Sub Regional RTEP Committee: Western
DEOK Supplemental Projects

February 17, 2023

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
Wilder

Need Number: DEOK-2023-002

Process Stage: Needs Meeting 02/17/2023

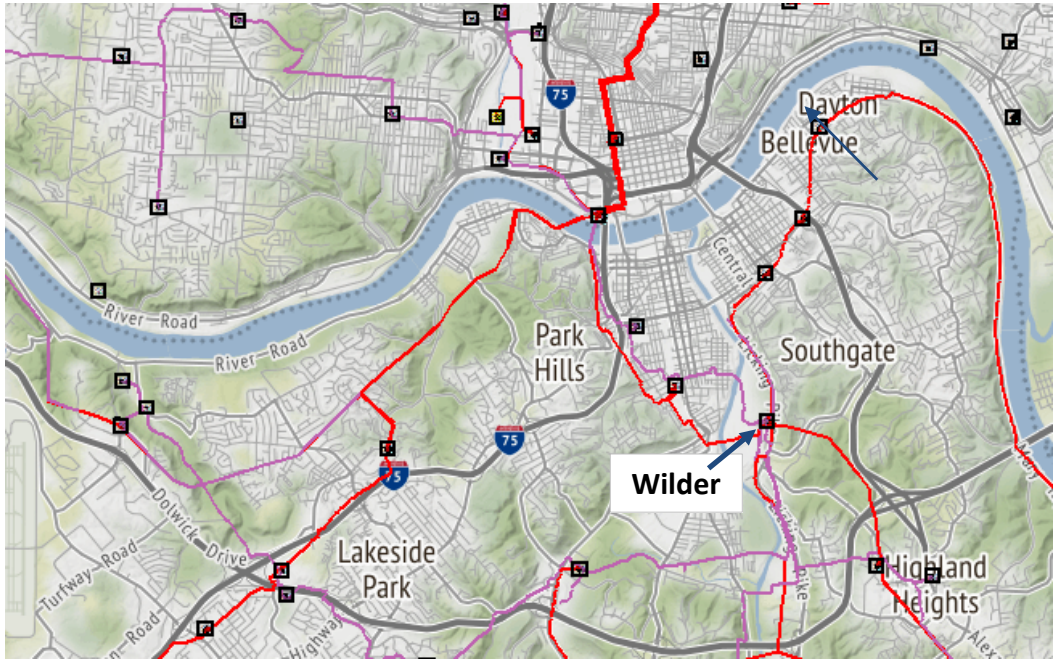
Project Driver: Equipment condition, performance and risk

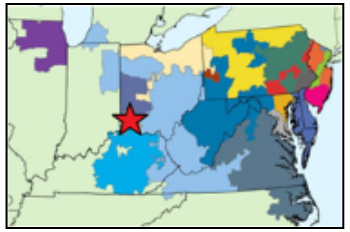
Specific Assumption Reference:

Duke Energy Ohio & Kentucky Local Planning Assumptions slides 6-7

Problem Statement:

Wilder 138 kV CB 836 is a vintage 1968 oil filled circuit breaker that is in deteriorating condition. The most recent service indicates the internal wear is exceeding its normal maintenance cycle and is trending towards costly repairs. This breaker also has type U bushings which are known to be prone to failure.





