Line 5008 Cut-in into Mosby Substation

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	245
Project title	Line 5008 Cut-in into Mosby Substation
Project description	This project serves to cut and extend Line #5008 (Morrisville to Wishing Star) into Mosby substation.
Email	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Project in-service date	06/2030
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 5008 Cut-in to Mosby Substation
2. Mosby Substation Equipment Upgrade

Transmission Line Upgrade Component

Component title	Line 5008 Cut-in to Mosby Substation

Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Impacted transmission line	Line 5008
Point A	Morrisville
Point B	Mosby
Point C	Wishing Star
Terrain description	The area is in the Piedmont region of Virginia, characterized by generally rolling hills and dissected plateaus.

Existing Line Physical Characteristics

Operating voltage	500
Conductor size and type	2-768.2 ACSS/TW/HS 20/7) 250°C MOT
Hardware plan description	New hardware will be used for the line cut-in.
Tower line characteristics	New structures will be installed for this line cut-in.

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/HS (42/19) 145°C MOT	
Shield wire size and type	(2) DNO-10110 shield wire	
Rebuild line length	0.25 Miles	

Rebuild portion description	Permanent Facilities to be Installed: 1. (2) 500 kV SC Steel DDE 3-Pole Structure 2. (1) 500 kV SC Steel A-Frame Backbone Structure 3. 0.25 miles of 3-1351 ACSS/TW/HS Conductor 4. 0.25 miles of DNO-10100 OPGW Existing Facilities to be Transferred or Modified 1. Install three (3) 500 kV conductor crossing strain assemblies and two (2) OPGW dead-end assemblies on existing A-frame backbone structure 9573/XXA. 2. Cut existing span of 2-768 ACSS/TW/HS conductor and transfer to back side of proposed structure 5008/XXA. 3. Cut existing span of 2-768 ACSS/TW/HS conductor and transfer to ahead side of proposed structure 9573/XXB. 4. Cut existing spans of two (2) DNO-10100 OPGW and transfer to back side of proposed structure 5008/XXA. 5. Cut existing spans of two (2) DNO-10100 OPGW and transfer to ahead side of proposed structure 9573/XXB.
Right of way	No new ROW needed.
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	$6,686,110.00
Component cost (in-service year)	$7,160,824.00

Substation Upgrade Component

Component title	Mosby Substation Equipment Upgrade
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.

Substation name	Mosby
Substation zone	345
Substation upgrade scope	Purchase & Install Substation Material: 1. Five (5), 500kV, 63kAIC, 5000A, SF6 Circuit Breakers. 2. Six (6), 500kV, 5000A Double End Break Switches. 3. Six (6), 396kV, 318kV MCOV Station Class Surge Arresters. 4. Six (6), 500kV CCVTs 5. Approximately 300 FT of 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. One (1), 500kV, 50kAIC, 4000A, SF6 Circuit Breakers. 2. Two (2), 500kV, 4000A, Double End Break Switches. 3. Approximately 300 FT of 6 in. Sch. 40 AL tube bus. 4. Conductors, connectors, conduit, control cable, foundations, steel structures and grounding material as necessary per engineering standards. Purchase & Install Relay Material: 1. Two (2), 1340 – Dual SEL-411L DCB/Fiber, CD/Fiber Line Panel (500kV w/ 2 Fiber Cables) 2. Five (5), 4510 – SEL-2411 Equipment Annunciator 3. Five (5), 1510 – 24” Dual SEL-351 Transmission Breaker w/ Reclosing Panel 4. Five (5), 1515 – 24” Dual 500KV SEL-351 Transmission Breaker w/ Reclosing Panel 5. Five (5), 4526_D – C.B. w/ BCM Fiber Optic Makeup Box 6. Five (5), 4535 or 4536 – 500kV Circuit Breaker Condition Monitor 7. Two (2), 4506 – 3Ø CCVT Potential Makeup Box

Transformer Information

None

New equipment description	1. Five (5), 500kV, 63kAIC, 5000A, SF6 Circuit Breakers. 2. Six (6), 500kV, 5000A Double End Break Switches. 3. Six (6), 396kV, 318kV MCOV Station Class Surge Arresters. 4. Six (6), 500kV CCVTs 5. Two (2), 1340 – Dual SEL-411L DCB/Fiber, CD/Fiber Line Panel (500kV w/ 2 Fiber Cables) 6. Five (5), 4510 – SEL-2411 Equipment Annunciator 7. Five (5), 1510 – 24” Dual SEL-351 Transmission Breaker w/ Reclosing Panel 8. Five (5), 1515 – 24” Dual 500KV SEL-351 Transmission Breaker w/ Reclosing Panel 9. Five (5), 4526_D – C.B. w/ BCM Fiber Optic Makeup Box 10. Five (5), 4535 or 4536 – 500kV Circuit Breaker Condition Monitor 11. Two (2), 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. 4-hole pad connections must be replaced with 6-hole pad connections to maintain 5000A ratings. 3. Relay Settings and P&C design will be revised as part of the SPE Scope of Work.
Real-estate description	No additional real estate needed.
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	$9,559,267.30
Component cost (in-service year)	$10,237,975.00

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	06/2028

Project Duration (In Months)	53

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 5008 Cut-in to Mosby Substation - Dominion
2. Mosby Substation Equipment Upgrade - 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