

Lancaster Area Line Rebuilds

General Information

Proposing entity name	AEPSCT
Company proposal ID	AEP_N
PJM Proposal ID	915
Project title	Lancaster Area Line Rebuilds
Project description	AEP proposes the rebuild of approximately 6.1 miles of existing copper conductored 69 kV lines around the Lancaster area with 556 ACSR conductor. Proposed branch ratings: 245828 to 245582: 82/90/107/113 245577 to 245581: 68/86/90/103 245591 to 245581: 82/90/107/113 245587 to 245828 82/90/107/113
Project in-service date	04/2025
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	[REDACTED]

Project Components

1. South Lancaster-Lancaster Line Rebuild
2. Lancaster Junction-Ralston Rebuild
3. East Lancaster-Lancaster Tap Rebuild

Transmission Line Upgrade Component

Component title	South Lancaster-Lancaster Line Rebuild
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Impacted transmission line	South Lancaster-Lancaster 69 kV Line
Point A	South Lancaster
Point B	Lancaster
Point C	
Terrain description	Urban

Existing Line Physical Characteristics

Operating voltage	69
Conductor size and type	2/0 CU (7 strand)
Hardware plan description	Existing hardware to be removed.
Tower line characteristics	1920's Steel Towers

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	69.000000	69.000000
	Normal ratings	Emergency ratings
Summer (MVA)	102.000000	142.000000
Winter (MVA)	129.000000	160.000000
Conductor size and type	556.5 KCM ACSR 26/7 "Dove"	
Shield wire size and type	7#8 AW	
Rebuild line length	2.9 miles	
Rebuild portion description	Rebuild the 2/0 Copper section of line between Lancaster and South Lancaster, approximately 2.9 miles of the 3.2 mile total length. The remaining section has 336 ACSR conductor.	

Right of way

This project addresses the rebuild of the existing South Lancaster - Lancaster 69kV transmission line (aka East Logan – Lancaster 69kV asset), specifically the section of the existing transmission line between Lancaster Station and existing Structure 180. Reduced right-of-way acquisition is expected to support the centerline rebuild solution, as well as a slight realignment as the transmission line approaches the existing South Lancaster Extension 69kV transmission line tie-in point, near South Lancaster Station. Easements to be acquired to support this realignment will be defined at 60' in width (30' on either side of centerline). Existing easements in place for the transmission line, along with a clearly maintained existing line corridor, provide a rebuild solution that primarily leverages existing rights. Additionally, AEP holds an existing franchise agreement with the City of Lancaster that further allows a rebuild along centerline or within public road right-of-way. The project rebuild will begin at the existing Lancaster Station, and run in a general southeastern direction to a point near existing Structure 3 on the South Lancaster Extension 69kV transmission line. Aside from anticipated labor associated with completing all necessary right-of-way acquisition support and non-environmental permitting work, no additional action is anticipated as part of this project at this time. This existing transmission line is located in Fairfield County, Ohio. A review of existing easements held enables a solution that minimizes additional right-of-way acquisition. New and supplemental right-of-way will acquisition will be necessary for approximately twenty-one (21) parcels. Specifically, eight (8) new easements will be acquired, with thirteen (13) supplemental easements to acquired overall. This solution impacts approximately forty-four (44) parcels total. Aside from its current existence in public road right-of-way for a section of this line, a tabletop analysis found there were two (2) publicly-owned parcels impacted as part of this project (City of Lancaster). Existing easements and franchise agreements are sufficient to rebuild along centerline across these parcels, and within public road right-of-way. Land use types within the project footprint are well mixed with some agricultural, residential, and commercial properties impacted, as identified through Fairfield County online property information listings.

Construction responsibility

AEP

Additional comments

Business confidential information

Component Cost Details - In Current Year \$

Engineering & design

Detailed cost breakdown

Permitting / routing / siting

Detailed cost breakdown

ROW / land acquisition

Detailed cost breakdown

Materials & equipment

Detailed cost breakdown

Construction & commissioning

Detailed cost breakdown

Construction management

Detailed cost breakdown

Overheads & miscellaneous costs	Detailed cost breakdown
Contingency	Detailed cost breakdown
Total component cost	\$5,369,543.49
Component cost (in-service year)	\$.00

Transmission Line Upgrade Component

Component title	Lancaster Junction-Ralston Rebuild
Impacted transmission line	Lancaster Junction-Ralston 69 kV Line
Point A	Lancaster Junction
Point B	Ralston
Point C	
Terrain description	Urban

Existing Line Physical Characteristics

Operating voltage	69
Conductor size and type	1/0 CU (7 strand)
Hardware plan description	Existing hardware to be replaced
Tower line characteristics	1953 wood pole line

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	69.000000	69.000000
	Normal ratings	Emergency ratings
Summer (MVA)	102.000000	142.000000

