

# Transmission Expansion Advisory Committee DEOK Supplemental Projects

May 15, 2026

# 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-2026-002

**Process Stage:** Solutions Meeting 05/15/2026

**Previously Presented:** Needs Meeting 04/15/2026

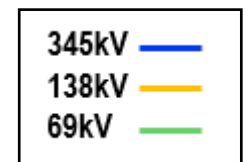
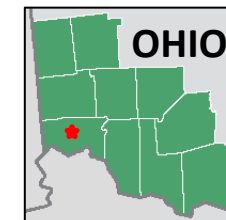
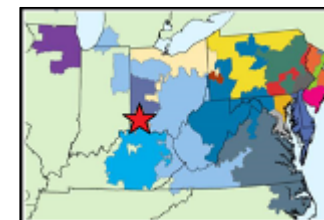
**Project Drivers:** Equipment Condition, Performance and Risk; Operational Flexibility and Efficiency

**Specific Assumption References:**

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

**Problem Statement:**

The 138 kV Mt. Healthy substation is a 53-year-old T-D manual switching station located on an approximately 7.9-mile 138 kV circuit between Mapleknoll and Finneytown substations. Mt. Healthy substation serves 9,935 customers via two 138/13.2 kV transformer banks. Due to being a manual switching station with no ATO scheme protection, a line fault on the Mapleknoll – Mt. Healthy or Mt. Healthy – Finneytown circuits will result in an outage for all customers served by Mt. Healthy substation. Additionally, several devices on the substation are approaching the end of their useful life and are due to be replaced, including electromechanical or solid-state relays and RTUs.



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**Process Stage:** Solutions Meeting 05/15/2026

**Proposed Solution:**

**Mt. Healthy Substation:** Replace necessary existing foundations, structures and devices to accommodate installation of a new four-position ring bus configuration. This includes the installation of: four 138 kV, 2000 A, 40 kA circuit breakers; two 138 kV, 2000 A wave traps; eight 138 kV CCVT's; six 138 kV lightning arresters; two 138 kV 2000 A motor operated line disconnect switches; and six 138 kV 2000 A breaker disconnect switches.

**Estimated Transmission Cost:** \$6.5M

**Finneytown Substation:** Install two 138 kV CCVT's, two relays, and necessary conduits to create ATO scheme on Finneytown – Mt. Healthy and Finneytown – Terminal circuits.

**Estimated Transmission Cost:** \$1.05M

**Mapleknoll Substation:** Install two 138 kV CCVT's, two relays, and necessary conduits to create ATO scheme on Mapleknoll – Mt. Healthy and Mapleknoll – Willey circuits.

**Estimated Transmission Cost:** \$1.05M

**Alternatives Considered:** N/A

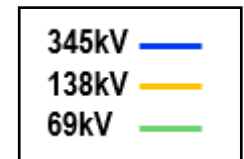
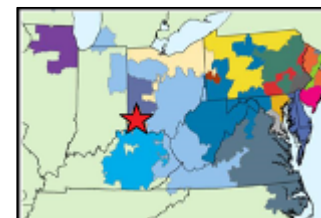
**Total Estimated Transmission Cost:** \$8.6M

**Proposed In-Service Date:** 05/07/2029

**Project Status:** Scoping

**Model:** 2025 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

05/08/2026 – V1 – Original version posted to pjm.com