

Tiltonville-West Bellaire 138 kV 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_F
PJM Proposal ID	574
Project title	Tiltonville-West Bellaire 138 kV Rebuild
Project description	Rebuild the Tiltonville - West Bellaire line asset, ~12.5 miles in length. Line relays and new settings will be needed at Tiltonville and Windsor stations.
Email	nckoehler@aep.com
Project in-service date	12/2028
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	The West Bellaire - Tiltonville 138 kV line asset was installed in 1969 with primarily H frame structures. There have been 6 momentary and 5 permanent outages reported over the last ten year period. Signs of hardware degradation and foundational concerns are present.

Project Components

1. Tiltonville-West Bellaire 138 kV Rebuild

Transmission Line Upgrade Component

Component title	Tiltonville-West Bellaire 138 kV Rebuild
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Project description	Rebuild the 138 kV line between Tiltonville and West Bellaire (~12.5 miles).	
Impacted transmission line	Tiltonville-West Bellaire 138 kV Line	
Point A	Tiltonville	
Point B	West Bellaire	
Point C		
Terrain description	Mountainous and rural terrain.	
Existing Line Physical Characteristics		
Operating voltage	138	
Conductor size and type	795 ACSR	
Hardware plan description	Existing hardware will be retired and not reused.	
Tower line characteristics	The existing structures are primarily H-frames installed in 1969, single circuit.	
Proposed Line Characteristics		
	Designed	Operating
Voltage (kV)	138.000000	138.000000
	Normal ratings	Emergency ratings
Summer (MVA)	291.000000	388.000000
Winter (MVA)	368.000000	441.000000
Conductor size and type	1033 ACSR	
Shield wire size and type	1-144 count fiber OPGW and 7#8 Alumoweld	
Rebuild line length	12.5 miles	

Rebuild portion description	The total structure count for the total 12.5 miles line will be 57 new structures in the same relative location: - 39 Tangent Galvanized Steel H-Frames - 4 Running Corner Galvanized Steel H-Frames - 8 Dead-end Galvanized steel 3-poles - 6 Running Corner Steel 3-poles
Right of way	Supplemental easements to be obtained as needed. Rebuild to be completed in existing ROW.
Construction responsibility	AEP
Benefits/Comments	The West Bellaire - Tiltonsville 138 kV line asset was installed in 1969 with primarily H frame structures. There have been 6 momentary and 5 permanent outages reported over the last ten year period. Signs of hardware degradation and foundational concerns are present.
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	\$28,566,177.84
Component cost (in-service year)	\$28,566,178.84
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
2024W1-GD-S53	243143	05WBELLA	243131	05TILTON	1	138	205	Summer Gen Deliv	Included
2024W1-GD-S399	243143	05WBELLA	243131	05TILTON	1	138	205	Summer Gen Deliv	Included
2024W1-GD-S883	243143	05WBELLA	243131	05TILTON	1	138	205	Summer Gen Deliv	Included
2024W1-IPD-S91	243131	05TILTON	243143	05WBELLA	1	138	205	Summer IPD	Included

New Flowgates

None

Financial Information

Capital spend start date 01/2025

Construction start date 06/2027

Project Duration (In Months) 47

Additional Comments

None