

East Leipsic-Maroe 69kV Loop

General Information

Proposing entity name	COMPANY CONFIDENTIAL INFORMATION
Company proposal ID	COMPANY CONFIDENTIAL INFORMATION
PJM Proposal ID	341
Project title	East Leipsic-Maroe 69kV Loop
Project description	Proposing Entity proposes to cut-in the Maroe – Holgate 69 kV line near First Energy’s Maroe 69 kV switch and build greenfield 10.4 miles double circuit 69 kV line to AEP’s East Leipsic 69 kV station using 556 ACSR 26/7 (Dove) conductors. Add two 69 kV, 3000A, 40 kA CB at East Leipsic to terminate the new lines. Replace existing 138/69 kV transformer T3 at East Leipsic with a new 130 MVA, 138/69 kV transformer and add a 69 kV, 3000A, 40 kA CB on the low side of this transformer. Replace existing cap bank at East Leipsic 138 kV with a 69.1 Mvar and add a capacitor switching circuit breaker. Proposed Ratings: 240868 to 245792: 80/96/90/114
Project in-service date	05/2025
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	COMPANY CONFIDENTIAL INFORMATION

Project Components

1. East Leipsic - Maroe S.S. 69kV Line
2. East Leipsic Station 69kV/138kV Upgrade

Greenfield Transmission Line Component

Component title	East Leipsic - Maroe S.S. 69kV Line
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Point A	East Leipsic	
Point B	Maroe	
Point C		
	Normal ratings	Emergency ratings
Summer (MVA)	856.000000	1190.000000
Winter (MVA)	1080.000000	1338.000000
Conductor size and type	556.5 KCM ACSR (26/7) "Dove"	
Nominal voltage	AC	
Nominal voltage	69kV	
Line construction type	Overhead	
General route description	Line is proposed to run along existing railroad and then along county road. See attached drawings.	
Terrain description	flat rural	

Right-of-way width by segment	<p>The new, greenfield East Leipsic - Maroe 69kV transmission line will require acquisition of approximately 13.35 miles of right-of-way, defined at 60' in width (30' on either side of centerline). The project will begin at Proposing Entity's (PE) existing East Leipsic Station, and will proceed in a general northern direction to a new station location within immediate proximity to First Energy's existing Maroe Station. Aside from anticipated labor associated with completing all necessary right-of-way acquisition support and non-environmental permitting work, no additional action is anticipated as part of this project at this time. The new proposed transmission line is located in Ohio. A review of the project footprint identifies that right-of-way will be required across approximately one hundred and twenty-one (121) parcels. An initial, high-level analysis found that there are two public parcels (owned by the Village of Leipsic) impacted by this project. Land use types within the project footprint are predominantly agricultural, with a small number of both residential and industrial properties, as identified through County online property information listings. For all right-of-way work contemplated, the PE strives to work collaboratively with landowners along each step of a project. The PE will utilize its proven land acquisition process in support of this project. This acquisition process has been successfully implemented on many PE projects in the past. PE's initial land acquisition step is to verify current ownership by an examination of title, current property tax status, as well as document any liens, and/or mortgages on each property. PE will also research the status of the subsurface estate, whether or not it is severed from the surface. Once ownership is established, PE negotiates with landowners for the necessary easements in order to support the project solution. Fair market value is the basis for pursuing any additional property rights. PE routinely relies on market data studies and appraisals, both for general geographic area and for specific, individual tracts. This market data research will be conducted to establish values and the basis for acquisition as part of this project solution. PE will pay for any crop damage and/or physical damage to property resulting from the construction and/or maintenance of the transmission line.</p>
Electrical transmission infrastructure crossings	Line crosses existing Proposing Entity's transmission lines exiting East Leipsic station.
Civil infrastructure/major waterway facility crossing plan	n/a
Environmental impacts	Environmental surveys were not completed during scoping. However, based on the geographical area, no major concerns are expected.
Tower characteristics	Steel double circuit monopoles
Construction responsibility	COMPANY CONFIDENTIAL INFORMATION
Additional comments	n/a
Component Cost Details - In Current Year \$	
Engineering & design	COMPANY CONFIDENTIAL INFORMATION
Permitting / routing / siting	COMPANY CONFIDENTIAL INFORMATION

ROW / land acquisition	COMPANY CONFIDENTIAL INFORMATION
Materials & equipment	COMPANY CONFIDENTIAL INFORMATION
Construction & commissioning	COMPANY CONFIDENTIAL INFORMATION
Construction management	COMPANY CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	COMPANY CONFIDENTIAL INFORMATION
Contingency	COMPANY CONFIDENTIAL INFORMATION
Total component cost	\$22,718,891.74
Component cost (in-service year)	\$.00

Substation Upgrade Component

Component title	East Leipsic Station 69kV/138kV Upgrade
Substation name	East Leipsic
Substation zone	205 - AEP
Substation upgrade scope	This scope involves expanding the existing 69kV portion of the yard to the south to allow for two new 69kV line exits. In the expansion area a new 69kV box bay will be installed along with 3 new 69kV circuit breakers. The 138kV yard will have replacements of the existing XF#3 and existing capacitor bank, these items will be replaced in place.

