

# LS Rockford - LS West Van Wert 69kV Transmission Project

## General Information

Proposing entity name	CONFIDENTIAL
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	CONFIDENTIAL
Company proposal ID	CONFIDENTIAL
PJM Proposal ID	503
Project title	LS Rockford - LS West Van Wert 69kV Transmission Project
Project description	The LS Rockford - LS West Van Wert transmission project includes the construction of approximately 13 miles of new single circuit 69kV transmission line connecting the proposed LS Rockford Substation to the proposed LS West Van Wert Substation. The LS Rockford Substation will be a 3-position ring bus interconnecting the Rockford - Rockford Tap 69kV transmission line. The third position will be utilized by the LS Rockford - LS West Van Wert 69kV transmission Line. The LS West Van Wert Substation will be a 4-position ring bus with one position going to the new LS Rockford substation, two positions to interconnect the West Van Wert to Cavett transmission line, and the final position will be used to connect to the South Van Wert transmission line.
Email	CONFIDENTIAL
Project in-service date	05/2026
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	CONFIDENTIAL

## Project Components

1. LS Rockford - LS West Van Wert 69kV Transmission Line

- 2. LS Rockford 69kV Substation
- 3. LS West Van Wert 69kV Substation
- 4. LS Rockford 69kV Transmission Interconnection
- 5. LS West Van Wert 69kV Transmission Interconnection

### Greenfield Transmission Line Component

Component title LS Rockford - LS West Van Wert 69kV Transmission Line

Project description CONFIDENTIAL

Point A LS Rockford

Point B LS West Van Wert

Point C

	Normal ratings	Emergency ratings
Summer (MVA)	95.000000	118.000000
Winter (MVA)	95.000000	118.000000
Conductor size and type	336 "Oriole" ACSS TW	
Nominal voltage	AC	
Nominal voltage	69	
Line construction type	Overhead	

General route description See Routing Map attachment for information on the general project route. Most high-voltage transmission projects will require a state siting approval. To begin the siting approval process, Proposer plans to hold pre-application meetings with the regulatory agency to introduce Proposer and the Project, as well as confirm its understanding of the process. Shortly thereafter, Proposer will simultaneously begin collecting siting data and start its outreach efforts so that public siting input is incorporated at the earliest stages of the Project. Once the Proposer identifies a preferred site/route and at least one viable alternative site/route, Proposer will carry out the environmental and detailed engineering work described in the Site Selection/ Routing Analysis section above in order to establish a highly- detailed Project plan to support the siting applications.

Terrain description	The terrain traversed by the project features farmland with some lightly forested areas.
Right-of-way width by segment	The project proposes to utilize a right-of-way width of 50 feet.
Electrical transmission infrastructure crossings	Electrical infrastructure crossings may be required depending on final line route. This will be coordinated during the detailed design process with the interconnection PTO.
Civil infrastructure/major waterway facility crossing plan	No civil infrastructure or major waterway crossings.
Environmental impacts	The proposed Project was sited to avoid and minimize impacts to wetlands or other areas of environmental concern based on GIS data. It is possible that the Project cannot avoid impacts to a limited number of wetlands and waterways. If so, Proposer expects the Project will be subject to regulation under certain permitting programs, namely Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 401 of the Clean Water Act. Proposer will engage a qualified consultant to conduct a wetlands delineation of the selected site/route in order to establish the extent of proposed impacts and the need for specific permits from the state or U.S. Army Corps of Engineers. In addition to the permits described above, Proposer has identified other permits which may be required for the construction of the Project. Proposer considers these permits to be minor due to the more limited effort to prepare applications and the less intensive permitting processes which follow. These include permits related to airspace clearance, stormwater/erosion and sedimentation control, road crossings, and utility and railroad crossings.
Tower characteristics	The preliminary design for the transmission line utilizes wood monopole structures with single circuit, 336 "Oriole" ACSS TW in a delta configuration and a single optical groundwire.
Construction responsibility	CONFIDENTIAL
Benefits/Comments	CONFIDENTIAL
<b>Component Cost Details - In Current Year \$</b>	
Engineering & design	CONFIDENTIAL
Permitting / routing / siting	CONFIDENTIAL
ROW / land acquisition	CONFIDENTIAL
Materials & equipment	CONFIDENTIAL
Construction & commissioning	CONFIDENTIAL
Construction management	CONFIDENTIAL

