Garrett Tap - Garrett 115 kV Line Rebuild

General Information

Proposing entity name	Confidential information.
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Confidential information.
Company proposal ID	Confidential information.
PJM Proposal ID	315
Project title	Garrett Tap - Garrett 115 kV Line Rebuild
Project description	Rebuild the Garrett Tap - Garrett 115 kV Line to increase the rating and eliminate the congestion on the system.
Email	Confidential information.
Project in-service date	06/2029
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	Confidential information.
Project Components	
1. Garrett - Garrett Tap 115 kV Line Upgrade	
2. Penn Mar- Deep Creek -Garrett 115 kV Line: Upgrade Relay Setting	js
Transmission Line Upgrade Component	
Component title	Garrett - Garrett Tap 115 kV Line Upgrade

Project description	Confidential information.				
Impacted transmission line	Garrett - Penn Mar - Deep Creek 115 kV Line (Garrett - Garrett Tap 115 kV)				
Point A	Garrett Substation				
Point B	Penn Mar Substation				
Point C	Deep Creek Substation				
Terrain description	This line will be constructed on an existing right of way. The line primarily crosses rolling hills and farm fields, with one portion traversing through a forested area.				
Existing Line Physical Characteristics					
Operating voltage	115 kV				
Conductor size and type	336 ACSR 26/7				
Hardware plan description	The line is currently on FirstEnergy's end of life list. The line will be rebuilt. No equipment is expected to be reused.				
Tower line characteristics	The Garrett - Garrett Tap 115 kV Line section is composed of a mixture of 2, 3, and 4 pole wooden H frames installed in 1969. Making them 56 years old, nearing the end of their useful life. This line section is on FirstEnergy's End of Life list. Since 2021 there are 60 maintenance repair records on this line section (Structures 1-16). Forty-two have been closed, eighteen repairs have yet to be complete and are thus active. Maintenance repair causes are broken and lose components, rust and corrosion issues, rotten members, animal damage and infringement, and worn hardware and fixtures.				
Proposed Line Characteristics					
	Designed	Operating			
Voltage (kV)	115.000000	115.000000			
	Normal ratings	Emergency ratings			
Summer (MVA)	417.000000	480.000000			
Winter (MVA)	417.000000	506.000000			

Conductor size and type	954 ACSS 54/7
Shield wire size and type	(1) SFSJ-J-6641 OPGW and (1) 7#8 Alumoweld.
Rebuild line length	~1.9 miles
Rebuild portion description	~1.9 miles of line to be rebuilt. It is assumed line can be rebuilt on existing right of way with all new angle and deadend structures will be engineered steel poles on drilled shaft foundations and that all in-line tangent structures will be direct-embed wood pole equivalents. It is assumed the line will be rebuilt structure for structure on the existing centerline. It is also assumed the line will be rebuilt in the same horizontal configuration to limit structure height increases and maintain existing span lengths. It is assumed that new OPGW will be installed in the shield wire position. It is assumed the new switch structure will be engineered steel structures on drilled shaft foundations.
Right of way	FirstEnergy and its subsidiaries currently maintain the right-of-way for the entire length of the existing line, and FirstEnergy plans to reuse these rights. It is assumed that any renegotiations necessary, to migrate from exclusively wood poles to metal poles will not hinder or inhibit the project.
Construction responsibility	Confidential information.
Benefits/Comments	Confidential information.
Component Cost Details - In Current Year \$	
Engineering & design	Confidential information.
Permitting / routing / siting	Confidential information.
ROW / land acquisition	Confidential information.
Materials & equipment	Confidential information.
Construction & commissioning	Confidential information.
Construction management	Confidential information.
Overheads & miscellaneous costs	Confidential information.
Contingency	Confidential information.
Total component cost	\$9,016,308.00

Component cost (in-service year)	\$9,762,133.00					
Substation Upgrade Component						
Component title	Penn Mar- Deep Creek -Garrett 115 kV Line: Upgrade Relay Settings					
Project description	Confidential information.					
Substation name	Penn Mar, Garrett, and Deep Creek					
Substation zone	PENELEC					
Substation upgrade scope	Adjust the relay settings at Penn Mar, Garrett, and Deep Creek substations to accommodate the new ratings and impedance changes associates with the Garrett- Garrett Tap 115 kV Line rebuild.					
Transformer Information						
	Name	Capacity (MVA)				
Transformer	n/a	n/a				
	High Side	Low Side	Tertiary			
Voltage (kV)	n/a	n/a	n/a			
New equipment description	No new equipment is anticipated, relay settings adjustment only. Line is already equipped with new digital relays.					
Substation assumptions	Assume existing relays can be adjusted.					
Real-estate description	No real estate requirements associated with this portion.					
Construction responsibility	Confidential information.					
Benefits/Comments	Confidential information.					
Component Cost Details - In Current Year \$						
Engineering & design	Confidential information.					
Permitting / routing / siting	Confidential information.					

ROW / land acquisition	Confidential information.
Materials & equipment	Confidential information.
Construction & commissioning	Confidential information.
Construction management	Confidential information.
Overheads & miscellaneous costs	Confidential information.
Contingency	Confidential information.
Total component cost	\$134,664.00
Component cost (in-service year)	\$139,612.00
Congestion Drivers	

None

Existing Flowgates

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	СКТ	Voltage	TO Zone	Analysis type	Status
2025W1-ME3	200762	26GARRETT	235470	01GARRET	1	115	226/201	Market Efficiency	Included

New Flowgates

Confidential information.

Financial Information

Capital spend start date	07/2025
Construction start date	05/2028
Project Duration (In Months)	47

Additional Comments

Proposal is ready for submission. Please reach out if you have any questions or concerns.