# Line 5008 Cut-in into Mosby Substation

## General Information

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| 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 | 253 |
| 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

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| Component title | Line 5008 Cut-in to Mosby Substation |

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| 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

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| 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 | |

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| 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

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

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| 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

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| 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 $

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|---|---|
| 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

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| Capital spend start date | 01/2026 |
| Construction start date | 06/2028 |

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| Project Duration (In Months) | 53 |

## Cost Containment Commitment

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| 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

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|---|---|
| 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 |

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| 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