Overheads & miscellaneous costs	CONFIDENTIAL
Contingency	CONFIDENTIAL
Total component cost	\$7,200,357.00
Component cost (in-service year)	\$8,138,304.00

### Greenfield Substation Component

Component title	LS Rockford 69kV Substation
Project description	CONFIDENTIAL
Substation name	LS Rockford
Substation description	The proposed new LS Rockford 69kV substation will be a three-position ring bus that will interconnect the existing Rockford to Rockford Tap 69kV transmission line. The third position will connect to the new LS Rockford - LS West Van Wert 69kV transmission line.
Nominal voltage	AC
Nominal voltage	69

### Transformer Information

None		
Major equipment description	69kV Circuit Breakers (3): 2000A continuous current rating 69kV Circuit Breaker Isolation Disconnect Switches & associated jumper assemblies: 2000A continuous current rating, 239 MVA rating, and a short circuit current rating of 26kA.	
	<b>Normal ratings</b>	<b>Emergency ratings</b>
Summer (MVA)	239.000000	239.000000
Winter (MVA)	239.000000	239.000000

Environmental assessment	<p>The proposed Project was sited to avoid and minimize impacts to wetlands or other areas of environmental concern based on GIS data. It is possible that the Project cannot avoid impacts to a limited number of wetlands and waterways. If so, Proposer expects the Project will be subject to regulation under certain permitting programs, namely Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 401 of the Clean Water Act. Proposer will engage a qualified consultant to conduct a wetlands delineation of the selected site/route in order to establish the extent of proposed impacts and the need for specific permits from the state or U.S. Army Corps of Engineers. In addition to the permits described above, Proposer has identified other permits which may be required for the construction of the Project. Proposer considers these permits to be minor due to the more limited effort to prepare applications and the less intensive permitting processes which follow. These include permits related to airspace clearance, stormwater/erosion and sedimentation control, road crossings, and utility and railroad crossings.</p>
Outreach plan	<p>Proposer will identify and engage stakeholders, such as community officials and landowners within the Project area, early in the process and maintain an active dialogue throughout. Public meetings may be held to offer a venue for landowners and other interested community members to learn about the Project and for Proposer to learn more about specific landowner and community preferences. Proposer plans to make information available on its website and provide notification of public meetings to landowners within the Project area as required in the siting approval process.</p>
Land acquisition plan	<p>The Project will be located primarily on new right-of-way to be purchased by Proposer. In addition, Proposer will procure any necessary easements required to access the site. Proposer will assign a Right-of-Way Manager to oversee all real estate related activities for the Project including appraisals, title work, surveying, land acquisition and restoration. A right-of-way agent will contact the property owner(s) in person to explain the Project and, as necessary, secure permission to conduct surveys, archaeological studies, etc. The right-of-way agent will be the primary point of contact to negotiate with the property owner to acquire the substation site and any required easements on a mutually agreeable basis. To the extent that negotiations reach an impasse, Proposer will be able to pursue eminent domain. The right-of-way agents will continue to act as a liaison with the property owners during construction and through the restoration process.</p>
Construction responsibility	CONFIDENTIAL
Benefits/Comments	CONFIDENTIAL
<b>Component Cost Details - In Current Year \$</b>	
Engineering & design	CONFIDENTIAL
Permitting / routing / siting	CONFIDENTIAL
ROW / land acquisition	CONFIDENTIAL
Materials & equipment	CONFIDENTIAL

Construction & commissioning	CONFIDENTIAL
Construction management	CONFIDENTIAL
Overheads & miscellaneous costs	CONFIDENTIAL
Contingency	CONFIDENTIAL
Total component cost	\$2,955,145.00
Component cost (in-service year)	\$3,344,433.00

### Greenfield Substation Component

Component title	LS West Van Wert 69kV Substation
Project description	CONFIDENTIAL
Substation name	LS West Van Wert
Substation description	The proposed new LS West Van Wert 69kV substation will be a four-position ring bus that will interconnect the Cavett - West Van Wert - South Van Wert 69kV Transmission Line. The fourth position will connect to the new LS Rockford - LS West Van Wert 69kV transmission line.
Nominal voltage	AC
Nominal voltage	69

### Transformer Information

None

Major equipment description 69kV Circuit Breakers (4): 2000A continuous current rating 69kV Circuit Breaker Isolation Disconnect Switches & associated jumper assemblies: 2000A continuous current rating, 239 MVA rating, and a short circuit current rating of 26kA.

