Reconductor Silver Run - Cedar Creek Line

General Information

Proposing entity name	DPL
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Yes
Company proposal ID	DPL - 02
PJM Proposal ID	573
Project title	Reconductor Silver Run - Cedar Creek Line
Project description	Reconductor Silver Run - Cedar Creek 230kV line. Upgrade bushing, disconnect, stranded bus, and rigid bus at Cedar Creek substation. Upgrade 1590 ACSR "Lapwing" jumper and disconnect at Silver Run substation.
Email	Proprietary Information
Project in-service date	06/2028
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	

Project Components

1. Silver Run - Cedar Creek 230kV Line
2. Cedar Creek 230kV Substation Upgrades
3. Silver Run 230kV Substation Upgrades

Transmission Line Upgrade Component

Component title	Silver Run - Cedar Creek 230kV Line
Project description	Reconductor the 230 kV line from Silver Run - Cedar Creek with a high temperature conductor. Structures and shield wire will remain the same, only the conductor and insulators will be upgraded.
Impacted transmission line	Silver Run - Cedar Creek 230kV Line
Point A	Silver Run
Point B	Cedar Creek
Point C	
Terrain description	Terrain varies from flat to mildly sloping.

Existing Line Physical Characteristics

Operating voltage	230
Conductor size and type	1590 ACSR 45/7 “Lapwing”
Hardware plan description	Existing 0.551 OPGW shield wire installed in 2016 will be utilized.
Tower line characteristics	Existing steel monopole structures installed in 2016 will be utilized.

Proposed Line Characteristics

	Designed	**Operating**
Voltage (kV)	230.000000	230.000000
	Normal ratings	**Emergency ratings**
Summer (MVA)	996.000000	1146.000000
Winter (MVA)	1060.000000	1209.000000
Conductor size and type	1954-T11/ACCR "Lapwing"	
Shield wire size and type	Shield wire will not be replaced; 0.551 OPGW	
Rebuild line length	8.8 Miles	

Rebuild portion description	Reconductor 8.8 miles of 230 kV Circuit with 1594-T11/ACCR “Lapwing” conductor and replace all insulators with high temp hardware.
Right of way	No right-of-way expansion or new right-of-way acquisition will be needed for this project.
Construction responsibility	DPL
Benefits/Comments	

Component Cost Details - In Current Year $

Engineering & design	detailed cost
Permitting / routing / siting	detailed cost
ROW / land acquisition	detailed cost
Materials & equipment	detailed cost
Construction & commissioning	detailed cost
Construction management	detailed cost
Overheads & miscellaneous costs	detailed cost
Contingency	detailed cost
Total component cost	$7,678,653.72
Component cost (in-service year)	$8,642,392.40

Substation Upgrade Component

Component title	Cedar Creek 230kV Substation Upgrades
Project description	Upgrade substation components at Cedar Creek substation on the Cedar Creek - Silver Run line terminal. Equipment to be upgraded includes: bushing, disconnect switch, stranded bus, and rigid bus.
Substation name	Cedar Creek
Substation zone	DPL

Substation upgrade scope	Upgrade standalone CT's, disconnect switch, stranded bus, and rigid bus at Cedar Creek substation on the Cedar Creek - Silver Run line terminal to meet a rating equal to or greater than the new conductor rating.

Transformer Information

None

New equipment description	Replace three (3) standalone CTs, disconnect switch, stranded bus, and rigid bus to achieve higher rating.
Substation assumptions	Adequate space in substation for upgrade.
Real-estate description	No additional ROW required.
Construction responsibility	DPL
Benefits/Comments	

Component Cost Details - In Current Year $

Engineering & design	detailed cost
Permitting / routing / siting	detailed cost
ROW / land acquisition	detailed cost
Materials & equipment	detailed cost
Construction & commissioning	detailed cost
Construction management	detailed cost
Overheads & miscellaneous costs	detailed cost
Contingency	detailed cost
Total component cost	$452,738.46
Component cost (in-service year)	$509,561.14

Substation Upgrade Component

Component title	Silver Run 230kV Substation Upgrades
Project description	Upgrade substation equipment to support reconductor of Silver Run - Cedar Creek 230kV Line.
Substation name	Silver Run
Substation zone	DPL
Substation upgrade scope	Upgrade 1590 ACSR "Lapwing" jumper and disconnect switch

Transformer Information

None

New equipment description	Replace three(3) 1-1590 ACSR Jumpers and one(1) air disconnect switch.
Substation assumptions	LS Power to complete upgrades
Real-estate description	LS Power to complete upgrades
Construction responsibility	LS POWER
Benefits/Comments	

Component Cost Details - In Current Year $

Engineering & design	detailed cost
Permitting / routing / siting	detailed cost
ROW / land acquisition	detailed cost
Materials & equipment	detailed cost
Construction & commissioning	detailed cost
Construction management	detailed cost
Overheads & miscellaneous costs	detailed cost
Contingency	detailed cost
Total component cost	$579,999.94

Component cost (in-service year) $652,795.04

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
2023W1-IPD-S1	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-GD-S143	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Deleted
2023W1-IPD-S3	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S2	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S5	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S4	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S7	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S18	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S6	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S17	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S16	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S9	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S8	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-GD-S158	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Deleted
2023W1-IPD-S11	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-GD-S802	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Deleted
2023W1-IPD-S10	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S13	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S12	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-GD-S803	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Deleted
2023W1-IPD-S15	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S14	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2023W1-IPD-S29	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-GD-S798	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Deleted
2023W1-IPD-S28	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S27	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-IPD-S19	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included
2023W1-GD-S765	232013	SILVER RUN	232002	CEDAR CK	1	230	235/231	Summer Gen Deliv	Included
2023W1-IPD-S26	232002	CEDAR CK	232013	SILVER RUN	1	230	235/231	Summer IPD	Included

New Flowgates

None

Financial Information

Capital spend start date	01/2025
Construction start date	01/2028
Project Duration (In Months)	41

Additional Comments

None