

# Sub Regional RTEP Committee: Western DEOK 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:** DEOK-2021-012

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

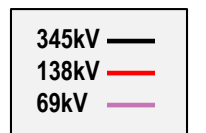
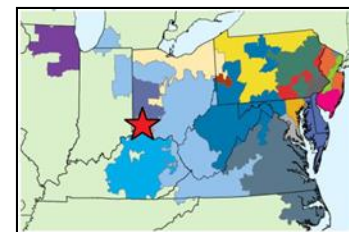
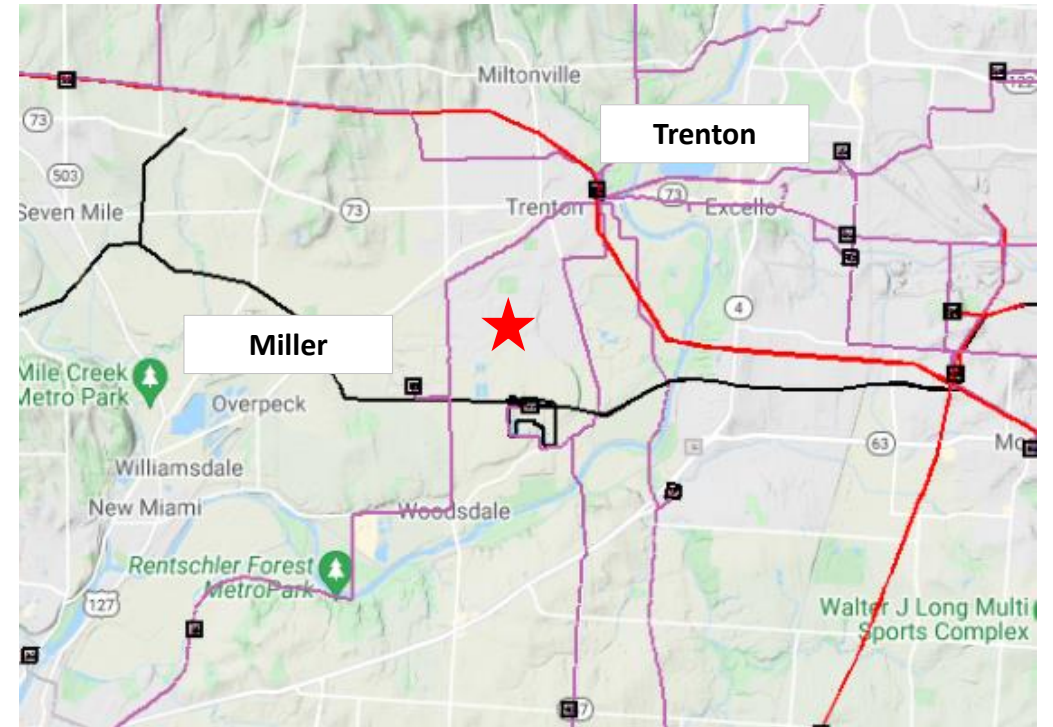
**Project Driver:** Customer Service

**Specific Assumption Reference:**

Duke Energy Ohio & Kentucky Local Planning Assumptions slide 9

**Problem Statement:**

Duke Energy Distribution has requested a new delivery point near Kennel Road in Butler County Ohio. An existing customer is relocating to a new site for expansion. 10 MVA is required by Q1 2024 with a total 16 MVA required by Q1 2025.



