Waxpool Loop - Nimbus to Farmwell line extension

General Information

| Proposing entity name | 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 | 704 |
| Project title | Waxpool Loop - Nimbus to Farmwell line extension |
| Project description | Extend a new single circuit 230KV line (#9250) from Farmwell Substation to Nimbus Substation and removal of Beaumeade Line #2152 line switch. See the Additional Comments of the Transmission Line Upgrade Component section for overall ratings. |
| Project in-service date | 12/2025 |
| Tie-line impact | No |
| Interregional project | No |
| Is the proposer offering a binding cap on capital costs? | No |
| Additional benefits | The redacted information is proprietary to the Company, therefore it is privileged and confidential. |
| Project Components | |
| 1. 230kV line extension from Farmwell to Nimbus | |
| 2. Nimbus Substation 230kV termination | |
| 3. Farmwell Substation 230kV termination | |
| 4. Beaumeade Substation line switch 215299 removal | |
| Greenfield Transmission Line Component | |

Component title

Point A

230kV line extension from Farmwell to Nimbus

Farmwell

| Point B | Nimbus | | | | |
|--|--|---|--|--|--|
| Point C | | | | | |
| | Normal ratings | Emergency ratings | | | |
| Summer (MVA) | 1574.000000 | 1574.000000 | | | |
| Winter (MVA) | 1650.000000 | 1650.000000 | | | |
| Conductor size and type | 2-768 ACSS/TW MOT 250 Deg C (New line conductor Line #9250) | | | | |
| Nominal voltage | AC | | | | |
| Nominal voltage | 230 kV | | | | |
| Line construction type | Overhead | | | | |
| General route description | Extend a new 230kV single circuit line (#9250) approximately 0.4 miles of new ROW between Farmwell Substation and Nimbus Substation between two data center buildings owned by the same data center developer. | | | | |
| Terrain description | The area is predominately urban with minimal changes in elevations. The areas that are forested will ultimately be developed in the future. The zoning is Planned Development Office Park. | | | | |
| Right-of-way width by segment | The new right-of-way for the single circuit 230-kV Line #9250 (Farmwell to Nimbus) is 80 feet wide. | | | | |
| Electrical transmission infrastructure crossings | None | | | | |
| Civil infrastructure/major waterway facility crossing plan | None | | | | |
| Environmental impacts | Please review section A.4 Assessment of Potential Environmental Impacts in the attached Waxpool Area Proposal D1 Real Estate and Permitting document attached in the supporting documents. | | | | |
| Tower characteristics | 230kV single circuit double deadend steel pole structures with foundations. | | | | |
| Construction responsibility | The redacted information is proprietary to the Company, therefore it is privileged and confidential. | | | | |
| Additional 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 prop | prietary to the Company, therefore it is privileged and confidential. | | | |

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| 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 | \$3,957,734.00 |
| Component cost (in-service year) | \$4,238,733.00 |
| Substation Upgrade Component | |
| Component title | Nimbus Substation 230kV termination |
| Substation name | Nimbus Substation |
| Substation zone | 352 |
| Substation upgrade scope | The Nimbus Substation upgrade component provides for the substation work required to create a new line terminal at the Nimbus substation. The scope includes addition of a 230 kV Circuit Breaker, Disconnect Switches, CCVT's, arresters and relay materials. |
| Transformer Information | |
| None | |
| New equipment description | Purchase and Install: 1.) One (1), 230kV, 63kAIC, 4000A SF6 Circuit Breakers. 2.) Two (2), 230 kV, 4000A, center break disconnect switches. 3.) Three (3), 230kV CCVT's. 4.) Three (3), 180kV, 144kV MCOV Surge Arresters. 5.) Conductor, connectors, conduit, control cable, foundations, steel structures, grounding material, and relay materials per engineering standards |
| Substation assumptions | Farmwell Substation is planned for an ultimate six-breaker ring bus and has an empty position for the termination of the new line. Proposal D1 will not require an reconfiguration of Farmwell Substation. The company will remove tubular bus and structures as required to accommodate the new breaker. Nimbus terminal equipment will be rated higher than the line conductor. |