345kV
138kV
69kV

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

DEOK Transmission Zone M-3 Process
Oakbrook

Need Number: DEOK-2022-009

Process Stage: Solutions Meeting 02-17-2022

Previously Presented: Needs Meeting 11-18-2022

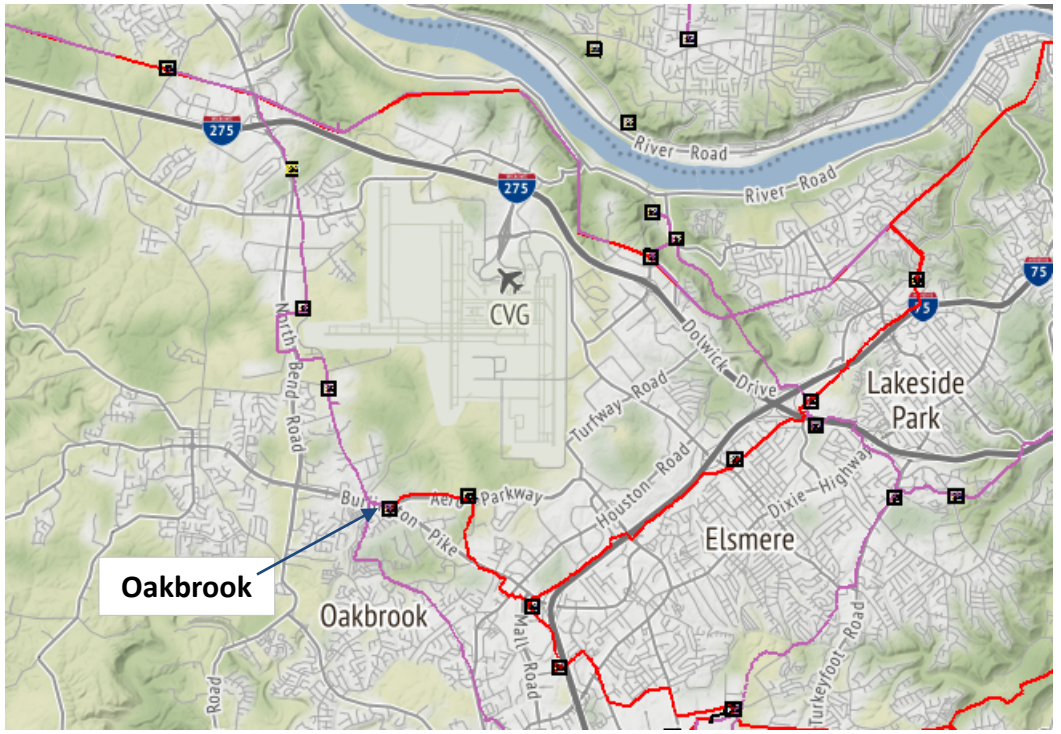
Project Driver: Customer Service

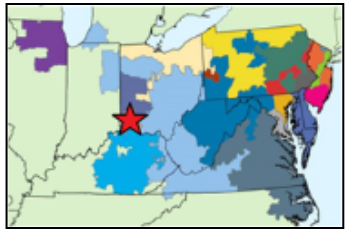
Specific Assumption Reference:

Duke Energy Ohio & Kentucky Local Planning Assumptions slide 9

Problem Statement:

Due to continued commercial and industrial load growth in the area near the Cincinnati/Northern Kentucky International Airport, Duke Energy Distribution has requested the installation of a second 69/13 kV, 22 MVA transformer at Oakbrook substation. An additional 10 MVA of load is expected by Q4 2026.





345kV
138kV
69kV

DEOK Transmission Zone M-3 Process
Oakbrook

Need Number: DEOK-2022-009

Process Stage: Solutions Meeting 02-17-2022

Previously Presented: Needs Meeting 11-18-2022

Project Driver: Customer Service

Specific Assumption Reference:

Duke Energy Ohio & Kentucky Local Planning Assumptions slide 9

Potential Solution:

Install a new 138/13 kV, 22 MVA transformer and 13 kV bus work for two feeder exits. Roll the incoming 138 kV feeder phases to align with the transformer installation.

Alternatives: none

Ancillary Benefits: Using 138 kV as the primary relieves the burden on the 69 kV circuit which is at its capacity limit.

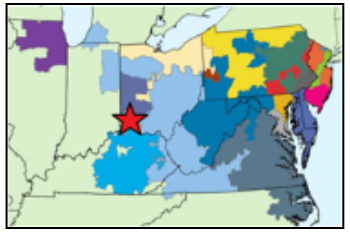
Estimated Transmission Cost: $40,965

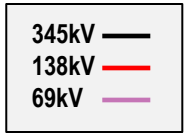
Proposed In-Service Date: 11-06-2025

Project Status: Engineering

Model: 2022 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

2/7/2022 – V1 – Original version posted to pjm.com