Hancock-Walnut Ave 69 kV Circuit using 556 ACSR 26/7 overhead conductor. **Estimated Cost: \$2.8M**
- Establish new 69 kV station (Winston Avenue) in a straight bus configuration with 2-69 kV circuit breakers, 69/12 kV, 25 MVA transformer with high-side circuit switcher and three 12 kV feeder breakers. **Estimated Cost: \$0 (Station cost is Distribution)**
- Update relay settings at Walnut Ave and Hancock stations. **Estimated Cost: \$0.03M**

**Projected In-Service:** 12/1/2023

**Project Status:** Scoping

**Phase 2**

**Proposed Solution:**

- At Winston Ave install a second 69/12 kV, 25 MVA transformer with high-side circuit switcher and 12 kV feeders. **Estimated Cost: \$0 (Station cost is Distribution)**
- At Roanoke install a second 138/12 kV Distribution transformer with high-side circuit switcher and 12 kV feeders. **Estimated Cost: \$2 M**
- Retire Distribution from Walnut Ave. Station. **Estimated Cost: \$0 (Station cost is Distribution)**

**Projected In-Service:** 12/1/2026

**Project Status:** Conceptual

**Total Estimated Transmission Cost: \$4.83 M**

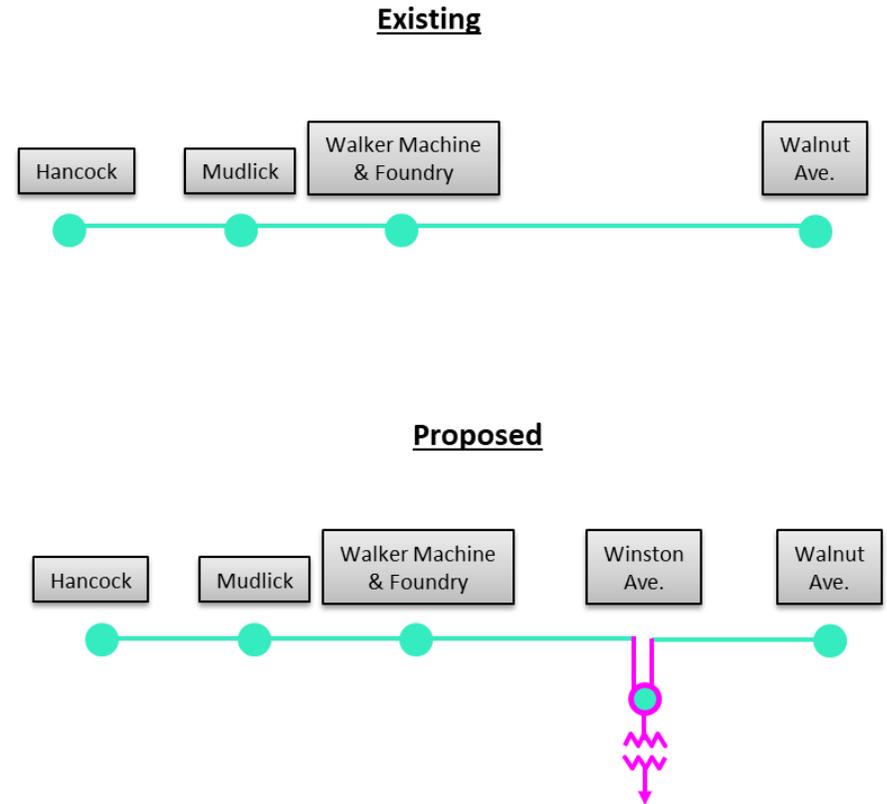
**Alternatives Considered:**

No other alternative was viable, as the location of Winston Ave. is outside of the floodplain and there are no other options for station sites in downtown Roanoke. Due to the existing station location in the floodplain, rebuilding the distribution on site is not viable.

**Ancillary Benefits:**

This project will be completed in 2 phases to transfer load away from Walnut Ave. which is located in a flood way while continuing to provide reliable service to sensitive customers currently served and future growth.

