

# Subregional RTEP Committee - Western DEOK Supplemental Projects

March 15, 2024

# 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



# DEOK Transmission Zone M-3 Process Turfway

**Need Number:** DEOK-2024-004

**Process Stage:** Needs Meeting 03/15/2024

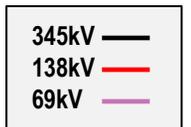
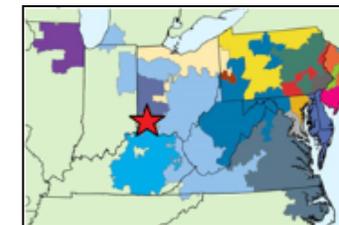
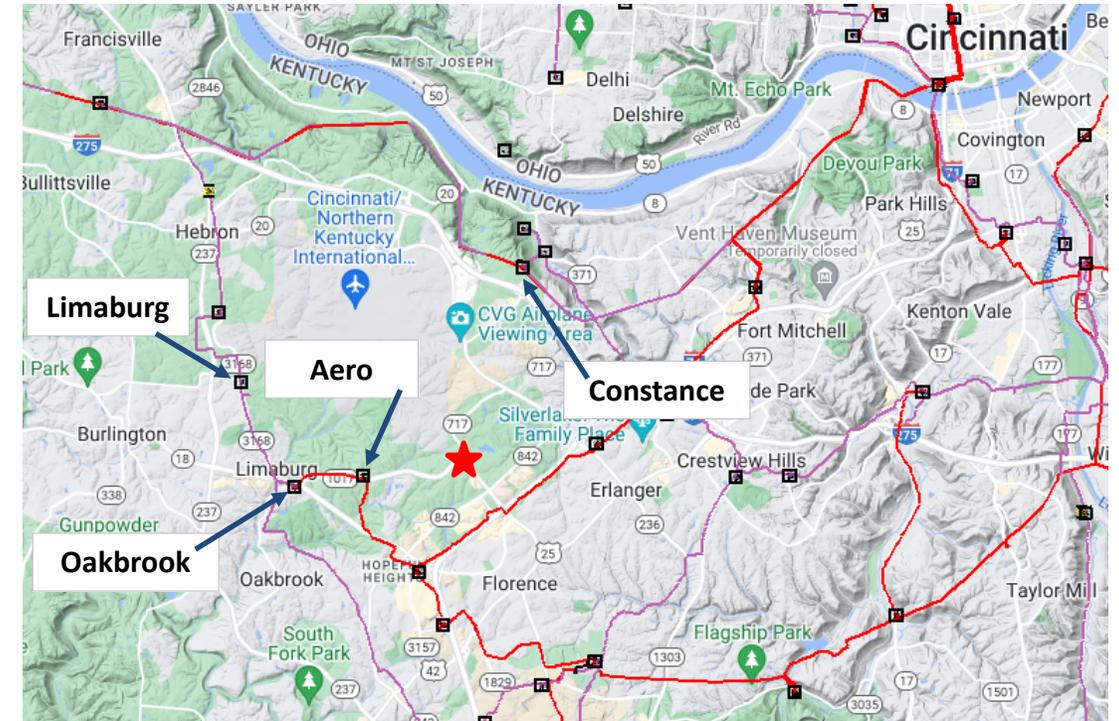
**Project Driver:** Customer Service

**Specific Assumption Reference:**

Duke Energy Ohio & Kentucky Local Planning Assumptions slide 6

**Problem Statement:**

Duke Energy Distribution has asked for a new delivery point near Turfway Road in the Florence, Kentucky area. The distribution system in this area is heavily loaded with a large commercial and industrial customer presence. Feeders at nearby substations Limaburg, Oakbrook, Aero and Constance are expected to see a 30% load increase by 2025 and some will exceed their capacity by 2028.



