Glen Brook - Susquehanna T10 - Susquehanna 230 kV 1 & 2 DCT line rebuild

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	190
Project title	Glen Brook - Susquehanna T10 - Susquehanna 230 kV 1 & 2 DCT line rebuild
Project description	Glen Brook - Susquehanna T10 - Susquehanna 230 kV 1 & 2 DCT line rebuild: On the Glen Brook - Susquehanna T10 1 & 2 (3.72 miles) lines, Supplemental Project s2373 has a scope that involves a line rebuild and reconductoring with double-bundle 1590 ACSS for 3.02 miles of the route. This project (2025-W1-190) scope involves reconducting the remaining 0.70 miles of the route with ACCC 1036/87/392 (2045 kcmil) conductor. On the Susquehanna T10 - Susquehanna 1 & 2 (2.66 miles) 230 kV DCT lines, rebuild towers and reconduct both circuits with ACCC 1036/87/392 (2045 kcmil) conductor throughout the full length of the route.
Email	Proprietary Information
Project in-service date	05/2030
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	Proprietary Information

Project Components

1. Glen Brook - Susquehanna T10 230 kV 1 & 2 DCT line rebuild
2. Susquehanna T10 - Susquehanna 230 kV 1 line rebuild

3. Susquehanna T10 - Susquehanna 230 kV # 2 line rebuild

4. Glen Brook 230/69 kV Substation MOD upgrades

Transmission Line Upgrade Component

Component title	Glen Brook - Susquehanna T10 230 kV 1 & 2 DCT line rebuild
Project description	Proprietary Information
Impacted transmission line	Glen Brook - Susquehanna T10 230 kV DCT line
Point A	Glen Brook
Point B	Susquehanna T10
Point C	
Terrain description	Existing transmission ROW with good access points to each structure recently installed as part of Glen Brook Substation project.
Existing Line Physical Characteristics	
Operating voltage	230
Conductor size and type	1590 ACSS 45/7 conductor
Hardware plan description	The existing hardware that supports the 1590 ACSR will be removed and replaced with new hardware to support the ACCC 1036/87/392 (2045 kcmil) conductor.
Tower line characteristics	The reconductor segment of line is composed of DCT 230 kV steel poles recently installed as part of the Glen Brook Substation project.

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	230.000000	230.000000
	Normal ratings	Emergency ratings
Summer (MVA)	1196.000000	1352.000000

Winter (MVA)	1269.000000	1425.000000
Conductor size and type	ACCC 1036/87/392 (2045 kcmil) conductor	
Shield wire size and type	OPGW	
Rebuild line length	No line rebuild is involved in this project component	
Rebuild portion description	For this project, 0.70 miles of the Glen Brook - Susquehanna T10 1 & 2 will be reconducted. No line rebuild is involved in this project component.	
Right of way	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	$2,628,081.53	
Component cost (in-service year)	$2,953,971.00	

Transmission Line Upgrade Component

Component title	Susquehanna T10 - Susquehanna 230 kV 1 line rebuild

Project description	Proprietary Information
Impacted transmission line	Susquehanna T10 - Susquehanna 230 kV # 1 line
Point A	Susquehanna T10
Point B	Susquehanna
Point C	
Terrain description	Existing cleared ROW. Mostly farmland. Transmission line congestion near Susquehanna nuclear facility.

Existing Line Physical Characteristics

Operating voltage	230
Conductor size and type	1590 ACSR 45/7 conductor
Hardware plan description	All the existing infrastructure will be removed and replaced with new hardware.
Tower line characteristics	Developer proposes new DCT 230 kV monopoles on concrete foundations.

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	230.000000	230.000000
	Normal ratings	Emergency ratings
Summer (MVA)	1196.000000	1352.000000
Winter (MVA)	1269.000000	1425.000000

Conductor size and type	ACCC 1036/87/392 (2045 kcmil) conductor
Shield wire size and type	OPGW
Rebuild line length	2.66 miles
Rebuild portion description	2.66 miles. Developer proposes new DCT 230 kV monopoles on concrete foundations.

Right of way	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	$18,116,239.69
Component cost (in-service year)	$20,362,704.13

Transmission Line Upgrade Component

Component title	Susquehanna T10 - Susquehanna 230 kV # 2 line rebuild
Project description	Proprietary Information
Impacted transmission line	Susquehanna T10 - Susquehanna 230 kV # 2 line
Point A	Susquehanna T10
Point B	Susquehanna
Point C	

Terrain description	Existing cleared ROW. Mostly farmland. Transmission line congestion near Susquehanna nuclear facility.
Existing Line Physical Characteristics	
Operating voltage	230
Conductor size and type	1590 ACSR 45/7 conductor
Hardware plan description	All the existing infrastructure will be removed and replaced with new hardware.
Tower line characteristics	Developer proposes new DCT 230 kV monopoles on concrete foundations.
Proposed Line Characteristics	

