Maliszewski Series Reactor Upgrades

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_L
PJM Proposal ID	863
Project title	Maliszewski Series Reactor Upgrades
Project description	Proposal will replace the existing 138 kV series reactor at Maliszewski station with a 4% reactor with a higher continuous current rating. In addition, the proposal will upgrade limiting station equipment on the reactor bypass.
Email	wrburkett@aep.com
Project in-service date	05/2028
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	

Project Components

1. Maliszewski 138 kV Station Work

Substation Upgrade Component

Component title	Maliszewski 138 kV Station Work

Project description	At Maliszewski station, replace the existing 2% 138 kV series reactor with a larger 4% reactor with a higher continuous current rating. Additionally, bus work will be upgraded on the reactor bypass at the station.
Substation name	Maliszewksi
Substation zone	205
Substation upgrade scope	Upgrade 2-2156 KCM ACSR (84/19) & 5” Aluminum IPS Sch. 40 station conductor on reactor & reactor bypass. Upgrade existing 2% air-core reactor to a 4%.

Transformer Information

None

New equipment description	o Install 3 phase set of 4000A 4% reactors. Along with associated grounding 928/928/956/928/928/956 MVA o Install 3 new reactor slabs o Install (6) four bundle 1272 MCM Al. jumpers on low side of new reactors 1171/1325/1365/1481/1576/1624 MVA o Install ~500ft 5” sch. 80 Al. tubing along with 20 bus support connectors, internal dampening cable, ~70ft 3” sch. 40 Al. tubing, associated end bus fittings.
Substation assumptions	Existing reactor foundations will need to be removed. New reactors will be similar size and will be able to fit in location of existing reactors without moving neighboring structures. Only bus tubing North of 4000A disconnects needs to be replaced. Insulators will be reused, but all bus support connectors associated with bus replacement will need replaced as well. Triple bundle 2000 MCM Al. conductor can and will be reused.
Real-estate description	N/A. All work will be performed within the existing station footprint.
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	$2,328,196.62
Component cost (in-service year)	$2,328,196.62

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-N11-ST39	243513	05GENOA	243590	05WESTAR	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N11-ST16	243537	05MALIS	243538	05MALISX	ZB	138	205	Summer N-1-1 Thermal	Excluded
2024W1-N11-ST15	243537	05MALIS	243553	05POLARS	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N11-ST33	243513	05GENOA	243590	05WESTAR	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N11-ST21	243537	05MALIS	243553	05POLARS	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N11-ST20	243537	05MALIS	243553	05POLARS	1	138	205	Summer N-1-1 Thermal	Included
2024W1-N11-ST4	243537	05MALIS	243538	05MALISX	ZB	138	205	Summer N-1-1 Thermal	Excluded
2024W1-N11-ST3	243537	05MALIS	243538	05MALISX	ZB	138	205	Summer N-1-1 Thermal	Excluded
2024W1-N11-ST13	243537	05MALIS	243553	05POLARS	1	138	205	Summer N-1-1 Thermal	Included
2024W1-GD-S450	243538	05MALISX	243537	05MALIS	ZB	138	205	Summer Gen Deliv	Excluded
2024W1-GD-S92	243538	05MALISX	243537	05MALIS	ZB	138	205	Summer Gen Deliv	Excluded

New Flowgates

None

Financial Information

Capital spend start date	01/2025
Construction start date	11/2027
Project Duration (In Months)	40

Additional Comments

None