

Siegfried - Drakestown 500 kV line (PA segment)

General Information

Proposing entity name	Proprietary Information
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Proprietary Information
Company proposal ID	Proprietary Information
PJM Proposal ID	290
Project title	Siegfried - Drakestown 500 kV line (PA segment)
Project description	Convert the entire Siegfried - Martins Creek 230 kV # 1 line to 500 kV operation, which it is already designed to accommodate. This ~ 24.5 mile line conversion would ultimately represent the Pennsylvania portion of the Siegfried - Drakestown 500 kV line when combined with proposal 2025-W1-552 to complete the 500 kV line to Drakestown in NJ. Add one new 500 kV 4,000 amp circuit breaker and two 500 kV 4,000 amp MODs.
Email	Proprietary Information
Project in-service date	05/2030
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	Proprietary Information

Project Components

1. Siegfried - Drakestown 500 kV line (Pennsylvania segment)
2. Siegfried 500 kV yard upgrade

Transmission Line Upgrade Component

Component title	Siegfried - Drakestown 500 kV line (Pennsylvania segment)	
Project description	Proprietary Information	
Impacted transmission line	Siegfried - Martins Creek 230 kV # 1 line	
Point A	Siegfried	
Point B	Martins Creek	
Point C		
Terrain description	Existing transmission line corridor, with existing 500 kV tower line operated at 230 kV. Line traverses farm fields from Siegfried to Martins Creek.	
Existing Line Physical Characteristics		
Operating voltage	230	
Conductor size and type	Double Bundle 2493 ACAR 54/37 conductor	
Hardware plan description	Developer intends to replace all hardware on segments of line that are converted to 500 kV with new hardware assemblies and 500 kV insulators.	
Tower line characteristics	Existing structures are composed of steel H-frame towers.	
Proposed Line Characteristics		
	Designed	Operating
Voltage (kV)	500.000000	500.000000
	Normal ratings	Emergency ratings
Summer (MVA)	2707.000000	3112.000000
Winter (MVA)	3207.000000	3566.000000
Conductor size and type	Double Bundle 2493 ACAR 54/37 conductor	

Shield wire size and type	Dual OPGW
Rebuild line length	24.5 miles (line conversion, already constructed at 500 kV design)
Rebuild portion description	24.5 miles (line conversion, already constructed at 500 kV design)
Right of way	The existing ROW will not be altered.
Construction responsibility	Proprietary Information
Benefits/Comments	Proprietary Information
Component Cost Details - In Current Year \$	
Engineering & design	Proprietary Information
Permitting / routing / siting	Proprietary Information
ROW / land acquisition	Proprietary Information
Materials & equipment	Proprietary Information
Construction & commissioning	Proprietary Information
Construction management	Proprietary Information
Overheads & miscellaneous costs	Proprietary Information
Contingency	Proprietary Information
Total component cost	\$75,682,740.17
Component cost (in-service year)	\$89,562,853.12
Substation Upgrade Component	
Component title	Siegfried 500 kV yard upgrade
Project description	Proprietary Information
Substation name	Siegfried 500 kV Switchyard
Substation zone	PPL EU

Substation upgrade scope	Add one new 500 kV 4,000 amp circuit breaker and two 500 kV 4,000 amp MODs.
Transformer Information	
None	
New equipment description	One 500 kV 4,000 amp circuit breaker Two 500 kV 4,000 amp MODs
Substation assumptions	Project can be accommodated within identified parcel for Siegfried 500 kV yard described in Proposal 2025-W1-199.
Real-estate description	No new real estate is required to accommodate this project.
Construction responsibility	Proprietary Information
Benefits/Comments	Proprietary Information
Component Cost Details - In Current Year \$	
Engineering & design	Proprietary Information
Permitting / routing / siting	Proprietary Information
ROW / land acquisition	Proprietary Information
Materials & equipment	Proprietary Information
Construction & commissioning	Proprietary Information
Construction management	Proprietary Information
Overheads & miscellaneous costs	Proprietary Information
Contingency	Proprietary Information
Total component cost	\$12,481,108.00
Component cost (in-service year)	\$14,770,126.45
Congestion Drivers	
None	

Existing Flowgates

None

New Flowgates

Proprietary Information

Financial Information

Capital spend start date	02/2026
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Construction start date	03/2028
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Project Duration (In Months)	51
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Cost Containment Commitment

Cost cap (in current year)	Proprietary Information
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Cost cap (in-service year)	Proprietary Information
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Components covered by cost containment

1. Siegfried - Drakestown 500 kV line (Pennsylvania segment) - PPL
2. Siegfried 500 kV yard upgrade - PPL

Cost elements covered by cost containment

Engineering & design	Yes
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Permitting / routing / siting	Yes
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ROW / land acquisition	Yes
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Materials & equipment	Yes
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Construction & commissioning	Yes
Construction management	Yes
Overheads & miscellaneous costs	Yes
Taxes	No
AFUDC	No
Escalation	Yes
Additional Information	Proprietary Information
Is the proposer offering a binding cap on ROE?	No
Is the proposer offering a Debt to Equity Ratio cap?	Proprietary Information
Additional Comments	
None	