

# Cloverdale Transformer Addition

## 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_H
PJM Proposal ID	202
Project title	Cloverdale Transformer Addition
Project description	AEP proposes to establish a new 500/345 kV, 1500 MVA transformer and a new breaker string consisting of two new 500 kV circuit breakers, located in the Cloverdale 500 kV yard. A new 345 kV tie-line between the 500 kV yard and 345/138 kV yards will be required. In addition, a new 345 kV breaker string and two new 345 kV circuit breakers will be required in the 345/138 kV yard.
Email	nckoebler@aep.com
Project in-service date	10/2026
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	

## Project Components

1. Cloverdale Transformer Addition

### Substation Upgrade Component

Component title	Cloverdale Transformer Addition
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Project description	Add a third 500/345 kV transformer at Cloverdale station.
Substation name	Cloverdale
Substation zone	205 - AEP
Substation upgrade scope	Add a new 500MVA 500/345KV Transformer bank in the 500kV Cloverdale East yard. Two new breaker in a half strings will be added, one in the 500kV yard with 2 new 500kV CB's and 2 in the 138kV yard with 2 new 345kV CB's. Build new 345kV line exit in the 500kV yard and new 345kV line termination in the 345kV yard. 500kV line to Dominion will need to be moved and reterminated in new position with one additional 500 kV breaker to allow room for new transformer bank. A 16'X12' control building expansion will be required for the 500kV yard control building. All work will be completed on existing AEP property. No station fence expansion is required.

### Transformer Information

	<b>Name</b>	<b>Capacity (MVA)</b>		
Transformer	1	1500		
	<b>High Side</b>	<b>Low Side</b>	<b>Tertiary</b>	
Voltage (kV)	500	345		
New equipment description	3-500kV Circuit Breakers (SN-4168A/ SE-4168A/ WN-5166A/ WE-5166A), 15-500kV Single Phase Disconnect Switches (SN-4586A/ SE-5032A/ WN-5955A/ WE-6321A), 6" Tubular Bus (SN-5764A/ SE-6914A/ WN-7361A/ WE-8228A), 3-2500AAC Conductor (SN-5423A/ SE-6381A/ WN-6870A/ WE-7594A), 4-2000AAC Conductor (SN-6410A/ SE-7516A/ WN-8114A/ WE-8944A), 3-Single Phase 500MVA 500/345KV Auto Transformers, 9-345KV Disconnect Switches (SN-5733A/ SE-6290A/ WN-7443A/ WE-7902A), 2-345kV Circuit Breakers (SN-5210A/ SE-5210A/ WN-6457A/ WE-6457A)			
Substation assumptions	Project will utilize available space on AEP owned property inside the existing station fence. No new land or station expansion is required.			
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	\$57,285,348.00
Component cost (in-service year)	\$.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
2022W3-GD_L330	242524	05CLOVRD	242519	05CLOVRD	16	345/500	205/205	Light Load Gen Deliv	Included
2022W3-N1-LLT6	242524	05CLOVRD	242519	05CLOVRD	16	345/500	205/205	Light Load N-1	Included

## New Flowgates

None

## Financial Information

Capital spend start date	01/2024
Construction start date	02/2026
Project Duration (In Months)	33

**Additional Comments**

None