Line 573 Rebuild - North Anna to Spotsylvania

General Information

Proposing entity name	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Company proposal ID	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
PJM Proposal ID	948
Project title	Line 573 Rebuild - North Anna to Spotsylvania
Project description	Wreck and rebuild 500kV line 573 from North Anna Substation (structure 573/1A) to Spotsylvania Substation (structure 573/78). Upgrade/install equipment at North Anna and Spotsylvania substations to support the new conductor termination.
Email	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Project in-service date	06/2032
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.

Project Components

1. Line 573 Rebuild - North Anna to Spotsylvania (99-3405)
2. North Anna Substation Terminal Equipment Uprate (99-3405)
3. Spotsylvania Substation Terminal Equipment Uprate (99-3405)

Transmission Line Upgrade Component

Component title	Line 573 Rebuild - North Anna to Spotsylvania (99-3405)
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Impacted transmission line	Line 573
Point A	North Anna
Point B	Spotsylvania
Point C	
Terrain description	The project area is in the central Virginia Piedmont region with elevations ranging from approximately 240 to 450 feet. The terrain is predominately vegetated existing right-of-way in rural areas. The line will include 13 VDOT road crossings and a new crossing of Lake Anna as well as several over stream crossings. The line starts in Louisa County and terminates in Spotsylvania County.
Existing Line Physical Characteristics	
Operating voltage	500
Conductor size and type	2-2500 ACAR (84/7) 90°C MOT
Hardware plan description	New hardware will be used for line rebuild.
Tower line characteristics	Existing Structures will be removed and new structures will be used for this rebuild.
Proposed Line Characteristics	

	Designed	Operating
Voltage (kV)	500.000000	500.000000
	Normal ratings	Emergency ratings
Summer (MVA)	4357.000000	4357.000000
Winter (MVA)	5155.000000	5155.000000
Conductor size and type	3-1351 ACSS/TW/HS285 145°C MOT	

Shield wire size and type	(2) DNO-11410 OPGW
Rebuild line length	14 miles
Rebuild portion description	EXISTING FACILITIES TO BE REMOVED: 1. Remove sixty-six (66) existing single circuit steel suspension tower structures on foundations as follows: a. Structures 573/3-7, 11-12, 14-20, 22-23, 25-31, 33-37, 39-74, 76-77. 2. Remove eight (8) existing single circuit steel double deadend tower structures on foundations as follows: a. Structures 573/1-2, 10, 13, 24, 32, 38, 77A. 3. Remove two (2) existing single circuit steel running angle tower structures on foundations as follows: a. Structures 573/21, 75. 4. Remove two (2) existing single circuit steel suspension H-frame structures on foundations as follows: a. Structures 573/8-9. 5. Remove approximately 14.02 miles of 2-2500 ACAR (84/7) conductor from existing backbone structure 573/1A to existing structure 573/78 6. Remove approximately 14.02 miles of one (1) 45/45 MM2 614 OPGW from existing structure 573/1A to existing structure 573/78. 7. Remove approximately 14.02 miles of one (1) 7#7 Alumoweld shield wire from existing structure 573/1A to existing structure 573/78. PERMANENT FACILITIES TO BE INSTALLED: 1. Install sixty-four (64) 500/230kV double circuit steel V-string suspension towers [Reference Drawing 15.300] on foundations as follows: a. Structures 573/3-4, 6-9, 11-12, 14-20, 22-23, 25-31, 33-37, 39-48, 50-51, 53-55, 87-74, 76-77. 2. Install four (4) 500/230kVdouble circuit steel V-string running angle towers [Reference Drawing 15.805] on foundations as follows: a. Structures 573/5, 21, 49, 75. 3. Install two (2) 500/230kV double circuit steel double deadend heavy angle 3-pole structures [Reference Drawing 15.226] on foundations as follows: a. Structures 573/1, 32. 4. Install eight (8) 500/230kV double circuit steel double deadend small/medium angle 3-pole structures [Reference Drawing 15.225] on foundations as follows: a. Structures 573/2, 10, 13, 24, 38, 52, 66, 77A. 5. Install approximately 14.02 miles of 3-phase 3-1351 ACSS/TW/HS285 @ 145? conductor from existing structure 573/1A to existing structure 573/78. 6. Install approximately 14.02 miles of two (2) DNO-10100 OPGW wire from existing structure 573/1A to existing structure 573/78.
Right of way	Existing Right-of-Way shall be used.
Construction responsibility	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Benefits/Comments	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Component Cost Details - In Current Year $	
Engineering & design	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Permitting / routing / siting	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
ROW / land acquisition	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Materials & equipment	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.

