

Sub Regional RTEP Committee: Western Dayton Supplemental Projects

May 19, 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

Need Number: Dayton-2022-001

Process Stage: Need Cancellation 05/19/2023

Previously Presented: Need Meeting 03/18/2021

Project Driver: Customer Service

Specific Assumption Reference: Dayton Local Plan Assumptions (Slide 5)

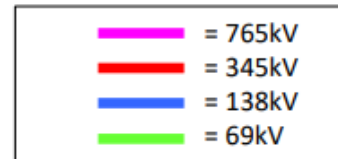
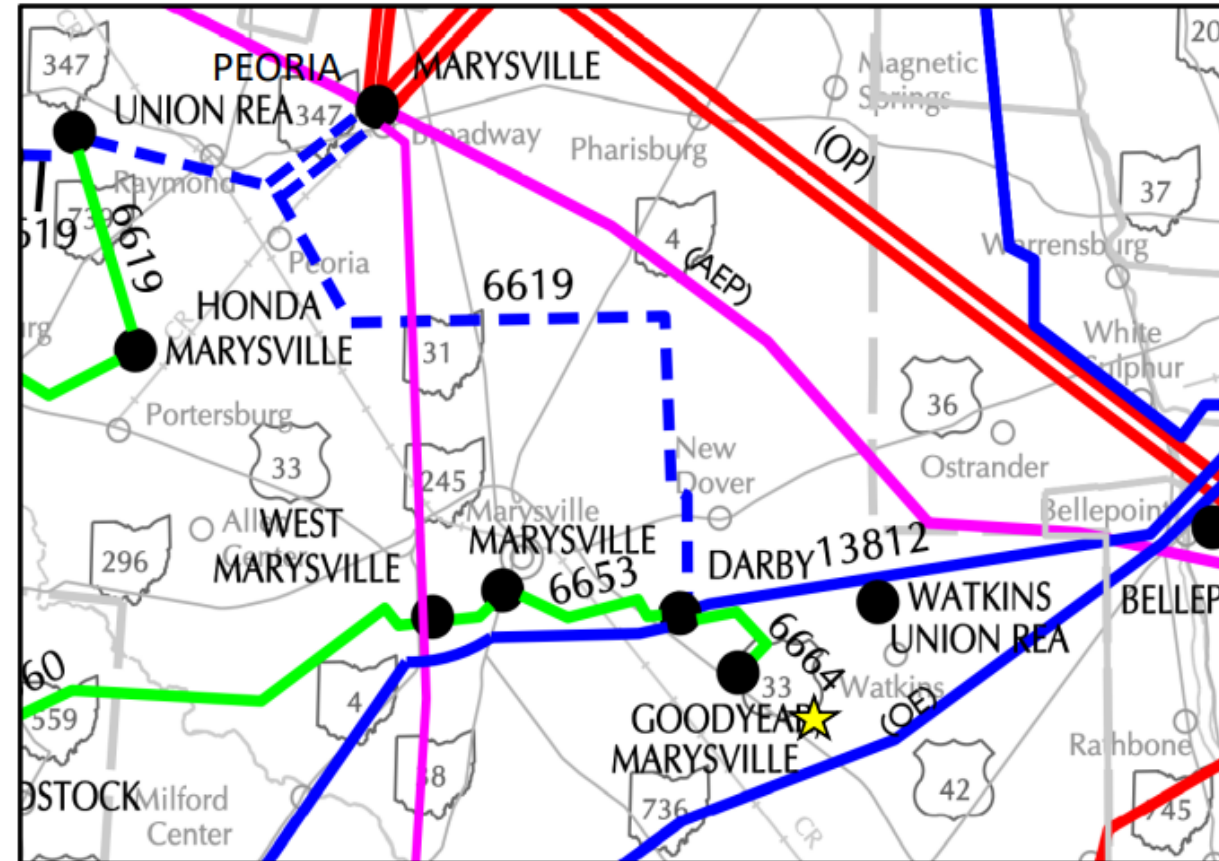
Problem Statement:

- AES has received multiple customer requests for new interconnections in the vicinity of its Darby Substation
- Total MW load requests, associated timelines, & load totals

Request	In-Service Date	Total New Connected Load
+144 MWs	6/1/2024	144 MWs
+104 MWs	6/1/2025	248 MWs
+128 MWs	6/1/2026	376 MWs

Model: 2021 RTEP Series, 2026 Summer Case

Reason for Cancellation: The customer request was withdrawn.