	<b>Normal ratings</b>	<b>Emergency ratings</b>
Summer (MVA)	239.000000	239.000000
Winter (MVA)	239.000000	239.000000

Environmental assessment	<p>The proposed Project was sited to avoid and minimize impacts to wetlands or other areas of environmental concern based on GIS data. It is possible that the Project cannot avoid impacts to a limited number of wetlands and waterways. If so, Proposer expects the Project will be subject to regulation under certain permitting programs, namely Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 401 of the Clean Water Act. Proposer will engage a qualified consultant to conduct a wetlands delineation of the selected site/route in order to establish the extent of proposed impacts and the need for specific permits from the state or U.S. Army Corps of Engineers. In addition to the permits described above, Proposer has identified other permits which may be required for the construction of the Project. Proposer considers these permits to be minor due to the more limited effort to prepare applications and the less intensive permitting processes which follow. These include permits related to airspace clearance, stormwater/erosion and sedimentation control, road crossings, and utility and railroad crossings.</p>
Outreach plan	<p>Proposer will identify and engage stakeholders, such as community officials and landowners within the Project area, early in the process and maintain an active dialogue throughout. Public meetings may be held to offer a venue for landowners and other interested community members to learn about the Project and for Proposer to learn more about specific landowner and community preferences. Proposer plans to make information available on its website and provide notification of public meetings to landowners within the Project area as required in the siting approval process.</p>
Land acquisition plan	<p>The Project will be located primarily on new right-of-way to be purchased by Proposer. In addition, Proposer will procure any necessary easements required to access the site. Proposer will assign a Right-of-Way Manager to oversee all real estate related activities for the Project including appraisals, title work, surveying, land acquisition and restoration. A right-of-way agent will contact the property owner(s) in person to explain the Project and, as necessary, secure permission to conduct surveys, archaeological studies, etc. The right-of-way agent will be the primary point of contact to negotiate with the property owner to acquire the substation site and any required easements on a mutually agreeable basis. To the extent that negotiations reach an impasse, Proposer will be able to pursue eminent domain. The right-of-way agents will continue to act as a liaison with the property owners during construction and through the restoration process.</p>
Construction responsibility	CONFIDENTIAL
Benefits/Comments	CONFIDENTIAL
<b>Component Cost Details - In Current Year \$</b>	
Engineering & design	CONFIDENTIAL
Permitting / routing / siting	CONFIDENTIAL
ROW / land acquisition	CONFIDENTIAL
Materials & equipment	CONFIDENTIAL

Construction & commissioning	CONFIDENTIAL
Construction management	CONFIDENTIAL
Overheads & miscellaneous costs	CONFIDENTIAL
Contingency	CONFIDENTIAL
Total component cost	\$3,655,566.00
Component cost (in-service year)	\$4,137,122.00

**Transmission Line Upgrade Component**

Component title	LS Rockford 69kV Transmission Interconnection
Project description	CONFIDENTIAL
Impacted transmission line	Rockford - Rockford Tap
Point A	Rockford
Point B	Rockford Tap
Point C	
Terrain description	The terrain description is farmland.

**Existing Line Physical Characteristics**

Operating voltage	69
Conductor size and type	N/A
Hardware plan description	N/A
Tower line characteristics	N/A

**Proposed Line Characteristics**

	<b>Designed</b>	<b>Operating</b>
Voltage (kV)	69.000000	69.000000



	<b>Normal ratings</b>	<b>Emergency ratings</b>
Summer (MVA)	80.000000	98.000000
Winter (MVA)	80.000000	98.000000
Conductor size and type	N/A	
Shield wire size and type	N/A	
Rebuild line length	<0.25 miles	
Rebuild portion description	The existing line will be broken and new deadend towers installed to facilitate looping into the new LS Rockford 69kV Substation.	
Right of way	The existing right-of-way will be reused to facilitate the transmission interconnection facilities necessary to loop the lines into the new substation.	
Construction responsibility	CONFIDENTIAL	
Benefits/Comments	CONFIDENTIAL	
<b>Component Cost Details - In Current Year \$</b>		
Engineering & design	CONFIDENTIAL	
Permitting / routing / siting	CONFIDENTIAL	
ROW / land acquisition	CONFIDENTIAL	
Materials & equipment	CONFIDENTIAL	
Construction & commissioning	CONFIDENTIAL	
Construction management	CONFIDENTIAL	
Overheads & miscellaneous costs	CONFIDENTIAL	
Contingency	CONFIDENTIAL	
Total component cost	\$172,499.00	
Component cost (in-service year)	\$196,468.00	