Winter (MVA)	129.000000	160.000000
Conductor size and type	556.5 KCM ACSR 26/7 "Dove"	
Shield wire size and type	7#10 AW	
Rebuild line length	2.3 miles	
Rebuild portion description	Rebuild the 1/0 Copper section of the line between Lancaster Junction and Ralston station, approximately 2.3 miles of the 3.1 mile total length.	
Right of way	<p>This project addresses the rebuild of the existing East Lancaster - Lancaster Junction – Ralston 69kV transmission line (aka Lancaster Junction - Ralston 69kV), specifically the section of the existing transmission line between Lancaster Junction Station and existing Structure 58. Supplemental right-of-way acquisition is expected to support the centerline rebuild solution, specifically between Lancaster Junction Station and existing Structure 39. Existing easements are in place for the transmission line; however, the existing rights are not clearly defined and the intent is to update these existing rights by way of supplemental easement acquisition. These supplemental easements will look to clarify, further define a 50' easement width (25' on either side of centerline). The project rebuild will begin at the existing Lancaster Junction Station, and run in a general southeastern direction to existing Structure 58. Aside from anticipated labor associated with completing all necessary right-of-way acquisition support and non-environmental permitting work, no additional action is anticipated as part of this project at this time. This existing transmission line is located in Fairfield County, Ohio. Supplemental right-of-way will acquisition will be necessary for approximately sixty (60) parcels. This solution impacts approximately seventy-two (72) parcels total. A table top review showed that there are no publicly-owned parcels impacted as part of this project. Land use types within the project footprint are primarily residential, along with some minimal agricultural and commercial properties, as identified through Fairfield County online property information listings.</p>	
Construction responsibility	AEP	
Additional comments	Business confidential information	
Component Cost Details - In Current Year \$		
Engineering & design	Detailed cost breakdown	
Permitting / routing / siting	Detailed cost breakdown	
ROW / land acquisition	Detailed cost breakdown	
Materials & equipment	Detailed cost breakdown	

Construction & commissioning	Detailed cost breakdown
Construction management	Detailed cost breakdown
Overheads & miscellaneous costs	Detailed cost breakdown
Contingency	Detailed cost breakdown
Total component cost	\$4,582,157.10
Component cost (in-service year)	\$.00

Transmission Line Upgrade Component

Component title	East Lancaster-Lancaster Tap Rebuild
Impacted transmission line	East Lancaster-Lancaster Tap 69 kV Line
Point A	East Lancaster
Point B	Lancaster Tap
Point C	
Terrain description	urban

Existing Line Physical Characteristics

Operating voltage	69
Conductor size and type	2/0 Cu (7 strand)
Hardware plan description	Existing hardware to be removed
Tower line characteristics	1920s Tower line

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	69.000000	69.000000

	Normal ratings	Emergency ratings
Summer (MVA)	102.000000	142.000000
Winter (MVA)	129.000000	160.000000
Conductor size and type	556.5 KCM ACSR 26/7 "Dove"	
Shield wire size and type	7#10 AW	
Rebuild line length	0.81 miles	
Rebuild portion description	Rebuild the 2/0 Copper portion of the line between East Lancaster Tap and Lancaster, approximately 0.81 miles.	
Right of way	<p>This project addressed the rebuild of the existing East Lancaster Tap - Lancaster 69kV (aka Thornville – Lancaster 69kV) transmission line. Additional right-of-way acquisition is not expected to support the centerline rebuild solution. Existing easements in place for the transmission line, along with a clearly maintained existing line corridor, provide a rebuild solution without additional property right acquisition. The project rebuild will begin at the existing East Lancaster Station, and run in a general western direction to existing Structure 195 (tie-in point with Component 1 of this overall solution). Aside from anticipated labor associated with completing all necessary right-of-way construction support and non-environmental permitting work, no additional action is anticipated as part of this project at this time. This existing transmission line is located in Fairfield County, Ohio. A review of existing easements held provides a solution that does not necessitate additional right-of-way acquisition. Right-of-way will primarily support construction support efforts crossing eleven (11) parcels. A tabletop analysis found there were two (2) publicly-owned parcels crossed as part of this project (City of Lancaster). At this time, the presumption is that the rebuild of the existing facility is possible under existing easement rights and current franchise agreement with the City of Lancaster. Land use types within the project footprint are predominantly agricultural and government-exempt properties, as identified through Fairfield County online property information listings.</p>	
Construction responsibility	AEP	
Additional comments	Business confidential information	
Component Cost Details - In Current Year \$		
Engineering & design	Detailed cost breakdown	
Permitting / routing / siting	Detailed cost breakdown	

ROW / land acquisition	Detailed cost breakdown
Materials & equipment	Detailed cost breakdown
Construction & commissioning	Detailed cost breakdown
Construction management	Detailed cost breakdown
Overheads & miscellaneous costs	Detailed cost breakdown
Contingency	Detailed cost breakdown
Total component cost	\$1,194,966.83
Component cost (in-service year)	\$.00

Congestion Drivers

None

Existing Flowgates

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type
AEP-T376	245577	05E.LANCASTZ	245581	05LANCASTE	1	69	205	FERC 715 Thermal
AEP-T377	245577	05E.LANCASTZ	245581	05LANCASTE	1	69	205	FERC 715 Thermal
AEP-T384	245581	05LANCASTE	245591	05S.LANCAST1	1	69	205	FERC 715 Thermal
AEP-T385	245581	05LANCASTE	245591	05S.LANCAST1	1	69	205	FERC 715 Thermal
AEP-T388	245587	05RALSTON	245828	05LANCAS JTZ	1	69	205	FERC 715 Thermal
AEP-T389	245587	05RALSTON	245828	05LANCAS JTZ	1	69	205	FERC 715 Thermal

New Flowgates

None

Financial Information

Capital spend start date	09/2022
Construction start date	03/2024
Project Duration (In Months)	31

Additional comments

None