

Subregional RTEP Committee - Western DEOK Supplemental Projects

October 16, 2026

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-2026-005

Process Stage: Needs Meeting 10/16/2026

Project Drivers: Customer Service, Operational Flexibility and Efficiency

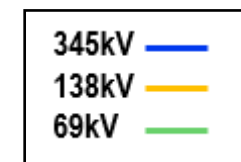
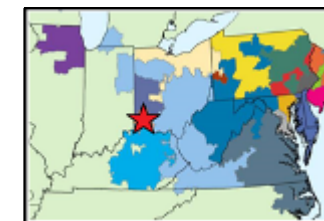
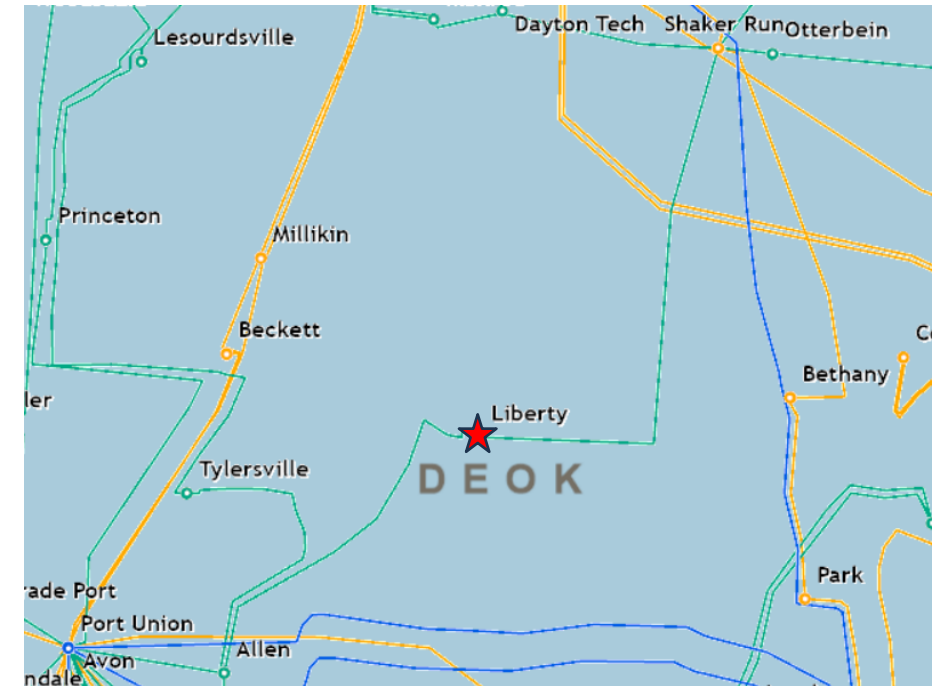
Specific Assumption Reference:

Duke Energy Ohio & Kentucky Local Planning Assumptions slides 6, 9

Problem Statement:

Liberty 69 kV substation is a straight bus distribution substation serving 3,137 customers, located on a 14-mile circuit connecting Allen and Shaker Run substations. Distribution transformers TB1 and TB2 are about 80% and about 90% loaded, respectively. These transformers are expected to reach 100% of normal transformer rating by 2028, and distribution plans to add a third transformer TB3 to accommodate the load growth.

Additional distribution customers will be transferred to service from this substation to take advantage of the new transformer. Substation load is expected to continue to grow due to new housing developments as well as a local hospital planning to expand load demands. As a result of this load growth, Duke Energy finds the current substation configuration lacking the necessary protections to provide reliable service to distribution customers.





