

Tidd-Mahans Lane 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_E
PJM Proposal ID	117
Project title	Tidd-Mahans Lane 138 kV Rebuild
Project description	Project will rebuild ~6.48 miles of the AEP-owned portion making up the Tidd - Mahans Lane 138 kV circuit.
Email	nckoebler@aep.com
Project in-service date	12/2028
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	The line between Tidd and Mahans Lane was originally constructed in the 1950's being comprised of mostly H-Frame wooden structures. There are signs of hardware degradation as well as foundational concerns. Project will replace all AEP owned deteriorating assets.

Project Components

1. Tidd-Mahans Lane 138 kV Rebuild

Transmission Line Upgrade Component

Component title	Tidd-Mahans Lane 138 kV Rebuild
-----------------	---------------------------------

Project description	Rebuild the AEP owned portion of the Tidd-Mahans Lane 138 kV line, approximately 6.48 miles.	
Impacted transmission line	Tidd-Mahans Lane	
Point A	Tidd	
Point B	Mahans Lane	
Point C		
Terrain description	Hilly	
Existing Line Physical Characteristics		
Operating voltage	138	
Conductor size and type	556 ACSR	
Hardware plan description	No existing hardware will be used. Existing hardware to be retired and removed.	
Tower line characteristics	Primarily consists of H-Frame structures, total towers to be removed: - 24 Tangent H-Frames - 8 Running Corners - 2 3-pole Dead-ends - 2 Dead-end Steel Lattice Towers	
Proposed Line Characteristics		
	Designed	Operating
Voltage (kV)	138.000000	138.000000
	Normal ratings	Emergency ratings
Summer (MVA)	293.000000	341.000000
Winter (MVA)	370.000000	406.000000
Conductor size and type	1033 ACSR	
Shield wire size and type	1-144 count fiber OPGW and 7#8 Alumoweld	
Rebuild line length	6.48 miles	
Rebuild portion description	Rebuild 6.48 miles of line with steel H-frame and monopole structures.	

Right of way	Supplement existing easements as needed. Rebuild will be done in existing ROW.
Construction responsibility	AEP
Benefits/Comments	The line between Tidd and Mahans Lane was originally constructed in the 1950's being comprised of mostly H-Frame wooden structures. There are signs of hardware degradation as well as foundational concerns. Note that line will be limited overall by FE owned terminal equipment at Mahans Lane.
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	\$15,050,317.02
Component cost (in-service year)	\$15,050,317.02

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-IPD-S36	235363	01MAHNSL	243347	05TIDD 3-4	1	138	201/205	Summer IPD	Included
2024W1-IPD-S37	235363	01MAHNSL	243347	05TIDD 3-4	1	138	201/205	Summer IPD	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2024W1-GD-S316	243347	05TIDD 3-4	235363	01MAHNSL	1	138	201/205	Summer Gen Deliv	Included
2024W1-GD-S860	243347	05TIDD 3-4	235363	01MAHNSL	1	138	201/205	Summer Gen Deliv	Included
2024W1-N1-ST41	243347	05TIDD 3-4	235363	01MAHNSL	1	138/138	205/201	Summer Thermal	Included
2024W1-N1-ST42	243347	05TIDD 3-4	235363	01MAHNSL	1	138/138	205/201	Summer Thermal	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