	Designed	Operating
Voltage (kV)	230.000000	230.000000
	Normal ratings	Emergency ratings
Summer (MVA)	1196.000000	1352.000000
Winter (MVA)	1269.000000	1425.000000

Conductor size and type	ACCC 1036/87/392 (2045 kcmil) conductor
Shield wire size and type	OPGW
Rebuild line length	2.66 miles
Rebuild portion description	2.66 miles. Developer proposes new DCT 230 kV monopoles on concrete foundations.
Right of way	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	$17,396,943.67
Component cost (in-service year)	$19,554,213.38

Substation Upgrade Component

Component title	Glen Brook 230/69 kV Substation MOD upgrades
Project description	Proprietary Information
Substation name	Glen Brook 230/69 kV Substation
Substation zone	PPL EU
Substation upgrade scope	At Glen Brook 230/69 kV Substation, replace ten 230 kV 2,000 amp MODs with 230 kV 3,000 amp MODs.

Transformer Information

None

New equipment description	Ten 230 kV 3,000 amp MODs
Substation assumptions	Replacement of existing equipment in kind with higher rated equipment.
Real-estate description	No new real estate is required for 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	$2,496,814.00
Component cost (in-service year)	$2,806,425.93

Congestion Drivers

None

Existing Flowgates

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-32GD-S40	207915	GLBR	208120	SU10	2	230	229	2032 Generation Deliverability	Included
2025W1-32GD-S41	207915	GLBR	208120	SU10	2	230	229	2032 Generation Deliverability	Included
2025W1-GD-S180	208120	SU10	208113	SUSQ	2	230	229	Generation Deliverability	Included
2025W1-N1-ST106	208120	SU10	208113	SUSQ	1	230/230	229/229	N-1 Thermal	Included
2025W1-GD-S464	208120	SU10	208113	SUSQ	1	230	229	Generation Deliverability	Included
2025W1-N1-ST105	208120	SU10	208113	SUSQ	2	230/230	229/229	N-1 Thermal	Included
2025W1-32GD-S47	207915	GLBR	208120	SU10	1	230	229	2032 Generation Deliverability	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-32GD-S81	208120	SU10	208113	SUSQ	2	230	229	2032 Generation Deliverability	Included
2025W1-GD-S168	207915	GLBR	208120	SU10	1	230	229	Generation Deliverability	Included
2025W1-N1-ST78	207915	GLBR	208120	SU10	1	230/230	229/229	N-1 Thermal	Included
2025W1-32GD-S53	207915	GLBR	208120	SU10	2	230	229	2032 Generation Deliverability	Included
2025W1-32GD-W4	208120	SU10	208113	SUSQ	1	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST77	207915	GLBR	208120	SU10	1	230/230	229/229	N-1 Thermal	Included
2025W1-32GD-S54	208120	SU10	208113	SUSQ	1	230	229	2032 Generation Deliverability	Included
2025W1-32GD-W3	208120	SU10	208113	SUSQ	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST76	207915	GLBR	208120	SU10	1	230/230	229/229	N-1 Thermal	Included
2025W1-32GD-S55	208120	SU10	208113	SUSQ	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST82	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	Included
2025W1-N1-ST81	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	Included
2025W1-N1-ST80	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	Included
2025W1-32GD-S52	207915	GLBR	208120	SU10	1	230	229	2032 Generation Deliverability	Included
2025W1-32GD-S39	207915	GLBR	208120	SU10	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST84	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	Included
2025W1-GD-S14	207915	GLBR	208120	SU10	2	230	229	Generation Deliverability	Included
2025W1-N1-ST83	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	Included
2025W1-GD-S13	207915	GLBR	208120	SU10	1	230	229	Generation Deliverability	Included
2025W1-GD-S164	207915	GLBR	208120	SU10	2	230	229	Generation Deliverability	Included
2025W1-GD-S162	207915	GLBR	208120	SU10	2	230	229	Generation Deliverability	Included
2025W1-N1-ST99	207915	GLBR	208120	SU10	1	230/230	229/229	N-1 Thermal	Included
2025W1-GD-S163	207915	GLBR	208120	SU10	2	230	229	Generation Deliverability	Included
2025W1-GD-S161	207915	GLBR	208120	SU10	1	230	229	Generation Deliverability	Included
2025W1-32GD-S38	207915	GLBR	208120	SU10	1	230	229	2032 Generation Deliverability	Included

New Flowgates

Proprietary Information

Financial Information

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

Cost Containment Commitment

Cost cap (in current year)	Proprietary Information
Cost cap (in-service year)	Proprietary Information

Components covered by cost containment

1. Glen Brook - Susquehanna T10 230 kV 1 & 2 DCT line rebuild - PPL
2. Susquehanna T10 - Susquehanna 230 kV 1 line rebuild - PPL
3. Susquehanna T10 - Susquehanna 230 kV # 2 line rebuild - PPL
4. Glen Brook 230/69 kV Substation MOD upgrades - PPL

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	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