Transformer Information

None	
New equipment description	Qty. 1 – 138/69kV 130MVA transformer Qty. 3 – 69kV, 3000A, 40kA circuit breakers Qty. 8 – 69kV, 3000A disconnect switches Qty. 1 – 138kV 57.6MVAR capacitor bank Qty. 1 – 138kV 3000A, 40kA capacitor circuit breaker
Substation assumptions	Expansion area property is able to be obtained.
Real-estate description	n/a
Construction responsibility	COMPANY CONFIDENTIAL INFORMATION

Additional comments

n/a

Component Cost Details - In Current Year \$

Engineering & design

COMPANY CONFIDENTIAL INFORMATION

Permitting / routing / siting

COMPANY CONFIDENTIAL INFORMATION

ROW / land acquisition

COMPANY CONFIDENTIAL INFORMATION

Materials & equipment

COMPANY CONFIDENTIAL INFORMATION

Construction & commissioning

COMPANY CONFIDENTIAL INFORMATION

Construction management

COMPANY CONFIDENTIAL INFORMATION

Overheads & miscellaneous costs

COMPANY CONFIDENTIAL INFORMATION

Contingency

COMPANY CONFIDENTIAL INFORMATION

Total component cost

\$4,430,144.40

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-T63	245743	05E OTTAWA	245805	05LEIPSIC	1	69	205	FERC 715 Thermal
AEP-T64	245805	05LEIPSIC	245806	05DSCHLERT	1	69	205	FERC 715 Thermal
AEP-T65	245806	05DSCHLERT	245810	05NLEIP SW	1	69	205	FERC 715 Thermal
AEP-T66	245792	05E.LEIPSC	245810	05NLEIP SW	1	69	205	FERC 715 Thermal
AEP-T67	242993	05E.LEIPSIC2	245792	05E.LEIPSC	1	138/69	205	FERC 715 Thermal
AEP-T68	245757	05MCCOMB OP	245770	05NEW LIBR	1	35	205	FERC 715 Thermal
AEP-T69	245730	05CAIRO	245740	05E LIMA	1	69	205	FERC 715 Thermal

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type
AEP-T70	245743	05E OTTAWA	245805	05LEIPSIC	1	69	205	FERC 715 Thermal
AEP-T71	245743	05E OTTAWA	245805	05LEIPSIC	1	69	205	FERC 715 Thermal
AEP-T72	245743	05E OTTAWA	245805	05LEIPSIC	1	69	205	FERC 715 Thermal
AEP-T73	245743	05E OTTAWA	245805	05LEIPSIC	1	69	205	FERC 715 Thermal

New Flowgates

None

Financial Information

Capital spend start date 03/2021

Construction start date 09/2023

Project Duration (In Months) 50

Cost Containment Commitment

Cost cap (in current year) COMPANY CONFIDENTIAL INFORMATION

Cost cap (in-service year) COMPANY CONFIDENTIAL INFORMATION

Components covered by cost containment

1. East Leipsic - Maroe S.S. 69kV Line - Transource
2. East Leipsic Station 69kV/138kV Upgrade - AEP

Cost elements covered by cost containment

Engineering & design Yes

Permitting / routing / siting Yes

ROW / land acquisition Yes

Materials & equipment	Yes
Construction & commissioning	Yes
Construction management	Yes
Overheads & miscellaneous costs	Yes
Taxes	Yes
AFUDC	Yes
Escalation	Yes
Additional Information	Please see the cost commitment legal language upload document for further details. This cost containment legal language document is confidential and redacted from public view due to company confidential information.
Is the proposer offering a binding cap on ROE?	Yes
Would this ROE cap apply to the determination of AFUDC?	Yes
Would the proposer seek to increase the proposed ROE if FERC finds that a higher ROE would not be unreasonable?	No
Engineering & design	Yes
Permitting / routing / siting	Yes
ROW / land acquisition	Yes
Materials & equipment	Yes
Construction & commissioning	Yes
Construction management	Yes
Overheads & miscellaneous costs	Yes
Taxes	Yes
AFUDC	Yes

Escalation

Yes

Additional Information

COMPANY CONFIDENTIAL INFORMATION

Is the proposer offering a Debt to Equity Ratio cap?

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Additional comments

None