Glen Brook - Nescopeck 230 kV line

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	491
Project title	Glen Brook - Nescopeck 230 kV line
Project description	Construct a new 5.72 mile Glen Brook - Nescopeck 230 kV line using double-bundle 1590 ACSR 45/7 conductor. Add one new 230 kV 3,000 amp circuit breaker and two 230 kV 3,000 amp MODs in the 230 kV Bay 1 of the Glen Brook 230/69 kV Substation. Add one new 230 kV bay, two 230 kV 3,000 amp circuit breakers, and four 230 kV 3,000 amp MODs in the Nescopeck 230 kV Substation.
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 230/69 kV Substation upgrade
2. Nescopeck 230 kV Station expansion
3. Glen Brook - Nescopeck 230 kV line

Substation Upgrade Component

Component title	Glen Brook 230/69 kV Substation upgrade
Project description	Proprietary Information
Substation name	Glen Brook 230/69 kV Substation
Substation zone	PPL EU
Substation upgrade scope	Add one new 230 kV 3,000 amp circuit breaker and two 230 kV 3,000 amp MODs in the 230 kV Bay 1 of the Glen Brook 230/69 kV Substation.

Transformer Information

None

New equipment description	One new 230 kV 3,000 amp circuit breaker Two 230 kV 3,000 amp MODs
Substation assumptions	No assumptions. Existing Developer-owned substation. Space exists for this upgrade with no expansion necessary.
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	$2,817,822.00
Component cost (in-service year)	$3,169,780.98

Substation Upgrade Component

Component title	Nescopeck 230 kV Station expansion
Project description	Proprietary Information
Substation name	Nescopeck 230 kV Station
Substation zone	PPL EU
Substation upgrade scope	Add one new 230 kV bay position, one 230 kV 3,000 amp circuit breaker, and two 230 kV 3,000 amp MODs in the Nescopeck 230 kV Substation.

Transformer Information

None

New equipment description	One new 230 kV bay position (3,000 amp ratings for all bay equipment) One 230 kV 3,000 amp circuit breaker Two 230 kV 3,000 amp MODs
Substation assumptions	No assumptions. Existing Developer-owned substation. Space exists for this upgrade with no expansion necessary.
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	$2,617,822.00
Component cost (in-service year)	$2,944,800.05

Greenfield Transmission Line Component

Component title	Glen Brook - Nescopeck 230 kV line
Project description	Proprietary Information
Point A	Glen Brook
Point B	Nescopeck
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	1245.000000	1431.000000
Winter (MVA)	1475.000000	1640.000000

Conductor size and type	Double-bundle 1590 ACSR 45/7 conductor
Nominal voltage	AC
Nominal voltage	230
Line construction type	Overhead
General route description	Construct a new 5.72 mile Glen Brook - Nescopeck 230 kV line using double-bundle 1590 ACSR 45/7 conductor.

Terrain description	Mostly flat farmland, with a major river crossing and a small section of forested area.
Right-of-way width by segment	Developer proposes new greenfield ROW width of 150 feet for the entire route between the two existing stations.
Electrical transmission infrastructure crossings	Sunbury - Susquehanna 230 kV line, Sunbury - Susquehanna 500 kV line
Civil infrastructure/major waterway facility crossing plan	The proposed project will have an overhead crossing of the Susquehanna River. Developer has multiple transmission lines in the immediate area crossing the Susquehanna that range in size from 69kV to 500kV and has robust experience constructing, operating, and maintaining river crossings of this scale.
Environmental impacts	An extensive review of the proposed project alignment found that this proposed scope will require a suite of permits and agency consultations that are common for transmission development in this region of Pennsylvania. Developer anticipates needing to apply for a General Permit in compliance with the National Pollutant Discharge Elimination System as administered by the Pennsylvania Department of Environmental Protection PA DEP. We anticipate 5-8 stream and wetland crossings that will necessitate permitting under the PADEP, along with a subsurface lands license agreement from the state of Pennsylvania for crossing the Susquehanna River and an accompanying Chapter 106 floodplain permit. Impacts to threatened and endangered species will center around federally and state protected tree roosting bat species due to vegetation clearing activities that will be mitigated by time-of-year tree clearing restrictions. Based on our extensive work experience in the area, we anticipate field work for cultural resources to review new ground disturbing activities and anticipate 3-5 rounds of consultations with the PA Historical & Museum Commission regarding project impacts to prehistoric and historic resources. Depending on the location of our final off-ROW temporary construction accesses the project may require 2-4 PennDOT temporary driveway accesses. Developer will also conduct a review of municipal ordinances to determine if any will apply to the project.
Tower characteristics	Developer proposes single circuit 230 kV monopole steel structures on concrete foundations.
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	$27,146,400.51
Component cost (in-service year)	$30,537,111.26

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-GD-S464	208120	SU10	208113	SUSQ	1	230	229	Generation Deliverability	Included
2025W1-N1-ST106	208120	SU10	208113	SUSQ	1	230/230	229/229	N-1 Thermal	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
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
2025W1-32GD-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-ST78	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

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-32GD-W3	208120	SU10	208113	SUSQ	2	230	229	2032 Generation Deliverability	Included
2025W1-N1-ST77	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-ST76	207915	GLBR	208120	SU10	1	230/230	229/229	N-1 Thermal	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-GD-S14	207915	GLBR	208120	SU10	2	230	229	Generation Deliverability	Included
2025W1-N1-ST84	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-N1-ST83	207915	GLBR	208120	SU10	2	230/230	229/229	N-1 Thermal	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-GD-S163	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-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	09/2028
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 230/69 kV Substation upgrade - PPL
2. Nescopeck 230 kV Station expansion - PPL
3. Glen Brook - Nescopeck 230 kV line - PPL

Cost elements covered by cost containment

Engineering & design	Yes
Permitting / routing / siting	Yes
ROW / land acquisition	No
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