Persia - Elimsport 230kV 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	560
Project title	Persia - Elimsport 230kV Transmission Project
Project description	The Persia - Elimsport 230kV Transmission Project will include a new 3-position ring bus interconnecting the Dale - Milesburg 230kV transmission line. The proposed project will include a 230kV transmission line to connect the new substation with a new line position at the existing Elimsport 230kV Substation.
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. Persia - Elimsport 230kV Transmission Line
2. Persia 230kV Substation
3. Elimsport 230kV Substation Upgrade
4. Persia 230kV Transmission Interconnection

Greenfield Transmission Line Component

Component title	Persia - Elimsport 230kV Transmission Line	
Project description	CONFIDENTIAL	
Point A	Persia	
Point B	Elimsport	
Point C		
	Normal ratings	**Emergency ratings**
Summer (MVA)	1047.000000	1047.000000
Winter (MVA)	1160.000000	1160.000000
Conductor size and type	Double Bundle 795 "Drake" ACSS	
Nominal voltage	AC	
Nominal voltage	230	
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 heavily forested areas.	
Right-of-way width by segment	The project proposes a right-of-way width of 125 feet.	

Electrical transmission infrastructure crossings	Electrical infrastructure crossings may be required depending on final line route and substation configuration at Elimsport. 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 steel monopole structures with single circuit, double bundle 795 "Drake" ACSS conductor in a delta configuration and a single optical groundwire.
Construction responsibility	CONFIDENTIAL
Benefits/Comments	CONFIDENTIAL
Component Cost Details - In Current Year $	
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	$126,984,126.00
Component cost (in-service year)	$143,525,574.00

Greenfield Substation Component

Component title	Persia 230kV Substation
Project description	CONFIDENTIAL
Substation name	Persia
Substation description	The proposed Persia 230kV substation will be a 3-position ring bus that will interconnect the Dale - Milesburg 230kV transmission line. The third position will connect to the new Persia - Elimsport 230kV transmission line.
Nominal voltage	AC
Nominal voltage	230

Transformer Information

None

Major equipment description: 230kV Circuit Breakers (3): 4000A continuous current rating 230kV Circuit Breaker Isolation Disconnect Switches & associated jumper assemblies: 4000A continuous current rating, 1593 MVA rating, and a short circuit current rating of 63kA.

	Normal ratings	**Emergency ratings**
Summer (MVA)	1593.000000	1593.000000
Winter (MVA)	1593.000000	1593.000000

Environmental assessment	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.
Outreach plan	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.
Land acquisition plan	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.
Construction responsibility	CONFIDENTIAL
Benefits/Comments	CONFIDENTIAL
Component Cost Details - In Current Year $	
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	$6,342,682.00
Component cost (in-service year)	$7,178,219.00

Substation Upgrade Component

Component title	Elimsport 230kV Substation Upgrade
Project description	CONFIDENTIAL
Substation name	Elimsport 230kV Substation
Substation zone	236
Substation upgrade scope	The substation scope will involve adding one (1) new 4000A, 230kV circuit breaker to create a new line position for the new Persia - Elimsport 230kV transmission line.

Transformer Information

None

New equipment description	230kV Circuit Breaker (1): 4000A continuous current rating 230kV Circuit Breaker Isolation Disconnect Switches & associated jumper assemblies: 4000A continuous current rating
Substation assumptions	It appears that the substations breaker and a half arrangement can be expanded to accommodate the new 230kV transmission line.
Real-estate description	The current substation extents should be able to accommodate the new transmission line position.
Construction responsibility	CONFIDENTIAL
Benefits/Comments	CONFIDENTIAL

Component Cost Details - In Current Year $

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	$1,531,393.00
Component cost (in-service year)	$1,732,257.00

Transmission Line Upgrade Component

Component title	Persia 230kV Transmission Interconnection
Project description	CONFIDENTIAL
Impacted transmission line	Dale - Milesburg
Point A	Dale
Point B	Milesburg
Point C	
Terrain description	The terrain description is mostly farmland with a few trees in the area.

Existing Line Physical Characteristics

Operating voltage	230
Conductor size and type	N/A
Hardware plan description	N/A

Tower line characteristics	N/A

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	230.000000	230.000000
	Normal ratings	**Emergency ratings**
Summer (MVA)	548.000000	740.000000
Winter (MVA)	548.000000	740.000000

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 Persia 230kV 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

Component Cost Details - In Current Year $

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	$690,000.00
Component cost (in-service year)	$785,870.00

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
APS-VD45	235248	01SHINGL	235248	01SHINGL	0	230	201	FERC 715 Voltage Drop	Included
APS-VD46	235248	01SHINGL	235248	01SHINGL	0	230	201	FERC 715 Voltage Drop	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. Persia - Elimsport 230kV Transmission Line - Proposer
2. Persia 230kV 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