**AEP Transmission Zone M-3 Process  
Roanoke, VA Area**

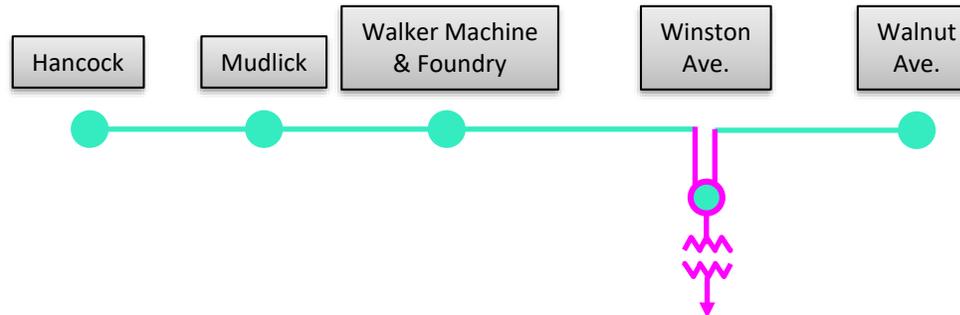


Legend	
500 kV	
345 kV	
138 kV	
69 kV	
34.5 kV	
23 kV	
New	

**Existing**



**Proposed**



Legend	
500 kV	
345 kV	
138 kV	
69 kV	
34.5 kV	
23 kV	
New	

# AEP Transmission Zone M-3 Process Hummel Creek – Marion Plant 34.5 kV line rebuild

**Need Number:** AEP-2021-IM025

**Process Stage:** Solution Meeting 11/19/2021

**Previously Presented:** Needs Meeting 07/16/2021

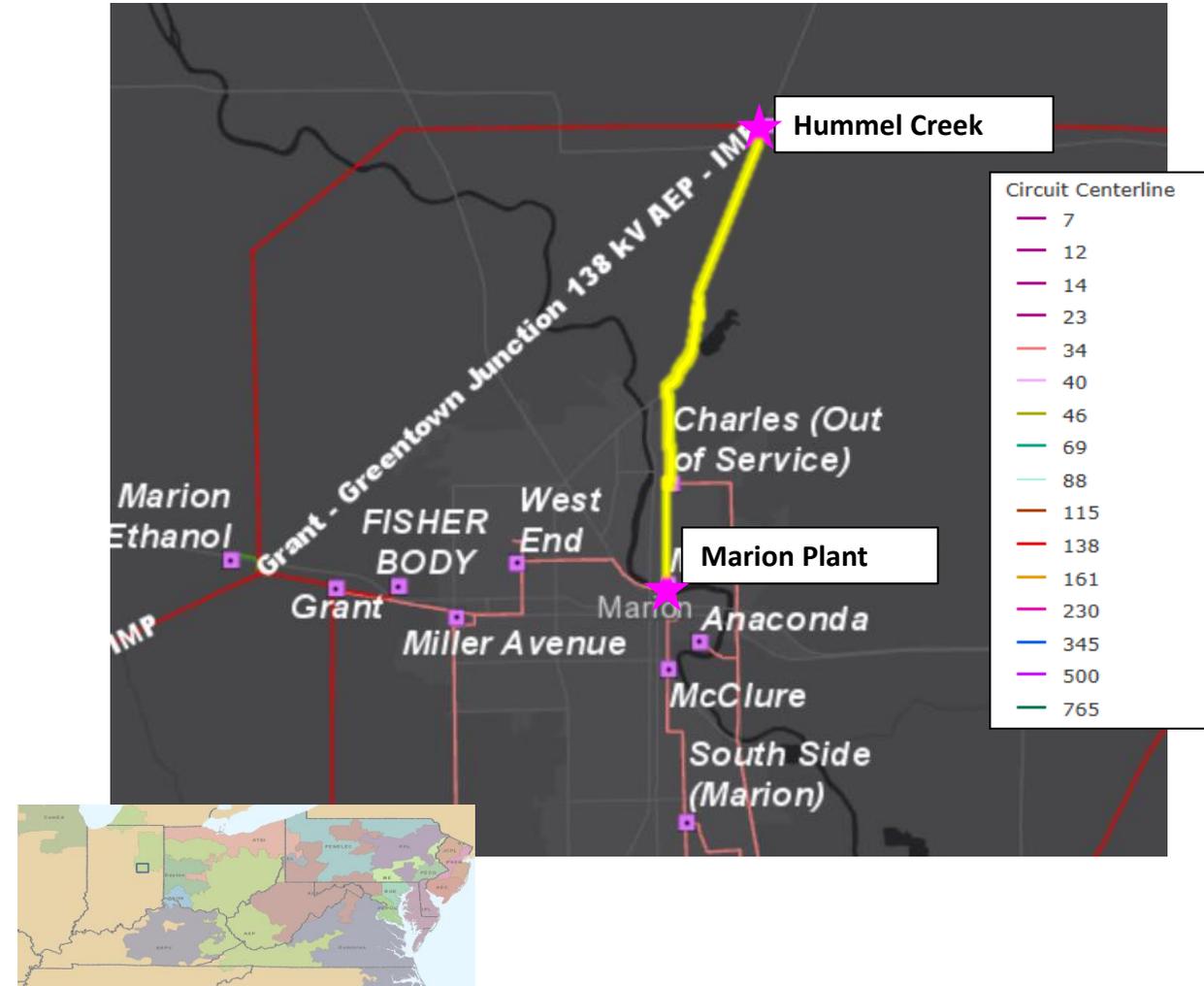
**Project Driver:** Equipment Material Condition, Performance and Risk

