

# Rebuild Beatty-Cyprus 138 kV 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_D
PJM Proposal ID	769
Project title	Rebuild Beatty-Cyprus 138 kV Line
Project description	Rebuild approximately 7.9 miles of the Beatty-White Road-Cyprus 138 kV line to address thermal violations identified in the 2029 RTEP Window 1.
Email	nckoebler@aep.com
Project in-service date	04/2028
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	The existing overhead sections between Beatty Road and Cyprus stations are mostly comprised of wood poles. More than half of the structures date back to the 1960's. The vast majority of the conductor on the line was originally installed in 1967. Rebuilding the line would replace these deteriorating assets.

## Project Components

1. Beatty-Cyprus 138 kV Rebuild

### Transmission Line Upgrade Component

Component title	Beatty-Cyprus 138 kV Rebuild
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Project description	Rebuild two overhead sections of the 138 kV line between Beatty Road and Cyprus stations (approximately 7.84 miles). Update remote end relay settings as needed. Note that a portion of the Beatty-White Road line is double circuited with the Beatty-McComb 138 kV line.	
Impacted transmission line	Beatty-Cyprus 138 kV	
Point A	Beatty	
Point B	Cyprus	
Point C	White Road.	
Terrain description	Flat terrain, through urban areas.	
Existing Line Physical Characteristics		
Operating voltage	138	
Conductor size and type	636 KCM AAC 37 Orchid	
Hardware plan description	All existing structures/hardware will be removed as part of this rebuild scope	
Tower line characteristics	Structures are majority 1967, 1970, and 1972 vintage wood and steel monopoles, single and double circuit sections.	
Proposed Line Characteristics		
	Designed	Operating
Voltage (kV)	138.000000	138.000000
	Normal ratings	Emergency ratings
Summer (MVA)	329.000000	361.000000
Winter (MVA)	424.000000	453.000000
Conductor size and type	1033 ACSS Curlew	
Shield wire size and type	159 ACSR Guinea and 7#8 Alumoweld	
Rebuild line length	7.9 miles	

Rebuild portion description	Rebuild about 7.84 miles from Beatty Road Station up to structure 169 (towards Cyprus Station). Line scope to be rebuilt on a structure-for-structure basis utilizing the existing ROW.
Right of way	Supplement existing ROW if/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	\$33,112,995.16
Component cost (in-service year)	\$33,112,996.16

## 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-S854	243469	05BEATTY	243586	05WHITER	1	138	205	Summer Gen Deliv	Included
2024W1-IPD-S15	243469	05BEATTY	243586	05WHITER	1	138	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-N11-ST1	243469	05BEATTY	243586	05WHITER	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N11-ST2	243469	05BEATTY	243586	05WHITER	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N11-ST5	243469	05BEATTY	243586	05WHITER	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N11-ST6	243469	05BEATTY	243586	05WHITER	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N1-ST19	243469	05BEATTY	243586	05WHITER	1	138/138	205/205	Summer Thermal	Included
2024W1-GD-S873	243586	05WHITER	288776	05CYPRUS34	1	138	205	Summer Gen Deliv	Included
2024W1-IPD-S42	243586	05WHITER	288776	05CYPRUS34	1	138	205	Summer IPD	Included
2024W1-N11-ST31	243586	05WHITER	288776	05CYPRUS34	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N11-ST32	243586	05WHITER	288776	05CYPRUS34	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N1-ST57	243586	05WHITER	288776	05CYPRUS34	1	138/138	205/205	Summer Thermal	Included

## New Flowgates

None

## Financial Information

Capital spend start date 01/2025

Construction start date 06/2027

Project Duration (In Months) 39

## Additional Comments

None