## Transmission Line Upgrade Component

Component title	LS West Van Wert 69kV Transmission Interconnection
Project description	CONFIDENTIAL
Impacted transmission line	Cavett - West Van Wert - South Van Wert
Point A	Cavett
Point B	West Van Wert
Point C	South Van Wert
Terrain description	The terrain description is farmland.

### Existing Line Physical Characteristics

Operating voltage	69
Conductor size and type	N/A
Hardware plan description	N/A
Tower line characteristics	N/A

### Proposed Line Characteristics

	<b>Designed</b>	<b>Operating</b>
Voltage (kV)	69.000000	69.000000
	<b>Normal ratings</b>	<b>Emergency ratings</b>
Summer (MVA)	82.000000	93.000000
Winter (MVA)	82.000000	93.000000
Conductor size and type	N/A	
Shield wire size and type	N/A	

Rebuild line length	<0.25 miles
Rebuild portion description	The existing lines will be broken and new deadend towers installed to facilitate looping into the new LS West Van Wert 69kV Substation.
Right of way	The existing right-of-way and extents of the new LS West Van Wert substation will be used to facilitate the transmission interconnection facilities necessary to loop the lines into the new substation.
Construction responsibility	CONFIDENTIAL
Benefits/Comments	CONFIDENTIAL
<b>Component Cost Details - In Current Year \$</b>	
Engineering & design	CONFIDENTIAL
Permitting / routing / siting	CONFIDENTIAL
ROW / land acquisition	CONFIDENTIAL
Materials & equipment	CONFIDENTIAL
Construction & commissioning	CONFIDENTIAL
Construction management	CONFIDENTIAL
Overheads & miscellaneous costs	CONFIDENTIAL
Contingency	CONFIDENTIAL
Total component cost	\$431,250.00
Component cost (in-service year)	\$491,169.00

### **Congestion Drivers**

None

### **Existing Flowgates**

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
AEP -T51	243175	05N DELPHO	245902	05S DELPHO	1	69	205	FERC 715 Thermal	Included
AEP -T52	243175	05N DELPHO	245902	05S DELPHO	1	69	205	FERC 715 Thermal	Included
AEP -T53	245871	05DELPHOS	245902	05S DELPHO	1	69	205	FERC 715 Thermal	Included
AEP -T54	245871	05DELPHOS	245902	05S DELPHO	1	69	205	FERC 715 Thermal	Included
AEP -T15	243175	05N DELPHO	245874	05E DELPHO	1	69	205	FERC 715 Thermal	Included
AEP -T22	245874	05E DELPHO	247376	05ELIDA ROAD	1	69	205	FERC 715 Thermal	Included
AEP -T18	243175	05N DELPHO	245874	05E DELPHO	1	69	205	FERC 715 Thermal	Included
AEP -T20	243175	05N DELPHO	245874	05E DELPHO	1	69	205	FERC 715 Thermal	Included
AEP -T25	245874	05E DELPHO	247376	05ELIDA ROAD	1	69	205	FERC 715 Thermal	Included
AEP -T27	245874	05E DELPHO	247376	05ELIDA ROAD	1	69	205	FERC 715 Thermal	Included

## New Flowgates

CONFIDENTIAL

## Financial Information

Capital spend start date 03/2022

Construction start date 03/2024

Project Duration (In Months) 50

## Cost Containment Commitment

Cost cap (in current year) CONFIDENTIAL

Cost cap (in-service year) CONFIDENTIAL

## Components covered by cost containment

1. LS Rockford - LS West Van Wert 69kV Transmission Line - Proposer
2. LS Rockford 69kV Substation - Proposer

### 3. LS West Van Wert 69kV Substation - Proposer

#### **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	No
Additional Information	CONFIDENTIAL
Is the proposer offering a binding cap on ROE?	No
Is the proposer offering a Debt to Equity Ratio cap?	CONFIDENTIAL

#### **Additional Comments**

None