Jenkins 230/69 kV Substation transformers re-termination

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	647
Project title	Jenkins 230/69 kV Substation transformers re-termination
Project description	At the Jenkins 230/69 kV Substation, re-terminate the Jenkins 230/69 kV T2 and T4 transformers into bay positions in the 69 kV and 230 kV yards respectively. Add one new 230 kV 3,000 amp circuit breaker, and two 230 kV 3,000 amp MODs to accommodate the re-termination of the T4 transformer into the east bay position in the existing 230 kV breaker and a half Bay 2. Add two new 69 kV 3,000 amp circuit breakers, and 4 69 kV 3,000 amp switches to accommodate the re-termination of the T2 transformer into a new 69 kV double-bus double-breaker Bay 4.
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. Jenkins 230/69 kV T2 and T4 transformer re-terminations
2. Jenkins T4 transformer lead line re-termination

Substation Upgrade Component

Component title	Jenkins 230/69 kV T2 and T4 transformer re-terminations
Project description	Proprietary Information
Substation name	Jenkins 230/69 kV Substation
Substation zone	PPL EU
Substation upgrade scope	At the Jenkins 230/69 kV Substation, re-terminate the Jenkins 230/69 kV T2 and T4 transformers into bay positions in the 69 kV and 230 kV yards respectively. Add one new 230 kV 3,000 amp circuit breaker, and two 230 kV 3,000 amp MODs to accommodate the re-termination of the T4 transformer into the east bay position in the existing 230 kV breaker and a half Bay 2. Add two new 69 kV 3,000 amp circuit breakers, and 4 69 kV 3,000 amp switches to accommodate the re-termination of the T2 transformer into a new 69 kV double-bus double-breaker Bay 4.

Transformer Information

None

New equipment description	One 230 kV 3,000 amp circuit breaker Two 230 kV 3,000 amp MODs One 69 kV double-bus double-breaker bay in the open Bay 4 area of the 69 kV yard Two 69 kV 3,000 amp circuit breakers Four 69 kV 3,000 amp switches
Substation assumptions	Developer completed conceptual design, and confirmed engineering parameters for proposed terminal connections. All work takes place within the existing substation perimeter.
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	$8,713,191.00
Component cost (in-service year)	$9,868,882.60

Transmission Line Upgrade Component

Component title	Jenkins T4 transformer lead line re-termination
Project description	Proprietary Information
Impacted transmission line	Jenkins T4 transformer lead line
Point A	Jenkins
Point B	Jenkins
Point C	
Terrain description	N/A
Existing Line Physical Characteristics	
Operating voltage	230
Conductor size and type	1590 ACSR 45/7 conductor
Hardware plan description	Developer proposes new 230 kV hardware and glass insulators for the transformer lead line connection.
Tower line characteristics	Developer proposes one single circuit 230 kV steel monopole on a concrete foundation.
Proposed Line Characteristics	

	Designed	Operating

Voltage (kV)	230.000000	230.000000
	Normal ratings	Emergency ratings
Summer (MVA)	217.000000	268.000000
Winter (MVA)	268.000000	268.000000
Conductor size and type	1590 ACSR 45/7 conductor	
Shield wire size and type	1/2 in steel	
Rebuild line length	N/A	
Rebuild portion description	N/A	
Right of way	Developer proposes all facilities to be located within substation perimeter.	
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	$1,456,482.64	
Component cost (in-service year)	$1,649,666.14	

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-N1-SVD45	211718	MINO 1	211718	MINO 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD67	211381	BECR NUG	211381	BECR NUG	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD66	211382	BECR TP1	211382	BECR TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD65	211392	BECR TP2	211392	BECR TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD34	211788	PIRI 2	211788	PIRI 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD33	211789	PIRI 1	211789	PIRI 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD32	211837	SCRA 1	211837	SCRA 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD54	211483	EMOU TP2	211483	EMOU TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD27	211986	WYVA 2	211986	WYVA 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD26	211987	WYVA TP2	211987	WYVA TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD48	211654	JENK	211654	JENK	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD25	211988	WYVA TP1	211988	WYVA TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD68	211380	BCRK	211380	BCRK	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD53	211537	GEOR 2	211537	GEOR 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD52	211538	GEOR 1	211538	GEOR 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD51	211541	GEOR TP2	211541	GEOR TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD28	211985	WYVA 1	211985	WYVA 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD50	211542	GEOR TP1	211542	GEOR TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD72	211373	AVOC TI2	211373	AVOC TI2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD56	211481	EMOU 1	211481	EMOU 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD55	211482	EMOU 2	211482	EMOU 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD99	210921	BECR DC	210921	BECR DC	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD24	211994	YATE 2	211994	YATE 2	N/A	69	229	N-1 Voltage Drop	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-N1-SVD23	211995	YATE 1	211995	YATE 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD44	211719	MINO 2	211719	MINO 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD43	211727	MTGE 2	211727	MTGE 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD38	211759	OWIL 2	211759	OWIL 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD60	211452	DUPO DC	211452	DUPO DC	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD37	211760	OWIL 1	211760	OWIL 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD59	211455	DUPO 1	211455	DUPO 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD36	211780	MUND 1	211780	MUND 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD58	211456	DUPO 2	211456	DUPO 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD35	211781	MUND 2	211781	MUND 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD57	211480	EMOU TP1	211480	EMOU TP1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD42	211728	MTGE 1	211728	MTGE 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD41	211752	AVOC TI1	211752	AVOC TI1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD63	211431	CEAV 2	211431	CEAV 2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD40	211757	OWIL TP2	211757	OWIL TP2	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD62	211432	CEAV 1	211432	CEAV 1	N/A	69	229	N-1 Voltage Drop	Included
2025W1-N1-SVD39	211758	OWIL TP1	211758	OWIL TP1	N/A	69	229	N-1 Voltage Drop	Included

New Flowgates

Proprietary Information

Financial Information

Capital spend start date	02/2026
Construction start date	06/2028
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. Jenkins 230/69 kV T2 and T4 transformer re-terminations - PPL
2. Jenkins T4 transformer lead line re-termination - 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