Need Number: Dayton-2022-002

Process Stage: Need Cancellation 05/19/2023

Previously Presented: Need Meeting 03/18/2021

Project Driver: Customer Service

Specific Assumption Reference: Dayton Local Plan Assumptions (Slide 5)

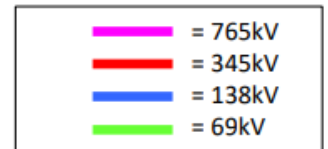
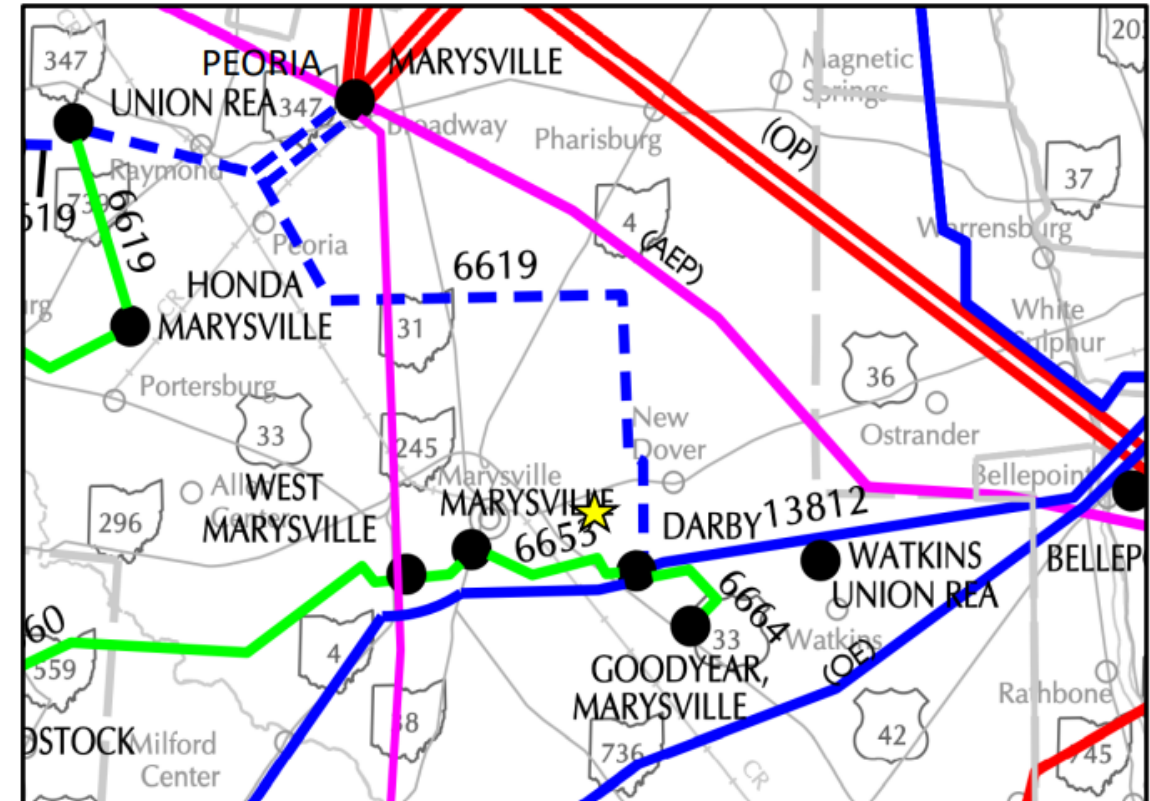
Problem Statement:

- AES has received multiple customer requests for new interconnections in the vicinity of its Darby Substation
- Total MW load requests, associated timelines, & load totals

Request	In-Service Date	Total New Connected Load
+40 MWs	6/1/2024	40 MWs

Model: 2021 RTEP Series, 2026 Summer Case

Reason for Cancellation: The customer request was withdrawn.



