

Leesville-Altavista Rebuild

General Information

Proposing entity name	AEPSCT
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Yes
Company proposal ID	AEP_E
PJM Proposal ID	856
Project title	Leesville-Altavista Rebuild
Project description	Rebuild the double circuit 138kV line from Leesville station to Str. 17-181 at roughly 5.1 miles. Rebuild the single circuit 138kV line from Str. 17-181 to Altavista station at roughly 3.4 miles. To mitigate outage constraints, the Leesville - Altavista 138kV line will be built in the clear. The Opossum Creek - Smith Mountain 138kV line will be 6 wired from Leesville station to Str. 17-181. To mitigate the overload, the Winter emergency rating needs to be 327 MVA.
Email	nckoebler@aep.com
Project in-service date	06/2027
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	Leesville - Altavista 138kV rebuild was also identified in an IPP network ID (N6594.1).

Project Components

1. Leesville-Altavista 138 kV Rebuild

Transmission Line Upgrade Component

Component title	Leesville-Altavista 138 kV Rebuild
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Project description	Rebuild the Leesville - Altavista 138kV line asset in the clear.
Impacted transmission line	Leesville-Alta Vista
Point A	Leesville
Point B	Alta Vista
Point C	
Terrain description	The existing line is constructed on gently rolling to rolling to mountainous terrain. The line is constructed on gently rolling terrain on the Altavista end of the line, and it is constructed on mountainous terrain on the Leesville end of the line.

Existing Line Physical Characteristics

Operating voltage	138 kV
Conductor size and type	556,500cm ACSR 26/7
Hardware plan description	Existing hardware will not be used. New hardware will be installed. The Altavista-Leesville 138 kV Circuit will be rebuilt on new right-of-way. A portion of the existing Opossum Creek-Smith Mountain 138 kV line will be six wired.
Tower line characteristics	The Altavista-Leesville 138 kV Circuit is constructed on multi-pole wooden structures (1966 vintage) between Altavista Station and the double circuit lattice steel tower Structure No. 17-181 on the Opossum Creek-Smith Mountain 138 kV Line Asset. The subject circuit is attached to double circuit lattice steel tower structures (1960 vintage) on the Opossum Creek-Smith Mountain 138 kV Line Asset between existing Structure Nos. 17-181 and 17-203 at Leesville 138 kV Station. The double circuit lattice steel towers are the S1_ and X1_ series type in which the Opossum Creek-Redeye and Redeye-Smith Mountain 138 kV Circuits are attached on the northernmost side of the towers and the Altavista-Leesville 138 kV Circuit is attached on the southernmost side of the towers. The Redeye 138 kV Extension is connected to the existing tower Structure No. 17-185 on the Opossum Creek-Smith Mountain 138 kV Line Asset. The existing wires of the Altavista-Leesville 138 kV Circuit on the double circuit towers will be six-wired with the existing Opossum Creek-Smith Mountain 138 kV Circuit between Structure Nos. 17-181 and 17-203 by installing cross jumpers on each end of the designated section.

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	138.000000	138.000000

	Normal ratings	Emergency ratings
Summer (MVA)	287.000000	337.000000
Winter (MVA)	363.000000	400.000000
Conductor size and type	1,033.500 cm ACSR 54/7 (Curlew)	
Shield wire size and type	144-fiber 0.646 inch OPGW	
Rebuild line length	8.5 miles	
Rebuild portion description	The entire circuit between Altavista and Leesville Station will be constructed in the clear on new right-of-way utilizing single steel monopoles. The Smith Mountain-Opossum Creek 138 kV Line Asset will not be rebuilt under this scope of work.	
Right of way	The entire Altavista-Leesville 138 kV Circuit will be constructed on a new 100-foot wide right-of-way, except where additional right-of-way will be required due to conductor sway under active wind conditions. The areas in which additional right-of-way may be required due to the conductor sway under active wind conditions are dependent upon the completion of final design.	
Construction responsibility	AEP	
Benefits/Comments		
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 \$28,845,591.00

Component cost (in-service year) \$.00

Congestion Drivers

None

Existing Flowgates

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2022W3-GD-W99	242701	05LEESVI	314667	4ALTVSTA	1	138	205/345	Winter Gen Deliv	Included
2022W3-GD-W99	242701	05LEESVI	314667	4ALTVSTA	1	138	205/345	Winter Gen Deliv	Included

New Flowgates

None

Financial Information

Capital spend start date 01/2024

Construction start date 10/2026

Project Duration (In Months) 41

Additional Comments

None