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| Real-estate description |
|---|
| Construction responsibility |
| Additional comments |
| Component Cost Details - In Current Year \$ |
| Engineering & design |
| Permitting / routing / siting |
| ROW / land acquisition |
| Materials & equipment |
| Construction & commissioning |
| Construction management |
| Overheads & miscellaneous costs |
| Contingency |
| Total component cost |
| Component cost (in-service year) |
| Substation Upgrade Component |
| Component title |
| Substation name |
| Substation zone |
| Substation upgrade scope |
| |
| Transformer Information |

Nimbus Substation will not be expanded for Proposal D1.

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Farmwell Substation 230kV termination

Farmwell Substation

352

The project provides for the substation work required to create a new line terminal at the Farmwell substation. The substation scope includes addition of a 230 kV Circuit Breaker, Disconnect Switch, CCVT's, arresters, and relay material.

| None | |
|---|---|
| New equipment description | Purchase and Install: 1.) One (1), 230kV, 63kAIC, 4000A SF6 Circuit Breaker. 2.) One (1), 230 kV, 4000A, center break disconnect switch. 3.) Three (3), 230kV CCVT's. 4.) Three (3), 180kV, 144kV MCOV Surge Arresters. 5.) Conductor, connectors, conduits, control cables, foundations, steel structures, grounding material, and relay material as per engineering standards |
| Substation assumptions | Farmwell substation has an empty position for the termination of the new line. Proposal D1 will not require an reconfiguration of Farmwell Substation. The company will remove existing tubular bus and structures as required to accommodate the new breaker. Farmwell terminal equipment will be rated higher than the line conductor. |
| Real-estate description | Farmwell Substation will not be expanded as part of this proposal. |
| Construction responsibility | The redacted information is proprietary to the Company, therefore it is privileged and confidential. |
| Additional 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 | \$776,653.00 |
| Component cost (in-service year) | \$831,795.00 |
| Substation Upgrade Component | |
| Component title | Beaumeade Substation line switch 215299 removal |

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| Substation name | Beaumeade Substation |
|---|--|
| Substation zone | 352 |
| Substation upgrade scope | Removal of the line switch 215299 switch and associated conductors/connectors located on the Beaumeade Substation backbone. |
| Transformer Information | |
| None | |
| New equipment description | Install line lead conductors, connectors and insulators to reconnect the line to the bus to accommodate at summer line rating of 1047 MVA. |
| Substation assumptions | Line switch will be removed to increase the line rating of Line 2152 (Beaumeade - Nimbus) to a summer rating of 1047 MVA. Two breakers will be used as the interrupting devices for this line therefore the Line switch is not required per Company standards. |
| Real-estate description | Beaumeade substation will not be expanded as part of Proposal D1. |
| Construction responsibility | The redacted information is proprietary to the Company, therefore it is privileged and confidential. |
| Additional 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 | \$48,941.00 |
| | |

Congestion Drivers

None

Existing Flowgates

| FG # | From Bus No. | From Bus Name | To Bus No. | To Bus Name | СКТ | Voltage | TO Zone | Analysis type |
|---------|--------------|---------------|------------|-------------|-----|---------|---------|--------------------------|
| N2-SLD8 | 313721 | 6BUTTERMILK | 313729 | 6CUMULUS | 1 | 230 | 345 | N-1-1 Load Drop (summer |
| N2-WLD4 | 313721 | 6BUTTERMILK | 313729 | 6CUMULUS | 1 | 230 | 345 | N-1-1 Load Drop (winter) |

New Flowgates

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

Financial Information

| Capital spend start date | 10/2023 |
|------------------------------|---------|
| Construction start date | 09/2025 |
| Project Duration (In Months) | 26 |

Additional comments

For this proposal, Dominion seeks to be the designated entity to construct, own, operate, maintain and finance the Project.