# 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:** DEOK-2021-010

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

**Previously Presented:** Needs Meeting 09-17-2021

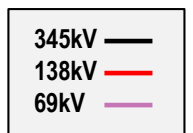
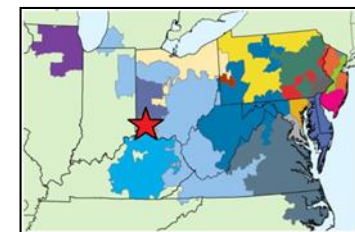
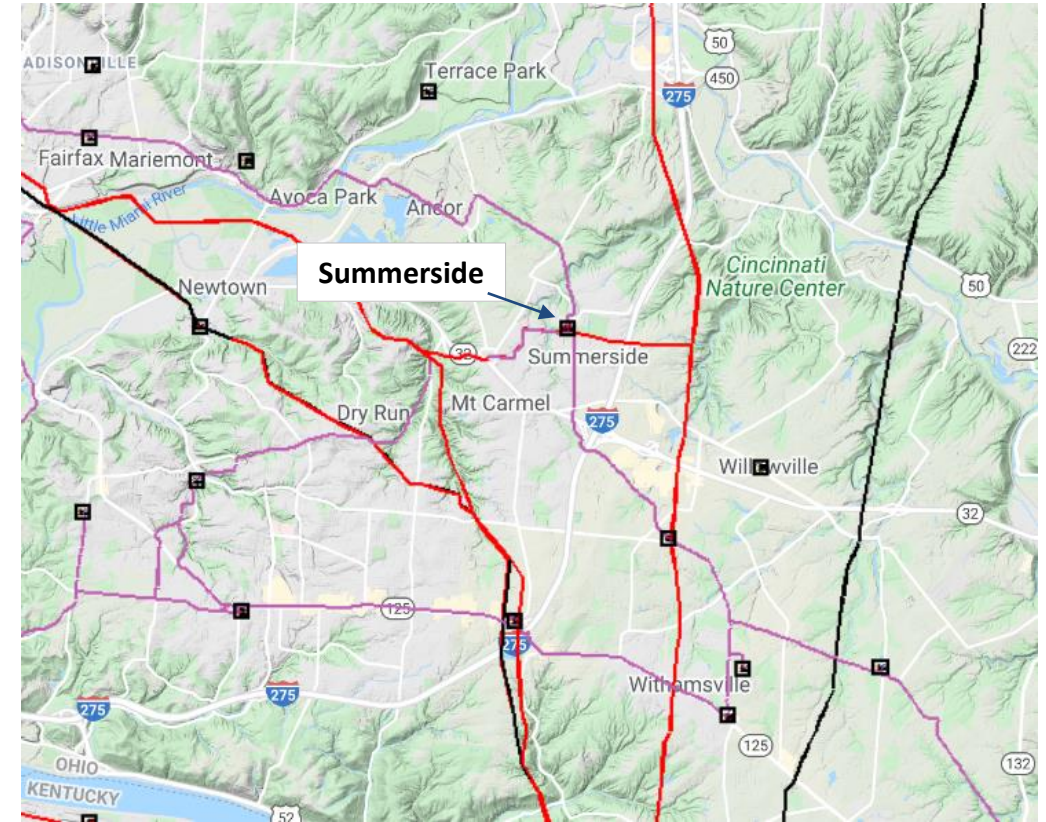
**Project Driver:** Equipment Condition, Performance and Risk

**Specific Assumption Reference:**

Duke Energy Ohio & Kentucky Local Planning Assumptions slides 5 & 6

**Problem Statement:**

The 69 kV section of Summerside substation is nearly 60 years old, utilizes cap and pin insulators, has buses constructed of strain bus and an obsolete fault bus protection system. The capacitor on this bus is fuse connected, over 30 years old and at the end of its useful life. 69/34 kV Transformer 4 is 58 years old and showing signs of arcing in oil and has an old LTC design that is a high maintenance item.



**Need Number:** DEOK-2021-010

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

**Previously Presented:** Needs Meeting 09-17-2021

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

**Specific Assumption Reference:**

Duke Energy Ohio & Kentucky Local Planning Assumptions slides 5 & 6

**Proposed Solution:**

Remove existing structures, bus work, the capacitor, transformer and foundations. Expand and rebuild the 69 kV section of Summerside. Install new foundations, 2 new box structures and bus work. Reuse the existing circuit breakers and install a new zero-crossing circuit breaker connecting a new 43.2 MVAR capacitor. Install a new 69/34 kV 22.4 MVA transformer. Install a control house for relaying and communications equipment.