**Specific Assumption Reference:** AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions slide 13)

**Problem Statement:**

**Hummel Creek – Marion Plant 34.5 kV (Vintage 1967)**

- Length of Line: 4.47 miles
- Total structure count: 136 with 119 dating back to original installation.
- Original Line Construction Type: Wood monopole and two pole structures with cross arm construction.
  - Porcelain insulators
- Conductor Type: 556,500 CM ALUM/1350 19 Dahlia
- Condition Summary
  - Number of open conditions: 19 structure open conditions
    - Open conditions include knee/vee brace, shielding/grounding open conditions related to the ground lead wire with missing or stolen, hardware, broken insulators.
    - Based on the ground crew assessment most poles and arms assessed are in poor condition with a overall condition of the line moving towards increased maintenance cycles and less reliability.
  - Structures fail NESC Grade B, AEP Strength requirements, and ASCE structural strength standards
  - The grounding method utilizes butt wraps on every other structure, providing reduced lightning protection for the line.



**Need Number:** AEP-2021-IM025

**Process Stage:** Solution Meeting 11/19/2021

**Proposed Solution:**

Hummel Creek – Marion 34.5 kV: Rebuild ~4.5 miles of 34.5 kV line with the conductor size 556.5 ACSR 26/7 Dove to 69 kV standards. The following cost includes the line rebuild, line removal and ROW.

**Cost: \$11.3 M**

**Total Cost: \$11.3 M**

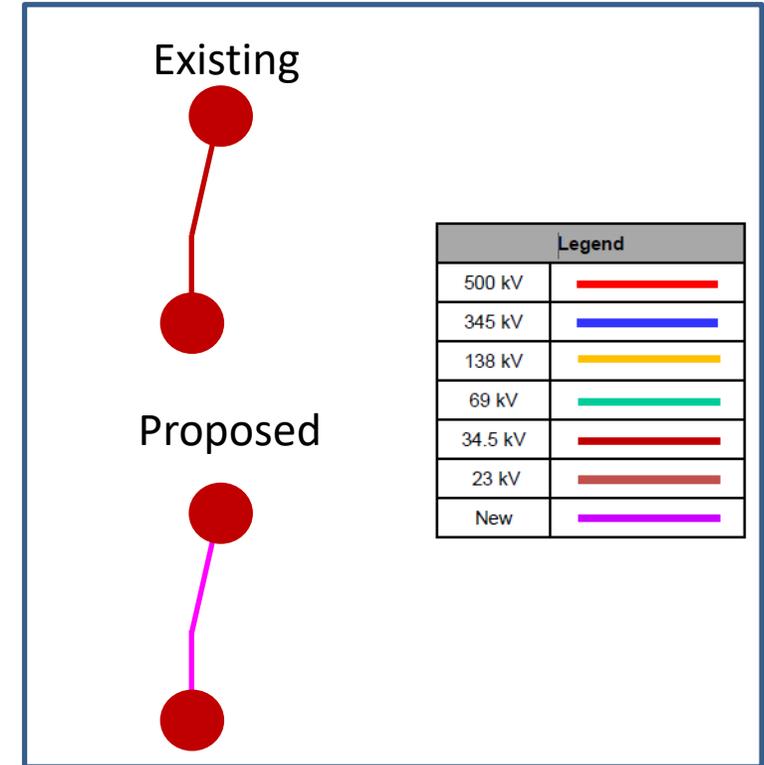
**Alternative considered:**

Retire and remove the Hummel Creek – Marion Plant 69 kV line (~4.48 miles). This would consequently require the rebuild of ~1.46 miles of the Grant – Marion Plant 69 kV line and the replacement of the Grant 138/69/34.5 kV transformer due to thermal violations for various N-1 outages around Deer Creek.

