

Cyprus Station Reconfiguration

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_K
PJM Proposal ID	756
Project title	Cyprus Station Reconfiguration
Project description	Project proposes to reconfigure the 138 kV lines into Cyprus station to separate the station from the 138 kV network in the area.
Email	wrburkett@aep.com
Project in-service date	08/2027
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	

Project Components

1. Cyprus and Parsons Transmission Line Reconfigurations
2. Cyprus Station Work
3. Kenny Relaying Upgrade

Transmission Line Upgrade Component

Component title	Cyprus and Parsons Transmission Line Reconfigurations
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Project description	Project proposes to perform transmission line work just outside Cyprus station to bypass Cyprus station at 138 kV. The existing extension to Cyprus will be tied into the existing extension to Parsons station. This will create a new through path for the 138 kV circuit between White Rd and Canal stations through Parsons station rather than Cyprus as it exists today. The work will establish new White Rd - Parsons and Parsons - Canal 138 kV circuits. Cyprus and the load served directly from the station will be solely sourced from the two 345 kV transformers being established at the station under s3440.1.	
Impacted transmission line	White Road - Cyprus - Canal 138 kV	
Point A	White Rd	
Point B	Cyprus	
Point C	Canal	
Terrain description	Industrial area flat terrain.	
Existing Line Physical Characteristics		
Operating voltage	138	
Conductor size and type	795 ACSS 26/7 Drake	
Hardware plan description	Existing hardware to be reused. Originally installed in 2022	
Tower line characteristics	Both extensions involved utilize steel structures and were originally constructed in 2022. No condition concerns exist.	
Proposed Line Characteristics		
	Designed	Operating
Voltage (kV)	138.000000	138.000000
	Normal ratings	Emergency ratings
Summer (MVA)	216.000000	243.000000
Winter (MVA)	272.000000	289.000000
Conductor size and type	795 ACSS 26/7 Drake	

Shield wire size and type	7 #8 Alumoweld
Rebuild line length	0.1 miles (Single Spans)
Rebuild portion description	New Dead End structures will be installed in place of existing structures on the lines. Two spans of conductor will be installed between the Cyprus and Parsons extensions near structure 2 on both lines to tie the 138 kV circuits together. Two spans on the Cyprus extension and Parsons Extension between structure 2 and Cyprus station will be retired.
Right of way	No new ROW will be required. All work will be performed within existing rights.
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	\$1,215,000.00
Component cost (in-service year)	\$1,215,000.00
Substation Upgrade Component	
Component title	Cyprus Station Work
Project description	Removal work will be performed at Cyprus station to facilitate the reconfiguration work planned on the Cyprus and Parsons 138 kV extensions

Substation name	Cyprus
Substation zone	205
Substation upgrade scope	Five (5) 138 kV circuit breakers and associated equipment will be removed from Cyprus station to facilitate the reconfiguration work planned on the Cyprus and Parsons 138 kV extensions
Transformer Information	
None	
New equipment description	N/A
Substation assumptions	N/A
Real-estate description	N/A
Construction responsibility	AEP
Benefits/Comments	The 138 kV breakers being removed from Cyprus will be reused else on the AEP system, either as part of other projects or as capital spares.
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	\$270,000.00
Component cost (in-service year)	\$270,000.00

Substation Upgrade Component

Component title	Kenny Relaying Upgrade
Project description	Project will upgrade the relaying at Kenny Station that is currently limiting the Kenny - Clinton 138 kV line.
Substation name	Kenny
Substation zone	205
Substation upgrade scope	Relaying work will be performed at Kenny station to replace the relaying elements currently setting the thermal limit on the Kenny - Clinton 138 kV line.

Transformer Information

None	
New equipment description	New relaying will be installed
Substation assumptions	Work will be performed within the existing control house and that space is available
Real-estate description	N/A
Construction responsibility	AEP
Benefits/Comments	The reconfiguration work proposed near Cyprus station is slightly increasing flow on the Kenny - Clinton 138 kV line potentially creating an overload. The line is already above 99% in the base case.

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

\$260,000.00

Component cost (in-service year)

\$260,000.00

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

New Flowgates

None

Financial Information

Capital spend start date 01/2025

Construction start date 12/2026

Project Duration (In Months) 31

Additional Comments

None