**Alternatives:** none

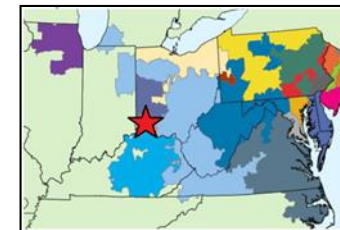
**Transmission Cost Estimate:** \$10.3M

**Proposed In-Service Date:** 12-31-2023

**Project Status:** Scoping

**Model:** 2021 RTEP

**Bubble Diagram Not Applicable  
Station Modifications Only**





**Need Number:** DEOK-2021-011

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

**Previously Presented:** Needs Meeting 09-17-2021

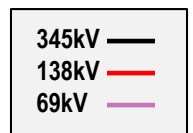
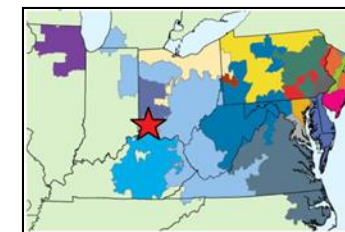
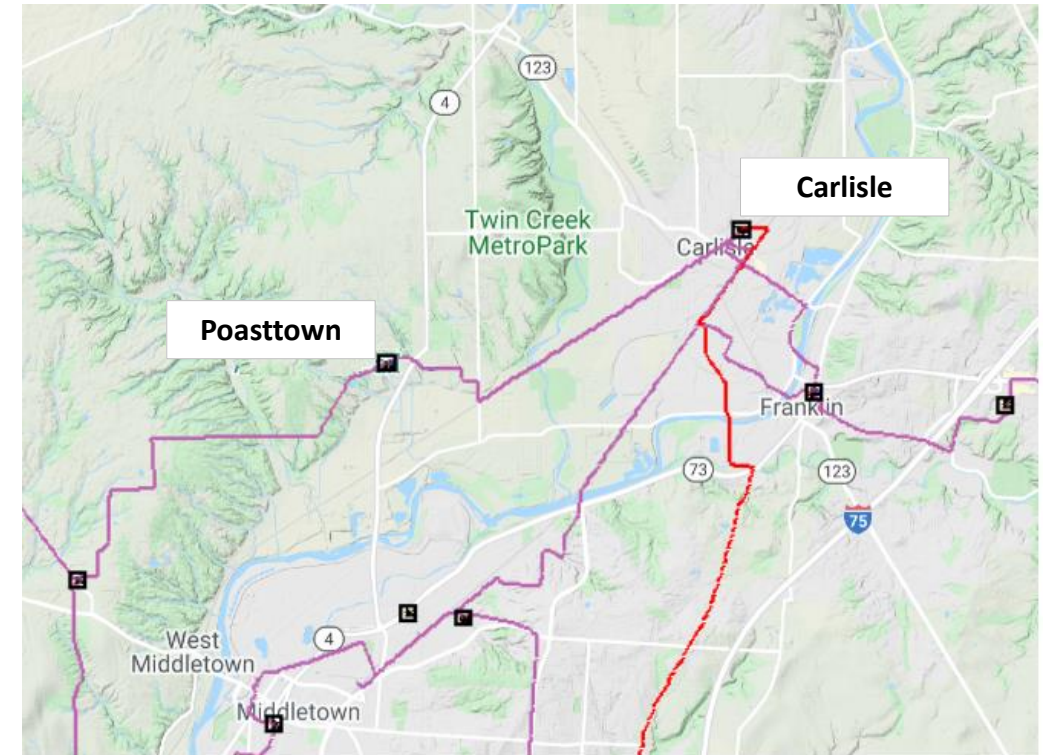
**Project Driver:** Equipment Condition, Performance and Risk

**Specific Assumption Reference:**

Duke Energy Ohio & Kentucky Local Planning Assumptions slides 5 & 6

**Problem Statement:**

The six mile long 69 kV feeder from Carlisle to Poasttown serves one wholesale and 8,165 residential customers. It is an average 70 years old and constructed with wooden crossarms on 89 single wood poles. The structures have an 18% rejection rate. In the past five years there have been 11 sustained and 7 momentary outages averaging 94,972 CMI/outage.





# DEOK Transmission Zone M-3 Process Carlisle-Poasttown

**Need Number:** DEOK-2021-011

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

**Previously Presented:** Needs Meeting 09-17-2021

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

**Specific Assumption Reference:**

Duke Energy Ohio & Kentucky Local Planning Assumptions slides 5 & 6

**Proposed Solution:**

Rebuild the section of feeder between Carlisle and Poasttown with steel poles, new hardware and conductor. Remove two switches and a tap to an industrial customer. The capacity of the line will increase from 77 MVA to 93 MVA.

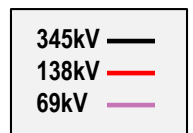
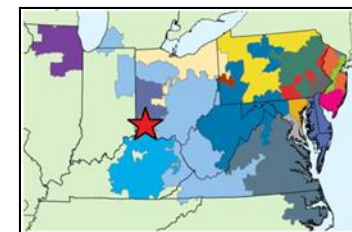
**Alternatives:** none

**Transmission Cost Estimate:** \$15.1M

**Proposed In-Service Date:** 12-31-2024

**Project Status:** Scoping

**Model:** 2021 RTEP





# 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

11/17/2021 – V32 – Slide #3 and #8, corrected typos