

Lancaster Area Switching Improvements

General Information

Proposing entity name	AEPSCT
Company proposal ID	AEP_G
PJM Proposal ID	628
Project title	Lancaster Area Switching Improvements
Project description	At South Lancaster station, AEP is proposing to install a high side 138 kV circuit breaker and a low side 69 kV circuit breaker on 138/69 kV transformer #2 and to close the Baltimore 69 kV normally open circuit breaker "E". No ratings changes to existing branches as a result of the proposed work.
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	[REDACTED]

Project Components

1. South Lancaster Breaker Install
2. Baltimore Station Breaker Normal Operation Change

Substation Upgrade Component

Component title	South Lancaster Breaker Install
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Substation name	South Lancaster
Substation zone	205 - AEP
Substation upgrade scope	Install high side and low side circuit breakers on Transformer #2

Transformer Information

None	
New equipment description	1 - 138kV, 3000A, 40kA Circuit breaker 2 - 138kV, 2000A, 100KA disconnect switches 1 - 69kV, 3000A, 40kA circuit breaker 2 - 69kV, 2000A, 100kA disconnect switches
Substation assumptions	<ul style="list-style-type: none"> • The AC/DC system is sized so this breaker addition will not require a larger station battery and charger and ultimately station service. As well as there will be adequate spots in the AC panel for this new breaker. • PCE can utilize the existing bus CCVT's on the 69kV and 138kV sides of the transformer. • T2 tertiary structure has the capability to add fuses and PT's to the back side and mount the cabinet either on the front or side. There is a fuse cutout current mounted on the structure backside that seems to not be connected to anything. • Plan to reuse the existing line CCVT foundation for the new breaker switch foundation. The foundation can use a bolt conversion or custom steel and is in good enough shape. • Existing CCVT structure to be reused for new 3 winding CCVT's
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	\$1,369,842.10
Component cost (in-service year)	\$.00

Substation Upgrade Component

Component title	Baltimore Station Breaker Normal Operation Change
Substation name	Baltimore
Substation zone	205 - AEP
Substation upgrade scope	Configure circuit breaker E at Baltimore station to operate in a normally closed position. It is currently operated in a normally open position. To close CB-E at Baltimore, line and breaker control relays settings at Baltimore and remote end of East Lancaster needs to be review and re-issued accordingly.

Transformer Information

None	
New equipment description	This change requires relay settings to be updated. No new equipment is needed.
Substation assumptions	N/A
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	\$96,099.30
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-T376	245577	05E.LANCASTZ	245581	05LANCASTE	1	69	205	FERC 715 Thermal
AEP-T377	245577	05E.LANCASTZ	245581	05LANCASTE	1	69	205	FERC 715 Thermal
AEP-T384	245581	05LANCASTE	245591	05S.LANCAST1	1	69	205	FERC 715 Thermal
AEP-T385	245581	05LANCASTE	245591	05S.LANCAST1	1	69	205	FERC 715 Thermal
AEP-T388	245587	05RALSTON	245828	05LANCAS JTZ	1	69	205	FERC 715 Thermal
AEP-T389	245587	05RALSTON	245828	05LANCAS JTZ	1	69	205	FERC 715 Thermal

New Flowgates

None

Financial Information

Capital spend start date	09/2023
Construction start date	09/2024

Project Duration (In Months)

21

Additional comments

None