

# East Lima Phase Shifting Transformer

## 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_K
PJM Proposal ID	11
Project title	East Lima Phase Shifting Transformer
Project description	Project will install 345 kV Phase Shifting Transformer at East Lima station on line towards Fostoria Central.
Email	nckoebler@aep.com
Project in-service date	06/2029
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	

## Project Components

1. East Lima Phase Shifting Transformer

### Substation Upgrade Component

Component title	East Lima Phase Shifting Transformer
Project description	Install 345 kV Phase Shifting Transformer at East Lima station on line towards Fostoria Central.

Substation name	East Lima
Substation zone	205 - AEP
Substation upgrade scope	Install one 345kV 1200 MVA 25% (dynamic) Phase shifting Transformer, two 345kV 3000A 50kA breakers, four 345kV 5000A 100kA switches, and a 345kV 5000A 100kA MOAB switch on the existing East Lima - Fostoria Central 345kV line. One of the breakers will be a bypass circuit breaker for the PST.

**Transformer Information**

	<b>Name</b>	<b>Capacity (MVA)</b>		
Transformer	1	1200		
	<b>High Side</b>	<b>Low Side</b>	<b>Tertiary</b>	
Voltage (kV)	345	345		
New equipment description	345kV 1200 MVA 25 % (dynamic) Phase Shifting transformer: 1200/1500/1545/1500/1800/1854 MVA (SN/SE/LD1/WN/WE/LD2) 345kV 3000A 50kA breakers: 1868/1868/1925/2315/2315/2385 MVA (SN/SE/LD1/WN/WE/LD2) 345kV 5000A 100kA switches: 3426/3759/3872/4448/4722/4864 MVA (SN/SE/LD1/WN/WE/LD2) 345kV 5000A 100kA MOAB switch: 3426/3759/3872/4448/4722/4864 MVA (SN/SE/LD1/WN/WE/LD2)			
Substation assumptions	Project scope is generated with the assumption that the current control house provides sufficient space for panels. Expansion may be required following detailed scoping. The existing line protection relays will be used to protect the line. Project scope is generated with the assumption that the current control house's DC panels have sufficient space for the equipment to be installed. Additional DC circuits may be required following detailed scoping.			
Real-estate description	See attachments. No additional land is needed as work will be performed on property already owned by AEP as part of East Lima station.			
Construction responsibility	AEP			
Benefits/Comments				
<b>Component Cost Details - In Current Year \$</b>				
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	\$40,300,623.80
Component cost (in-service year)	\$40,300,623.80

## 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-W12	243211	05ALLEN	242933	05RPMONE	1	345	205	Winter Gen Deliv	Included
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-S14	2242933	05RPMONE	246929	05MADDOX	1	345	205	Summer Gen Deliv	Included
2023W2-GD-S17	0242933	05RPMONE	246929	05MADDOX	1	345	205	Summer Gen Deliv	Included

## New Flowgates

None

## Financial Information

Capital spend start date	06/2024
Construction start date	06/2028
Project Duration (In Months)	60

**Additional Comments**

None