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: Dayton-2023-002

Process Stage: Submission of Supplemental Need, 2/17/2023

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

Specific Assumption Reference: Dayton Local Plan Assumptions (Slide 5)

Problem Statement:

- Greenfield sub is currently a two-breaker substation that services two transmission lines (6662 and 6649) and two distribution delivery points
 - The existing breakers at Greenfield are legacy oil breakers from the 1950's that have a history of poor reliability
 - Currently a single breaker failure at Greenfield sub can result in the loss of one transmission line and service to both distribution delivery points
- AES Ohio's 6649 transmission line is 13.43-mile 69kV line built in 1967 with wood poles.
 - This line has a history of poor reliability
 - There have been a total of 10 permanent outages over the last 5 years
- AES Ohio's 6662 transmission line is 4.56-mile 69kV line built in 1967 with wood poles.

Model: 2022 RTEP – 2027 Summer Case

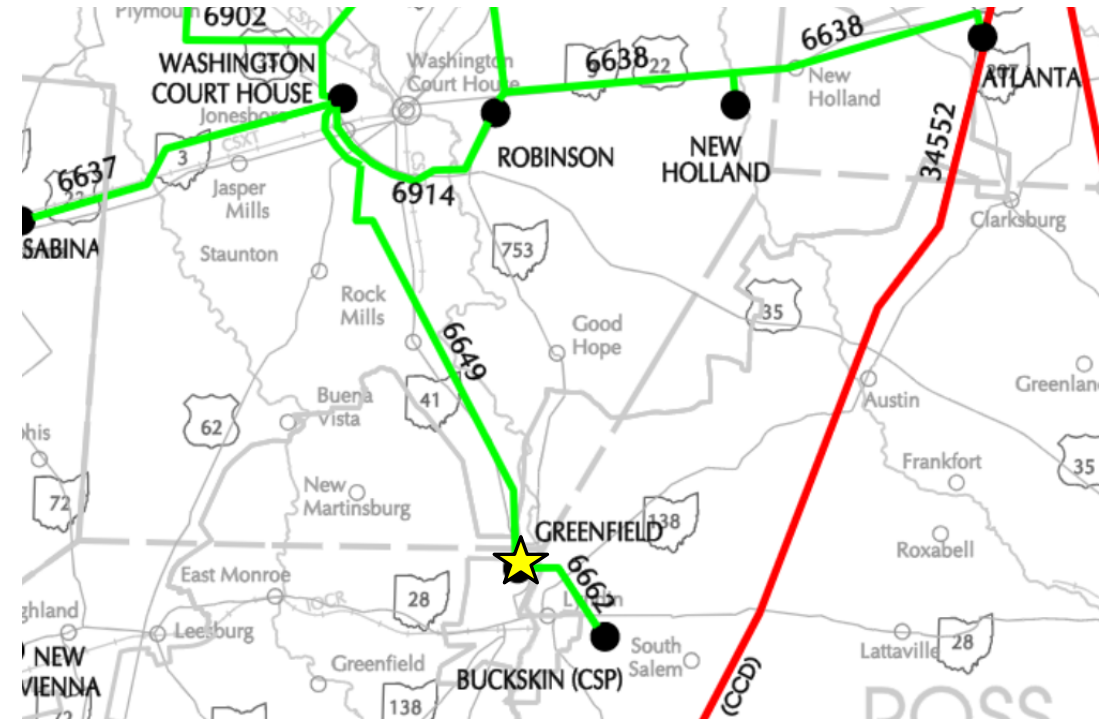
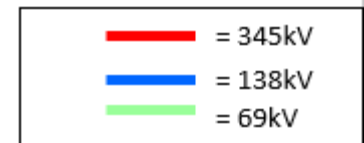