Construction & commissioning	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Construction management	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Overheads & miscellaneous costs	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Contingency	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Total component cost	$92,308,641.00
Component cost (in-service year)	$98,862,555.00

Substation Upgrade Component

Component title	North Anna Substation Terminal Equipment Uprate (99-3405)
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Substation name	North Anna
Substation zone	366
Substation upgrade scope	Purchase & Install Substation Material: 1. Four (4), 500 kV, 5000A Double End Break Switches. 2. One (1), 500kV, Motor Operator. 3. One (1), 500 kV, 63kAIC, 5000A, SF6 Circuit Breakers. 4. Three (3), 500kV Coupling Capacitor Voltage Transformers. 5. Approximately 600 FT 6 in. Sch. 80 AL tube bus. 6. Conductor, connectors, conduit, control cable, foundations, steel structures and grounding material as necessary per engineering standards. Remove Substation Material: 1. Four (4), 500 kV, 3000A Double End Break Switches. 2. One (1), 500 kV, 50kAIC, 5000A, SF6 Circuit Breaker. 3. One (1), 500 kV, 5000A, 115-300kHz, Wave Trap. 4. One (1), 500kV, Motor Operator. 5. Approximately 600 FT 5 in. Sch. 40 AL tube bus. 6. Conductor, connectors, conduit, control cable, foundations, steel structures and grounding material as necessary per engineering standards. Reuse Relay Material: 1. One (1), 4510 – SEL-2411 Equipment Annunciator (CB 57302) 2. One (1), 1510 – 24” Dual SEL-351 Transmission Breaker w/ Reclosing Panel (CB 57302) 3. One (1), 1515 – 24” Dual 500KV SEL-351 Transmission Breaker w/ Reclosing Panel (CB 57302) 4. One (1), 4526_D – C.B. w/ BCM Fiber Optic Makeup Box 5. One (1), 4535 or 4536 – 500kV Circuit Breaker Condition Monitor Purchase & Install Relay Material: 1. One (1), 1340 – Dual SEL-411L DCB/Fiber, CD/Fiber Line Panel (500kV w/ 2 Fiber Cables) 2. One (1), 4506 – 3Ø CCVT Potential Makeup Box 3. One (1), Panel Retirement

Transformer Information

None

New equipment description	1. Four (4), 500 kV, 5000A Double End Break Switches. 2. One (1), 500kV, Motor Operator. 3. One (1), 500 kV, 63kAIC, 5000A, SF6 Circuit Breakers. 4. Three (3), 500kV Coupling Capacitor Voltage Transformers. 5. One (1), 1340 – Dual SEL-411L DCB/Fiber, CD/Fiber Line Panel (500kV w/ 2 Fiber Cables). 6. One (1), 4506 – 3Ø CCVT Potential Makeup Box.
Substation assumptions	1. The scope of work depicted on the drawings assumes that there is no overlap with other designs and construction activities, except if mentioned in this Project Summary. 2. Relay Settings and protection & control design to add transmission breakers will be revised as part of the SPE scope of work. 3. 4-hole pad connections must be replaced with 6-hole and 8-hole connections to maintain 5000A ratings.
Real-estate description	The substation will not be expanded for this project.
Construction responsibility	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Benefits/Comments	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Component Cost Details - In Current Year $	
Engineering & design	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Permitting / routing / siting	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
ROW / land acquisition	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Materials & equipment	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Construction & commissioning	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Construction management	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Overheads & miscellaneous costs	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Contingency	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Total component cost	$4,541,142.70
Component cost (in-service year)	$4,863,564.15

Substation Upgrade Component

Component title	Spotsylvania Substation Terminal Equipment Uprate (99-3405)

Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Substation name	Spotsylvania
Substation zone	366
Substation upgrade scope	Purchase & Install Substation Material: 1. Four (4), 500 kV, 5000A Double End Break Switches. 2. Two (2), 500 kV, 63kAIC, 5000A, SF6 Circuit Breakers. 3. Three (3), 396 kV, 318 kV MCOV Station Class Surge Arresters. 4. Approximately 2200 FT 6 in. Sch. 80 AL tube bus. 5. Conductor, connectors, conduit, control cable, Foundations, steel structures and grounding material as necessary per engineering standards. Remove Substation Material: 1. Four (4), 500 kV, 4000A Double End Break Switches. 2. Two (2), 500 kV, 50kAIC, 4000A, SF6 Circuit Breaker. 3. One (1), 500 kV, 4000A, 115-300kHz, Wave Trap. 4. Approximately 2200 FT 6 in. Sch. 40 AL tube bus. 5. Conductor, connectors, conduit, control cable, Foundations, steel structures and grounding material as necessary per engineering standards. Reuse Relay Material: 1. Two (2), 4510 – SEL-2411 Equipment Annunciator (CB 515T573, CB H1T573) 2. Two (2), 1510 – 24” Dual SEL-351 Transmission Breaker w/ Reclosing Panel (CB 515T573, CB H1T573) 3. Two (2), 1515 – 24” Dual 500KV SEL-351 Transmission Breaker w/ Reclosing Panel (CB 515T573, CB H1T573) 4. Two (2), 4535 or 4536 – 500kV Circuit Breaker Condition Monitor 5. Two (2), 4526_D – C.B. w/ BCM Fiber Optic Makeup Box Purchase & Install Relay Material: 1. One (1), 1340 – Dual SEL-411L DCB/Fiber, CD/Fiber Line Panel (500kV w/ 2 Fiber Cables)

Transformer Information

None

New equipment description	1. Four (4), 500 kV, 5000A Double End Break Switches. 2. Two (2), 500 kV, 63kAIC, 5000A, SF6 Circuit Breakers. 3. Three (3), 396 kV, 318 kV MCOV Station Class Surge Arresters. 4. One (1), 1340 – Dual SEL-411L DCB/Fiber, CD/Fiber Line Panel (500kV w/ 2 Fiber Cables)
Substation assumptions	1. The scope of work depicted on the drawings assumes that there is no overlap with other designs and construction activities, except if mentioned in this Project Summary. 2. Relay Settings and protection & control design to add transmission breakers will be revised as part of the SPE scope of work. 3. 4-hole pad connections must be replaced with 6-hole and 8-hole connections to maintain 5000A ratings.
Real-estate description	The substation will not be expanded for this project.
Construction responsibility	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Benefits/Comments	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Component Cost Details - In Current Year $	

Engineering & design	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Permitting / routing / siting	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
ROW / land acquisition	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Materials & equipment	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Construction & commissioning	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Construction management	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Overheads & miscellaneous costs	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Contingency	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Total component cost	$6,181,650.90
Component cost (in-service year)	$6,620,548.00

Congestion Drivers

None

Existing Flowgates

None

New Flowgates

The redacted information is proprietary to the Company; therefore, it is privileged and confidential.

Financial Information

Capital spend start date	01/2026
Construction start date	06/2029
Project Duration (In Months)	77

Cost Containment Commitment

Cost cap (in current year)	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Cost cap (in-service year)	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.

Components covered by cost containment

1. Line 573 Rebuild - North Anna to Spotsylvania (99-3405) - Dominion
2. North Anna Substation Terminal Equipment Uprate (99-3405) - Dominion
3. Spotsylvania Substation Terminal Equipment Uprate (99-3405) - Dominion

Cost elements covered by cost containment

Engineering & design	Yes
Permitting / routing / siting	No
ROW / land acquisition	No
Materials & equipment	No
Construction & commissioning	No
Construction management	No
Overheads & miscellaneous costs	No
Taxes	No
AFUDC	No
Escalation	No
Additional Information	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Is the proposer offering a binding cap on ROE?	Yes
Would this ROE cap apply to the determination of AFUDC?	Yes

Would the proposer seek to increase the proposed ROE if FERC finds that a higher ROE would not be unreasonable?	No
Is the proposer offering a Debt to Equity Ratio cap?	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.

Additional Comments

None