

Juniata - Cumberland 230 kV Line Reconductor

General Information

Proposing entity name	PPLTO
Company proposal ID	PPL-JUNI-CUMB-01
PJM Proposal ID	218
Project title	Juniata - Cumberland 230 kV Line Reconductor
Project description	Juniata - Cumberland 230 kV Line Reconductor: Reconductor the 14.2 miles of the existing Juniata - Cumberland 230kV line with 1272 ACSS/TW HS285 "Pheasant" conductor that will provide ratings of SN: 738 MVA, SE: 881 MVA, WN: 799 MVA, WE: 943 MVA Minimum tower reinforcements and replacement of one structure. The final overall JUNI-CUMB 230 kV line rating will be SN: 721 MVA, SE: 814 MVA, WN: 799 MVA, and WE: 911 MVA Need Date: May 2025
Project in-service date	12/2023
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	

Project Components

1. Juniata - Cumberland 230 kV line reconductor

Transmission Line Upgrade Component

Component title	Juniata - Cumberland 230 kV line reconductor
Impacted transmission line	Juniata - Cumberland 230 kV line
Point A	Juniata

Point B Cumberland

Point C

Terrain description There are 26 line crossings of various kinds (e.g. transmission and distribution line crossings, road and interstate crossings, and pond / creek crossings).

Existing Line Physical Characteristics

Operating voltage 230 kV

Conductor size and type 1033.5 54/7 ACSR "Curlew" Conductor

Hardware plan description Replace all porcelain assemblies with glass assemblies and all new hardware (replace 96 tension double insulator strings [26 bells per string]) and 174 suspension insulator strings [13 bells per string]).

Tower line characteristics There are 75 structures consisting of (2) 1-way dead-ends (lattice terminal structures), (3) 2-way dead-end poles, (12) deadend lattice towers, (57) suspension lattice towers and (1) suspension pole.

Proposed Line Characteristics

	Designed	Operating
Voltage (kV)	230.000000	230.000000
	Normal ratings	Emergency ratings
Summer (MVA)	721.000000	814.000000
Winter (MVA)	799.000000	911.000000
Conductor size and type	ACSS/TW/HS285-1272MCM "PHEASANT" conductor	
Shield wire size and type	Existing shield wires to remain	
Rebuild line length	14.2 mile line reconductor	
Rebuild portion description	Upgrade is not a rebuild. There are only structure reinforcements as necessary and one tower replacement.	

Right of way

No right-of-way expansion is required for this project.

Construction responsibility

PPL

Additional comments

Component Cost Details - In Current Year \$

Engineering & design

Company confidential and proprietary information

Permitting / routing / siting

Company confidential and proprietary information

ROW / land acquisition

Company confidential and proprietary information

Materials & equipment

Company confidential and proprietary information

Construction & commissioning

Company confidential and proprietary information

Construction management

Company confidential and proprietary information

Overheads & miscellaneous costs

Company confidential and proprietary information

Contingency

Company confidential and proprietary information

Total component cost

\$8,226,655.00

Component cost (in-service year)

\$8,995,801.00

Congestion Drivers

CD #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type
ME-7	207950	CUMB TR2	208004	JUNI BU1	1	230	229	Market Efficiency

Existing Flowgates

None

New Flowgates

None

Financial Information

Capital spend start date 03/2022

Construction start date 04/2023

Project Duration (In Months) 21

Cost Containment Commitment

Cost cap (in current year) Company confidential and proprietary information

Cost cap (in-service year) Company confidential and proprietary information

Components covered by cost containment

1. Juniata - Cumberland 230 kV line reconductor - 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

Company confidential and proprietary information

Is the proposer offering a binding cap on ROE?

No

Is the proposer offering a Debt to Equity Ratio cap?

Company confidential and proprietary information

Additional comments

None