

# RP Mone-Maddox Creek Rebuild

## 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_D
PJM Proposal ID	957
Project title	RP Mone-Maddox Creek Rebuild
Project description	Project will rebuild the 9.4 mile 345 kV line between RP Mone and Maddox Creek stations.
Email	nckoebler@aep.com
Project in-service date	06/2027
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	Project will address 9+ miles of Paper Expanded (PE) conductor that have become an asset renewal concern for AEP across our footprint. AEP has concerns of increased core corrosion on PE conductors based upon review of conductor samples following storm recovery events. AEP shared additional details on the PE conductor concerns with stakeholders during the May 9th 2023 TEAC meeting. Additionally all but one of the existing structures on the line was originally installed in 1955. This project will replace the structures that would be over 70 years old by the time the work is complete.

## Project Components

1. RP Mone-Maddox Creek 345 kV Reconductor

## Transmission Line Upgrade Component

Component title	RP Mone-Maddox Creek 345 kV Reconductor
Project description	Rebuild 345 kV line between RP Mone and Maddox Creek stations (9.4 miles).
Impacted transmission line	RP Mone-Maddox Creek 345 kV
Point A	RP Mone
Point B	Maddox Creek
Point C	
Terrain description	Flat and rural terrain.

### Existing Line Physical Characteristics

Operating voltage	345
Conductor size and type	1-1275 ACSR/PE
Hardware plan description	All hardware to be replaced
Tower line characteristics	Existing structures are type SJ1 lattice tower, vintage 1955, single circuit, alternating phases on both sides of the tower.

### Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	345.000000	345.000000
	Normal ratings	Emergency ratings
Summer (MVA)	1676.000000	1868.000000
Winter (MVA)	2022.000000	2219.000000
Conductor size and type	2-1590 KCM 54/19 FALCON ACSR	
Shield wire size and type	GUINEA 159 ACSR 12/7	

Rebuild line length	9.4 miles
Rebuild portion description	The full 9.4 miles of the line will be rebuild using T4SDA and T4VDA towers to meet structural, clearance, and galloping criteria. 2-1590 KCM 54/19 FALCON ACSR conductor will be used to meet component target ratings.
Right of way	No new ROW is needed. Existing ROW right will be used and supplemented if/as needed.
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	\$39,033,568.40
Component cost (in-service year)	\$39,033,568.40

**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
2023W2-GD-W58	242933	05RPMONE	246929	05MADDOX	1	345	205	Winter Gen Deliv	Included
2023W2-GD-W21	242933	05RPMONE	246929	05MADDOX	1	345	205	Winter Gen Deliv	Included
2023W2-GD-S142	242933	05RPMONE	246929	05MADDOX	1	345	205	Summer Gen Deliv	Included
2023W2-GD-S170	242933	05RPMONE	246929	05MADDOX	1	345	205	Summer Gen Deliv	Included

## New Flowgates

None

## Financial Information

Capital spend start date 06/2024

Construction start date 06/2026

Project Duration (In Months) 36

## Additional Comments

None