Smith Mountain-Museville 138 kV Upgrades

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_A
PJM Proposal ID	733
Project title	Smith Mountain-Museville 138 kV Upgrades
Project description	Rebuild one span of the Smith Mountain-Museville 138 kV line and replace disconnect switches at Smith Mountain station.
Email	nckoehler@aep.com
Project in-service date	06/2027
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	N/A

Project Components

1. Smith Mountain-Museville 138 kV Line Upgrade
2. Smith Mountain 138 kV Equipment Replacement

Transmission Line Upgrade Component

Component title	Smith Mountain-Museville 138 kV Line Upgrade

Project description	Reconductor one span of the Smith Mountain-Museville 138 kV line with 2-556 ACSR conductor
Impacted transmission line	Smith Mountain-Museville 138 kV
Point A	Smith Mountain
Point B	Museville
Point C	
Terrain description	Mountainous
Existing Line Physical Characteristics	
Operating voltage	138
Conductor size and type	1033 ACSR
Hardware plan description	New hardware will be installed on the towers to accommodate the new conductor bundle.
Tower line characteristics	1962 era steel lattice
Proposed Line Characteristics	

	Designed	Operating
Voltage (kV)	138.000000	138.000000
	Normal ratings	Emergency ratings
Summer (MVA)	409.000000	409.000000
Winter (MVA)	517.000000	517.000000

Conductor size and type	2-556 ACSR
Shield wire size and type	N/A
Rebuild line length	N/A - one span to be replaced
Rebuild portion description	Reconductor one span of the line just outside Smith Mountain station to increase the ratings of the line.

Right of way	Supplemental ROW to be obtained if or as needed.
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	$1,431,743.54
Component cost (in-service year)	$1,431,743.54

Substation Upgrade Component

Component title	Smith Mountain 138 kV Equipment Replacement
Project description	Replace Smith Mountain 138 kV Switches CS1, CS2 and C1S2 with 3000 A switches and replace switch jumpers with 2-1272 AAC
Substation name	Smith Mountain
Substation zone	205 - AEP
Substation upgrade scope	Replace Smith Mountain 138 kV Switches CS1, CS2 and C1S2 with 3000 A switches and replace switch jumpers with 2-1272 AAC

Transformer Information

None

New equipment description	3000A 138 kV switches
Substation assumptions	All equipment will be replaced in the existing location.
Real-estate description	N/A
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	$374,389.14
Component cost (in-service year)	$374,389.14

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
2025W1-ME1	290234	05MUSEVILLE	242802	05SMITHMTN	1	138	205	Market Efficiency	Included

New Flowgates

None

Financial Information

Capital spend start date	01/2026
Construction start date	03/2027
Project Duration (In Months)	17

Additional Comments

None