Further, this option was not selected as this exposes the Marion Plant load to a complete outage for a N-1-1 loss of the Deer Creek – Marion Plant 34.5 kV and the Grant – Marion Plant 34.5 kV circuits. The Marion Plant load consists of downtown Marion, courthouse, jail, city offices and hospital.

**Projected In-Service:** 10/15/2026

**Project Status:** Scoping



**Need Number:** AEP-2021-OH053

**Process Stage:** Solution Meeting 11/19/2021

**Previously Presented:** Need Meeting 10/15/2021

**Project Driver:**

Equipment Material/Condition/Performance/Risk

**Specific Assumption Reference:**

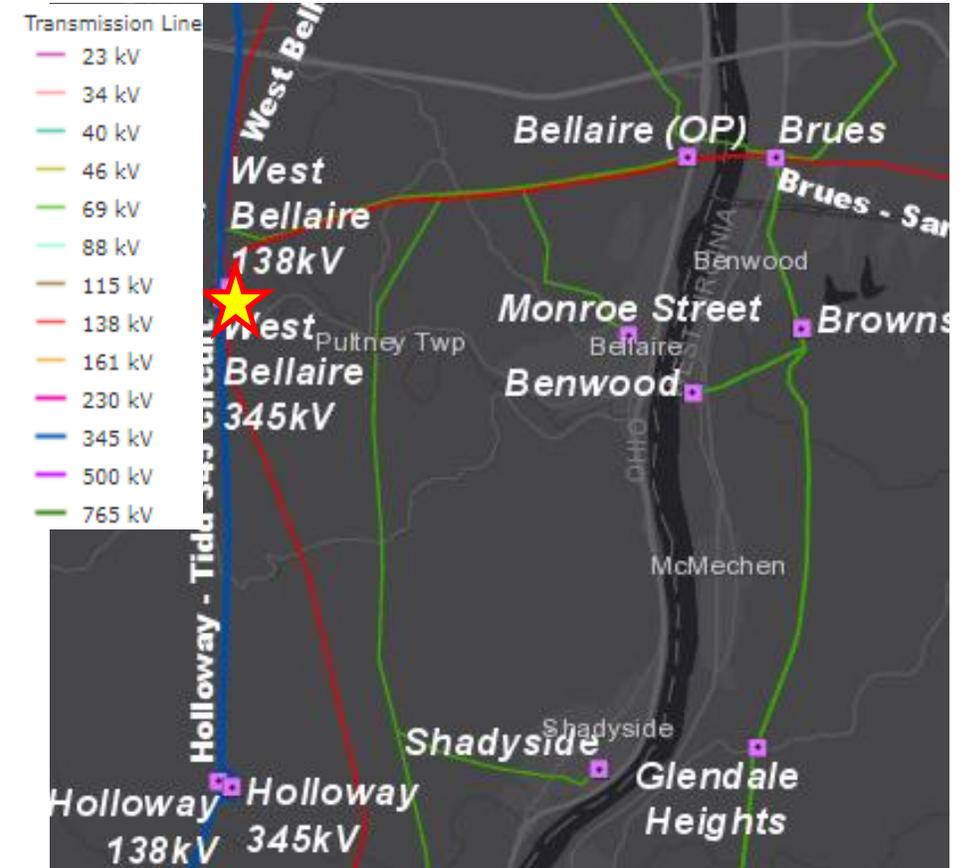
AEP Guidelines for Transmission Owner Identified Needs (AEP Assumptions Slide 13)

**Problem Statement:**

West Bellaire 138 – 69 kV Transformer #2:

Transformer #2 has failed due to a short circuit event verified by extremely high excitation currents and oil sampling results.

- Transformer Age: 1969, rewound in 1989
- Nameplate Rating: 115/128.8 MVA



## AEP Transmission Zone M-3 Process West Bellaire Transformer Replacement

**Need Number:** AEP-2021-OH053

**Process Stage:** Solution Meeting 11/19/2021

**Proposed Solution:** Replace the failed 138-69 kV transformer with a spare transformer (130 MVA nameplate, 2016 vintage). Cost includes removal costs, transport, and installation of the transformer. **Estimated Cost: \$0.5M**

**Alternatives Considered:** No other viable alternates were identified. This unit is the only 138-69 kV transformer at the station and can't be retired as it serves as the source for local 69kV network.

**Total Estimated Transmission Cost:** \$0.5M

**Projected In-Service:** 12/16/2021

**Project Status:** Engineering and Construction

Single transformer replacement. Bubble diagram not applicable.

# 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

11/8/2021 – V1 – Original version posted to pjm.com