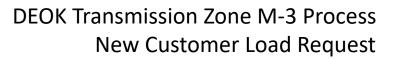
Transmission Expansion Advisory Committee DEOK Supplemental Projects

April 1, 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-2025-002

Process Stage: Solutions Meeting 04/01/2025

Previously Presented: Needs Meeting 02/04/2025

Project Driver: Customer Service

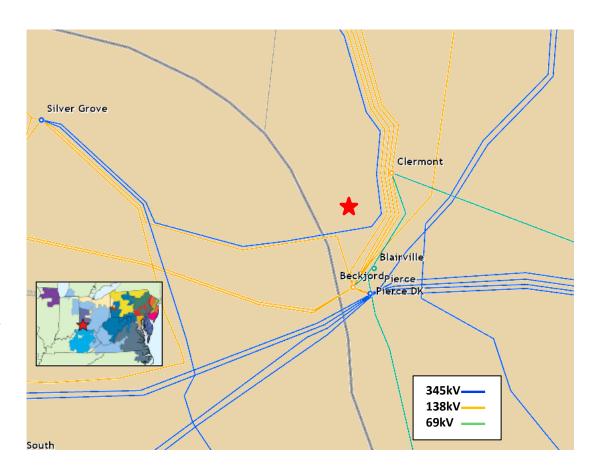
Specific Assumption Reference:

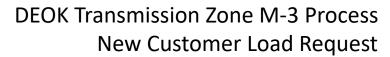
Duke Energy Ohio & Kentucky Local Planning Assumptions

slide 6

Problem Statement:

A new customer has requested transmission service near the former Beckjord Power Station site in Clermont County, Ohio. The customer requires 300 MW in 2028.







Need Number: DEOK-2025-002

Process Stage: Solutions Meeting 04/01/2025

Previously Presented: Needs Meeting 02/04/2025

Project Driver: Customer Service **Specific Assumption Reference:**

Duke Energy Ohio & Kentucky Local Planning Assumptions slide 6

Potential Solution:

Build a new 345 kV ring bus substation on the customer's site. The substation will consist of four 3000 A, 50 kA, 345 kV circuit breakers and a control building to house communications, protection and controls equipment. Two positions will be used to connect two radial feeds to the customer. The remaining two positions will be used to loop the near by Silver Grove-Red Bank 345 kV circuit in and out of the station. Intercept the Silver Grove-Red Bank circuit and extend it approximately 0.2 mile to the new substation using bundled 954 kcmil ACSR conductor.

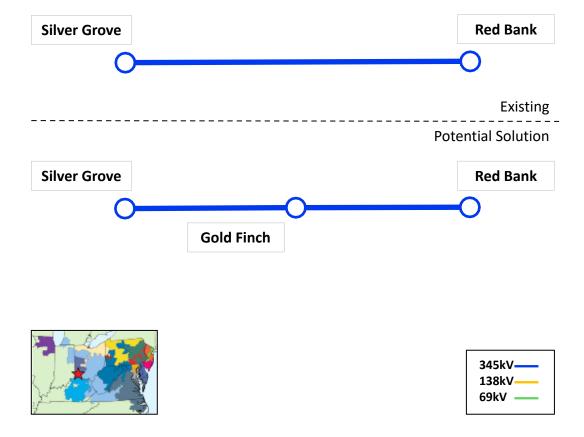
Estimated Transmission Cost: \$49.0M

Alternatives Considered:

138 kV service was initially considered. This would have required intercepting the nearby, 6-wired Beckjord –Newtown 138 kV feeder, and supplying Beckjord with more capacity by adding a 345 kV circuit breaker and 345/138 kV transformer at Pierce, a new line from Pierce to Beckjord (approximately 0.3 miles) and adding a 138 kV circuit breaker at Beckjord for the new line; all in addition to a 4-breaker, 138 kV ring bus at the customer's site. This option would have been more expensive.

Proposed In-Service Date: 06/01/2028

Project Status: Scoping Model: 2024 RTEP



Appendix

High Level M-3 Meeting Schedule

Assum	nptions
, 133 a i i	יייטואקו

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

03/21/2025 – V1 – Original version posted to pjm.com