Allen-Sorenson 345kV Sag Study

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_D
PJM Proposal ID	341
Project title	Allen-Sorenson 345kV Sag Study
Project description	Perform a sag study on the Allen-Sorenson 345kV circuit, part of the East Lima-Sorenson 345kV line, from Sorenson station to structure 214. Scope to mitigate sag clearance concerns include: 59 towers will need 5' extensions, 12 towers will need 10' extensions, and 4 towers will need full replacement.
Email	jmperez@aep.com
Project in-service date	04/2030
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	

Project Components

1. Allen-Sorenson 345kV Circuit

Transmission Line Upgrade Component

Component title	Allen-Sorenson 345kV Circuit

Project description	Perform sag study on Allen-Sorenson 345kV circuit, part of the East Lima-Sorenson 345kV Line asset, from Sorenson station to structure 214. This proposal aims to bring the circuit to full MOT. 59 towers will require 5' extensions, 12 towers will require 10' extensions and 4 towers will need full replacement.
Impacted transmission line	Allen-Sorenson 345kV
Point A	Structure 214 of Allen-Sorenson 345kV Line
Point B	Sorenson Station
Point C	
Terrain description	Flat
Existing Line Physical Characteristics	
Operating voltage	345
Conductor size and type	1275 KCM ACSR/PE 54/19 originally installed in 1954.
Hardware plan description	Reuse the existing hardware
Tower line characteristics	The existing structures are steel double circuit lattice structures originally installed in 1954.
Proposed Line Characteristics	

	Designed	Operating
Voltage (kV)	345.000000	345.000000
	Normal ratings	Emergency ratings
Summer (MVA)	897.000000	1302.000000
Winter (MVA)	1138.000000	1451.000000

Conductor size and type	1275 KCM ACSR/PE 54/19
Shield wire size and type	159,000 CM ACSR 12/7 Guinea
Rebuild line length	0

Rebuild portion description	N/A
Right of way	It is expected the mitigation work associated with the sag study will be able to be done under the existing right of way and outages will be available to complete the tower extension/replacement work.
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	$37,375,449.00
Component cost (in-service year)	$37,375,449.00

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
2025W1-GD-W383	243232	05SORENS	243211	05ALLEN	1	345	205	Generation Deliverability	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-IPD-W39	243211	05ALLEN	243232	05SORENS	1	345	205	Individual Plant Deliverability	Included
2025W1-GD-S470	243232	05SORENS	243211	05ALLEN	1	345	205	Generation Deliverability	Included
2025W1-IPD-W9	243211	05ALLEN	243232	05SORENS	1	345	205	Individual Plant Deliverability	Included
2025W1-IPD-W22	243211	05ALLEN	243232	05SORENS	1	345	205	Individual Plant Deliverability	Included
2025W1-IPD-W38	243211	05ALLEN	243232	05SORENS	1	345	205	Individual Plant Deliverability	Included
2025W1-IPD-W36	243211	05ALLEN	243232	05SORENS	1	345	205	Individual Plant Deliverability	Included
2025W1-IPD-W37	243211	05ALLEN	243232	05SORENS	1	345	205	Individual Plant Deliverability	Included

New Flowgates

None

Financial Information

Capital spend start date	12/2025
Construction start date	01/2027
Project Duration (In Months)	52

Additional Comments

None