Juniata - Lewistown 230 kV # 2 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	945
Project title	Juniata - Lewistown 230 kV # 2 line
Project description	Construct a new 32-mile Juniata - Lewistown 230 kV # 2 line by utilizing the existing brownfield 69 kV line ROW between Juniata and Mifflintown, and then building a greenfield line from Mifflintown to Lewistown. Build a new 2 breaker bay in the double bus double breaker Juniata 230 kV yard. Build a new 2 breaker bay in the existing double bus double breaker Lewistown 230 kV yard.
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. Juniata - Lewistown 230 kV greenfield line segments
2. Juniata 230 kV Bus Upgrade
3. Lewistown 230 kV Bus Upgrade

Greenfield Transmission Line Component

Component title	Juniata - Lewistown 230 kV greenfield line segments	
Project description	Proprietary Information	
Point A	Juniata	
Point B	Lewistown	
Point C		
	Normal ratings	Emergency ratings
Summer (MVA)	739.000000	881.000000
Winter (MVA)	799.000000	943.000000
Conductor size and type	1272 ACSS/TW HS285 "Pheasant" conductor	
Nominal voltage	AC	
Nominal voltage	230	
Line construction type	Overhead	
General route description	The route starts at Juniata Substation, heads north following existing brownfield transmission corridors that will be expanded by 150 feet towards Thompsontown. From Thompsontown, the proposed corridor heads northwest largely following a new greenfield 150 foot corridor towards Lewistown Substation.	
Terrain description	Both mountainous and agricultural terrain.	
Right-of-way width by segment	Developer proposes to widen existing 69 kV corridors by 100 feet for the proposed 230 kV line. For greenfield sections, Developer proposes 150 feet of new ROW.	
Electrical transmission infrastructure crossings	Juniata - Dauphin 230 kV line, Sunbury - Juniata 500 kV line	
Civil infrastructure/major waterway facility crossing plan	We do not foresee any major waterway crossings, but the line will cross the following smaller waterways: (1) Juniata River (2) Markee Creek (3) East Licking Creek	

Environmental impacts	The proposed project passes through the Pennsylvania Ridge and Valley region, which is characterized by southwest-northeast trending ridgelines and valleys with attendant streams. Terrain within the valleys is characterized by a mixture of agricultural and forested areas while the mountain ridges are primarily forested uplands. Robust erosion and sediment controls dictated by Pennsylvania's BMP Manual will be deployed as a baseline due to the steep terrain of the region. Temporary and permanent impacts to the landscape will be minimized by: • avoiding construction in wetlands and waterways to the extent possible; • limiting the construction of access roads and construction pads to the minimum required to safely execute construction and O&M; • deploying robust BMPs to limit erosion; • consulting with federal and state agencies to avoid or reduce impacts to rare, threatened, and endangered species. The project will require several wetland and waterway permits including GP 5 aerial crossings, along with several GP 7 and GP 8 permits, dependent on final constructability determinations. Based on a review of publicly available data the project will likely trigger an individual NPDES permit, necessitating the use of ABACT erosion and sediment control BMPs. The scope of the project will require extensive consultation with Pennsylvania's DEP. Federally protected species may occur within the proposed project area, including Northern Long Eared Bats, which would require time-of-year restrictions on tree clearing and construction activities. Greenfield sections of the proposed project will likely trigger archaeological field investigations to ensure project impacts to cultural resources are minimized to the extent practicable.
Tower characteristics	Developer proposes single circuit 230 kV on steel monopole structures.
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	$146,668,453.94
Component cost (in-service year)	$174,132,949.30

Substation Upgrade Component

Component title	Juniata 230 kV Bus Upgrade
Project description	Proprietary Information
Substation name	Juniata 500/230 kV Substation
Substation zone	PPL
Substation upgrade scope	Add a new 230 kV double bus double breaker bay at Juniata with two new 3000 amp 230 kV breakers and 4 new 3000 amp 230 kV MODs.

Transformer Information

None

New equipment description	One 230 kV double bus double breaker bay Two 3,000 amp 230 kV breakers Four 3,000 amp 230 kV MODs
Substation assumptions	Substation owned by proposer.
Real-estate description	The substation does not need to be expanded.
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	$4,910,000.00
Component cost (in-service year)	$5,829,425.20

Substation Upgrade Component

Component title	Lewistown 230 kV Bus Upgrade
Project description	Proprietary Information
Substation name	Lewistown 230 kV Substation
Substation zone	PENELEC
Substation upgrade scope	Add a new 230 kV double bus double breaker bay at Lewistown Substation with two new 3,000 amp 230 kV breakers and 4 new 3,000 amp 230 kV MODs.

Transformer Information

None

New equipment description	One 230 kV double bus double breaker bay Two 3,000 amp 230 kV breakers Four 3,000 amp 230 kV MODs
Substation assumptions	Substation could be expanded to either the north or south. If expansion to the north not possible, the existing JUNI-LEWI 230 kV # 1 line would be swapped with the new # 2 line and brought into the new southern bay so as to avoid line crossings east of the station. Expansion to the south of the station has been assumed due to nearby roadway and lower voltage equipment on the north side.
Real-estate description	Assumed that no new real estate is required.
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	$7,500,000.00
Component cost (in-service year)	$7,985,940.13

Congestion Drivers

None

Existing Flowgates

None

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. Juniata - Lewistown 230 kV greenfield line segments - PPL
2. Juniata 230 kV Bus Upgrade - 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