Figure 1 : Area Map



Need Number: Dayton-2023-002

Previously Presented: Need Presented, 2/17/2023

Process Stage: Solution Meeting, 05/19/2023

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

Specific Assumption Reference: Dayton Local Plan Assumptions (Slide 5)

Selected Solution:

➤ **Greenfield Substation Expansion:**

- AES will replace two (2) oil 69 kV breakers with gas breakers. AES will convert the sub from a single bus to a double bus with redundant ties, requiring the addition of 2 new 69kV breakers and reconfiguration of the bus.
- This will be completed along side work required to interconnect AE1-040.

➤ **Total Estimated Transmission Cost :** \$2.4 M

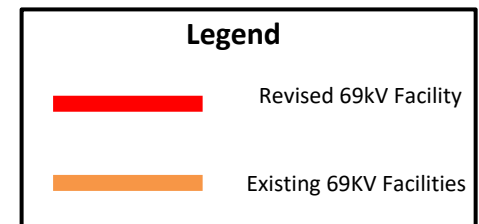
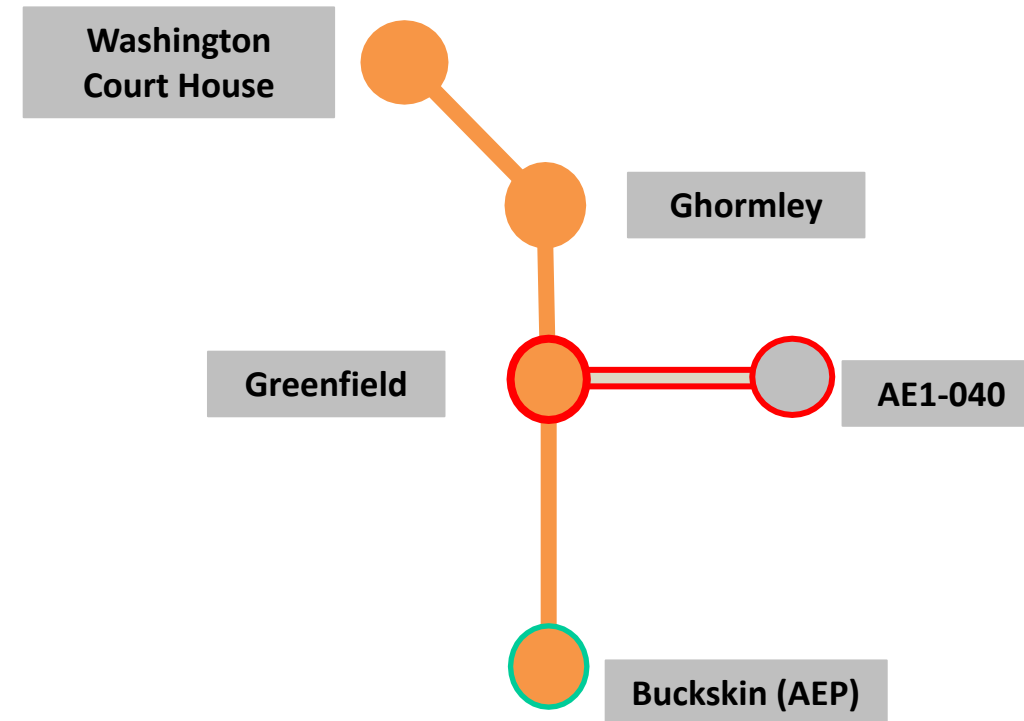
➤ **Projected In-Service:** 12/31/2026

➤ **Project Status:** Engineering

➤ **Alternatives Considered:**

- AE1-040 Scope only : Single Breaker connection to the substation would not address existing configuration and equipment needs which need addressed.

Model: 2022 RTEP – 2027 Summer Case



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

5/9/2022 – V1 – Original version posted to pjm.com

5/17/2022 – V2 – Slide #7, Correct the Queue number to AE1-040