Beatty-Bolton-Phillipi 138kV Line

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_X
PJM Proposal ID	377
Project title	Beatty-Bolton-Phillipi 138kV Line
Project description	Rebuild approximately 10 miles of 138kV line from Bolton to Beatty to Phillipi stations utilizing 1,033 ACSR conductor.
Email	jmperez@aep.com
Project in-service date	09/2029
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	

Project Components

1. Beatty-Bolton 138kV Circuit
2. Beatty-Phillipi 138kV Circuit

Transmission Line Upgrade Component

Component title	Beatty-Bolton 138kV Circuit

Project description	Rebuild Beatty-Bolton 138kV circuit, which is part of the Beatty-Wilson 138kV line asset, as double circuit from Beatty Station to Bolton Station. Replace conductor on Beatty-Bolton section with 1033 ACSR Curlew.
Impacted transmission line	Beatty-Bolton 138kV
Point A	Beatty 138kV Station
Point B	Bolton 138kV Station
Point C	
Terrain description	Flat/urban
Existing Line Physical Characteristics	
Operating voltage	138
Conductor size and type	636 ACSR 26/7 & 1033 ACSR 54/7
Hardware plan description	Hardware will be replaced
Tower line characteristics	Double circuit steel lattice towers originally installed in 1952.
Proposed Line Characteristics	

	Designed	Operating
Voltage (kV)	138.000000	138.000000
	Normal ratings	Emergency ratings
Summer (MVA)	295.000000	411.000000
Winter (MVA)	373.000000	461.000000

Conductor size and type	1033 ACSR Curlew 54/7
Shield wire size and type	7#8 Alumoweld AW7 Shield Wire
Rebuild line length	2.64 miles

Rebuild portion description	Rebuild from Beatty Road to Bolton station as double circuit 138kV. Reconductor 636 ACSR sections to 1033 ACSR.
Right of way	Existing right of way will be adequate for the most part. It is assumed right of way/easement rights will need augmented only in the section near Phillipi.
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	$7,406,266.15
Component cost (in-service year)	$7,406,266.15

Transmission Line Upgrade Component

Component title	Beatty-Phillipi 138kV Circuit
Project description	Rebuild 7.85 miles of 138kV line between Beatty Road 138kV and Phillipi 138kV stations.
Impacted transmission line	Beatty-Phillipi 138kV Circuit
Point A	Beatty Road 138kV Station
Point B	Structure 48 (just outside Phillipi station)

Point C

Terrain description	Flat/urban.
Existing Line Physical Characteristics	
Operating voltage	138
Conductor size and type	636 ACSR 26/7 & 1033 ACSR 54/7
Hardware plan description	Hardware will be replaced.
Tower line characteristics	Double Circuit Lattice structures originally installed in 1952.
Proposed Line Characteristics	

	Designed	Operating
Voltage (kV)	138.000000	138.000000
	Normal ratings	Emergency ratings
Summer (MVA)	295.000000	411.000000
Winter (MVA)	373.000000	461.000000

Conductor size and type	1033 ACSS Curlew 54/7
Shield wire size and type	7#8 Alumoweld AW7 Shield Wire
Rebuild line length	7.85 miles
Rebuild portion description	The circuit will be rebuilt as double circuit from Beatty to Phillipi. 636 ACSR conductor along this path will be replaced with 1033 ACSR
Right of way	It is expected existing right of way will be adequate for the most part. A section near Phillipi is expected to need augmented right of way/easements.
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	$22,218,798.44
Component cost (in-service year)	$22,218,798.44

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-N11-ST114	243469	05BEATTY	246716	05PHILLIPI	1	138	205	N-1-1 Thermal	Included
2025W1-N11-ST79	243469	05BEATTY	246716	05PHILLIPI	1	138	205	N-1-1 Thermal	Included
2025W1-N11-ST102	243469	05BEATTY	247896	05BOLTON	1	138	205	N-1-1 Thermal	Included
2025W1-N11-ST109	243469	05BEATTY	247896	05BOLTON	1	138	205	N-1-1 Thermal	Included
2025W1-N11-ST94	243469	05BEATTY	246716	05PHILLIPI	1	138	205	N-1-1 Thermal	Included

New Flowgates

None

Financial Information

Capital spend start date	03/2026
Construction start date	10/2028
Project Duration (In Months)	42

Additional Comments

None