# 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-2022-006

**Process Stage:** Solutions Meeting 03/15/2024

**Previously Presented:** Needs Meeting 06/15/2022

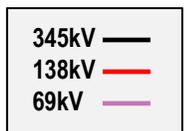
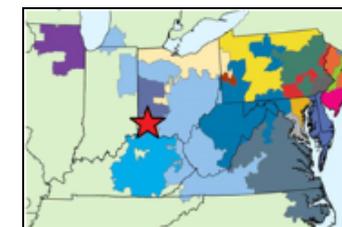
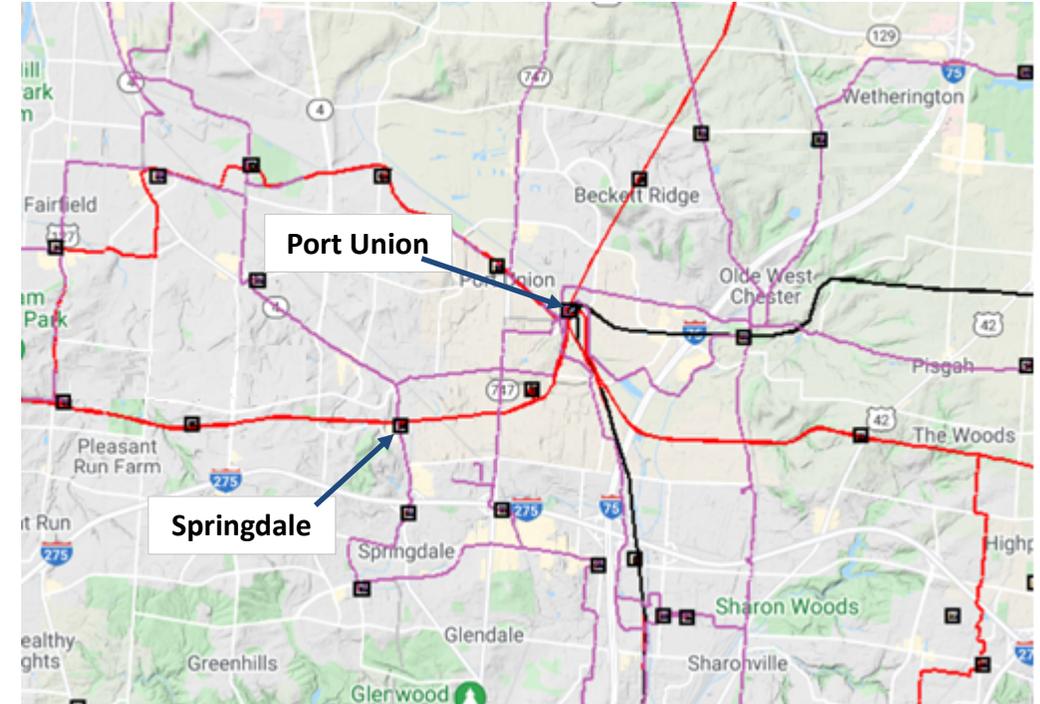
**Project Driver:** Equipment Condition, Performance and Risk, Operational Flexibility and Efficiency

**Specific Assumption Reference:**

Duke Energy Ohio & Kentucky Local Planning Assumptions slides 7, 8 and 9

**Problem Statement:**

The 69 kV section of Port Union is 52 years old. It is built with cap and pin insulators which are known to fail. Structures are showing signs of deterioration. The older design fails to meet current minimum approach distance standards. Each of the two buses has eight breakers in a straight bus configuration. This limits operational switching affecting planned and unplanned outages.





**Need Number:** DEOK-2022-006

**Process Stage:** Solutions Meeting 03/15/2024

**Previously Presented:** Needs Meeting 06/15/2022

**Project Driver:** Equipment Condition, Performance and Risk, Operational Flexibility and Efficiency

**Specific Assumption Reference:**

Duke Energy Ohio & Kentucky Local Planning Assumptions slides 7, 8 and 9

**Potential Solution:**

Rebuild the 69 kV section of Port Union, expanding the substation to allow adequate room for minimum approach distances. Add tie breakers to split each of the buses into two sections. Redistribute the feeders amongst all four bus sections to increase operational flexibility.

**Alternatives:** none

**Ancillary Benefits:** Adding the tie breakers and redistributing the feeders increases reliability due to more elements remaining in service for planned and unplanned outages.

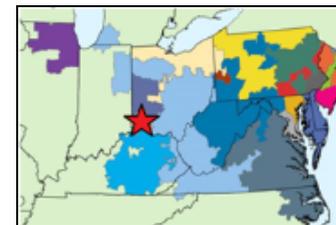
**Estimated Transmission Cost:** \$37,218,235

**Proposed In-Service Date:** 05/30/2028

**Project Status:** Scoping

**Model:** 2023 RTEP

**Bubble Diagram Not Applicable  
Station Modifications Only**



# 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

3/5/2024 – V1 – Original version posted to pjm.com