DEOK Transmission Zone M-3 Process US_PO_SH 69 kV Substation Retirement

Need Number: DEOK-2026-007

Process Stage: Needs Meeting 10/16/2026

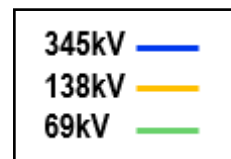
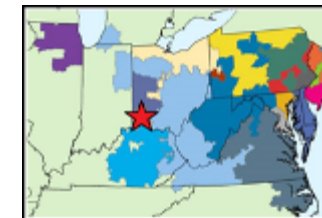
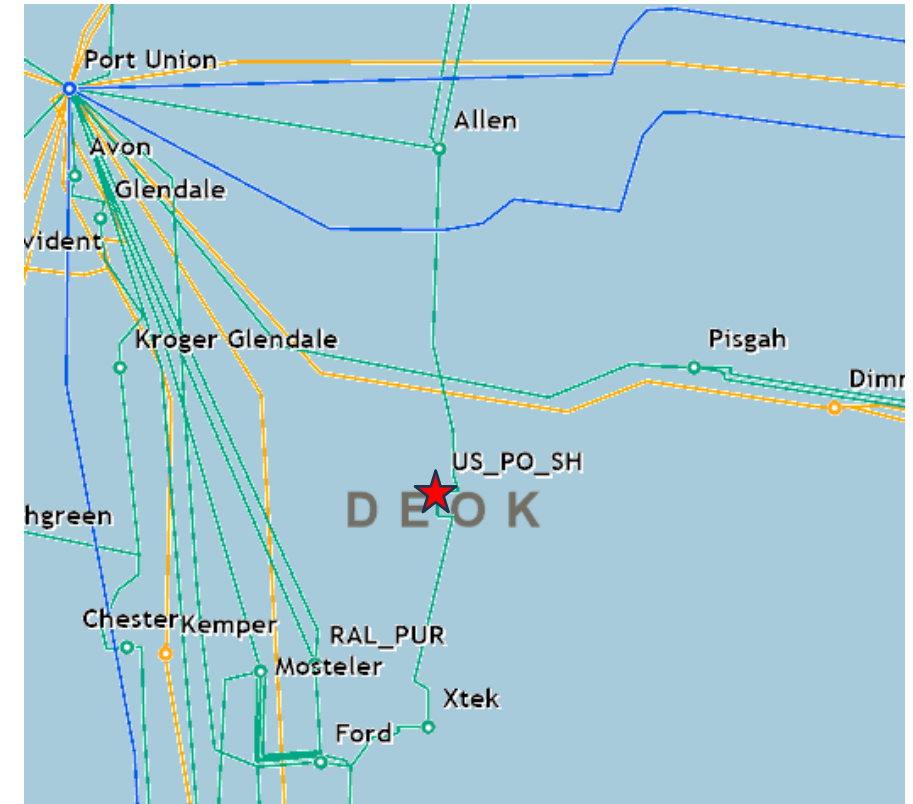
Project Drivers: Other

Specific Assumption Reference:

Duke Energy Ohio & Kentucky Local Planning Assumptions slides 11, 12

Problem Statement:

US_PO_SH is an existing 69-13 kV Duke-owned T-D substation that provides an alternate feed to the Sharonville sorting facility of the US Postal service. The substation is located on a 69 kV circuit between Allen and Xtek substations. The 12.47 kV backup feed from this substation is scheduled to be transferred to distribution circuits on nearby 138 kV substation Kemper. US_PO_SH will no longer be serving any customer load.



Need Number: DEOK-2026-008

Process Stage: Needs Meeting 10/16/2026

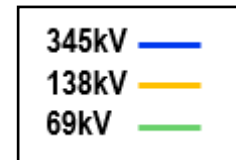
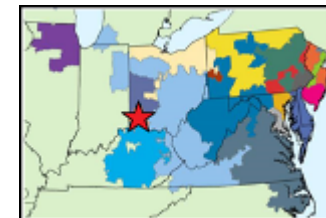
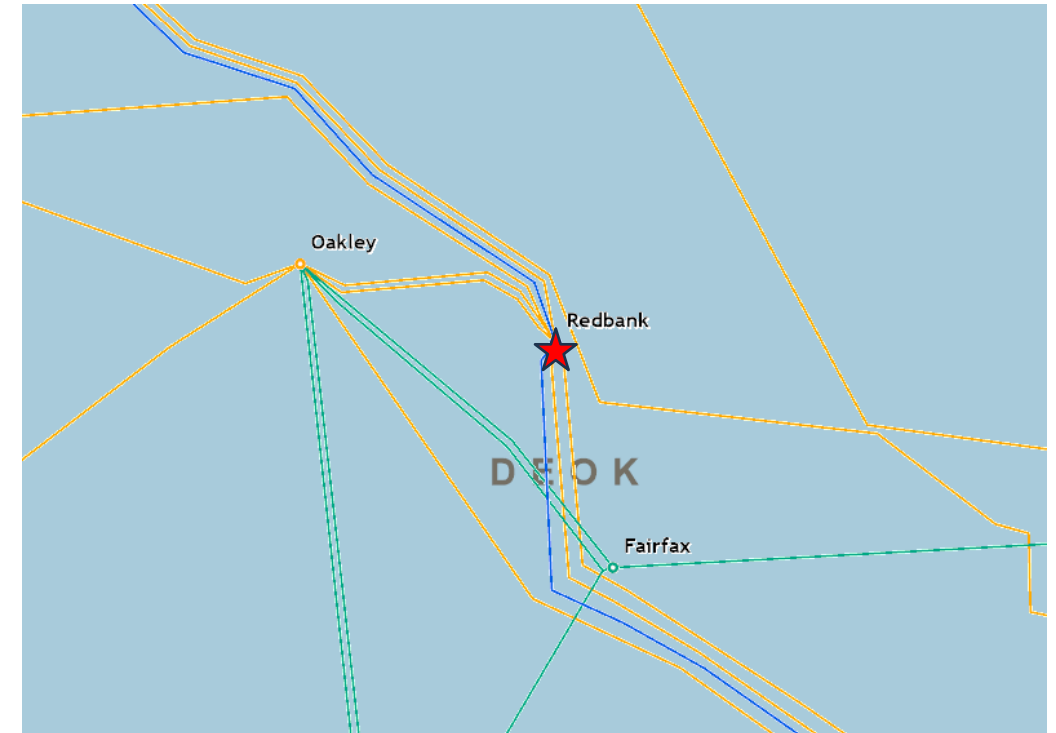
Project Drivers: Equipment Condition, Performance and Risk; Operational Flexibility and Efficiency

