Fremont Breaker and Bloom Road Cap Bank Installation

General Information

Proposing entity name	AEPSCT
Company proposal ID	AEP_E
PJM Proposal ID	503
Project title	Fremont Breaker and Bloom Road Cap Bank Installation
Project description	AEP proposed to install a 138 kV circuit breaker at Fremont station on line towards Fremont Center and install a 9.6 MVAR 69 kV capacitor bank at Bloom Road station. No branch ratings changes as a result of this project.
Project in-service date	06/2025
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	

Project Components

1. Fremont Station Breaker Installation
2. Bloom Road Capacitor Bank Install

Substation Upgrade Component

Component title	Fremont Station Breaker Installation
Substation name	Fremont Station
Substation zone	205 - AEP

Substation upgrade scope	This scope requires adding a new line deadend structure with a 138 kV circuit breaker and new disconnect switches mounted below on the line towards Fremont Center. New line relaying potentials will be installed also.

Transformer Information

None

New equipment description	Qty. 1 – 138KV, 3000A, 40kA circuit breaker Qty. 2 – 138kV, 3000A disconnect switches Qty. 3 – 138kV CCVT
Substation assumptions	All necessary outages will be available The station fence is at least 50 feet from existing 138KV dead-end take-off structure to provide enough space for adding new 138KV dead-end take-off structure without affecting drive-path.
Real-estate description	N/A
Construction responsibility	AEP
Additional 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	$1,097,605.30
Component cost (in-service year)	$.00

Substation Upgrade Component

Component title	Bloom Road Capacitor Bank Install
Substation name	Bloom Road
Substation zone	205 - AEP
Substation upgrade scope	Install a 69 kV capacitor bank and switcher at Bloom Road station

Transformer Information

None

New equipment description	Qty 1 - 9.6 MVAR 69 kV capacitor bank Qty 1 - 69 kV, 3000A, 40kA circuit Switcher
Substation assumptions	All necessary outages available.
Real-estate description	Small station expansion required to fit cap bank and switcher. Land is AEP owned, so no additional acquisition is required.
Construction responsibility	AEP
Additional 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	$660,000.00
Component cost (in-service year)	$.00

Congestion Drivers

None

Existing Flowgates

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type
AEP-T168	245625	05MAPLE GR	245628	05RIVERVIE	1	69	205	FERC 715 Thermal
AEP-T169	245623	05HOLRAN	245625	05MAPLE GR	1	69	205	FERC 715 Thermal
AEP-T170	245614	05FREMNT C	245623	05HOLRAN	1	69	205	FERC 715 Thermal

New Flowgates

None

Financial Information

Capital spend start date	09/2023
Construction start date	02/2025
Project Duration (In Months)	21

Additional comments

None