Specific Assumption Reference:

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

Problem Statement:

The two 138 kV buses in Red Bank transmission substation connect to six 138 kV circuits and two 345/138 kV transformers. Six 138 kV circuit breakers, as well as a number of other devices including CCVTs and RTUs, are due to be replaced as per various Duke Energy's Internal System Reliability Programs. While this planned work is taking place, Duke Energy finds that the reliability of the current substation configuration could also be improved.



DEOK Transmission Zone M-3 Process US_PO_SH 69 kV Substation Retirement

Need Number: DEOK-2026-010

Process Stage: Needs Meeting 10/16/2026

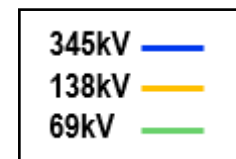
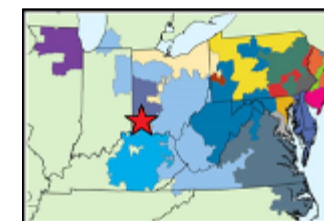
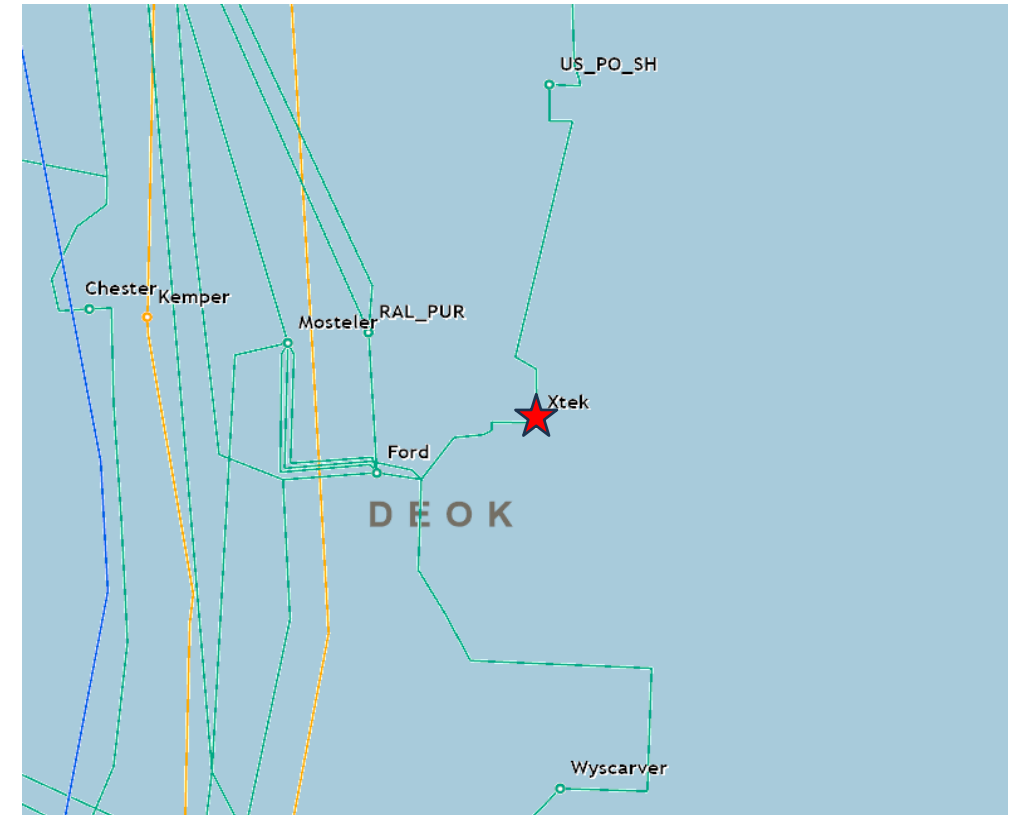
Project Drivers: Other

Specific Assumption Reference:

Duke Energy Ohio & Kentucky Local Planning Assumptions slides 11, 12

Problem Statement:

Customer XTEK will become permanently fed from Duke's 34.5 kV system and plans to retire their 69 kV substation. The substation is located on a 69 kV circuit between US_PO_SH and Wyscarver substations.



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

10/13/2026 – V1 – Original version posted to pjm.com