

# Charlottesville Rebuild and Greenfield Cismont Station

## General Information

|  |  |
|--|--|
| Proposing entity name                                    | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |
| Company proposal ID                                      | Proposal 22  |
| PJM Proposal ID  | 813  |
| Project title  | Charlottesville Rebuild and Greenfield Cismont Station   |
| Project description                                      | Construct a new Cismont 230 kV 4 breaker ring bus station connecting the Charlottesville-Proffit line segment and the Hollymead-Cash's Corner line segment. Rebuild the ~16 mile single circuit 230 kV corridor from Charlottesville-Cismont-Cash's Corner-Gordonsville. |
| Project in-service date                                  | 05/2025  |
| Tie-line impact  | No   |
| Interregional project                                    | No   |
| Is the proposer offering a binding cap on capital costs? | No   |
| Additional benefits                                      | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |

## Project Components

1. Charlottesville - Cismont 230 kV Tline Upgrade
2. Cismont – Cash's Corner 230 kV Tline Upgrade
3. Cash's Corner – Gordonsville 230 kV Tline Upgrade
4. Charlottesville Station Upgrade
5. Cash's Corner Station Upgrade
6. Gordonsville Station Upgrade
7. Cismont New Station

8. Cismont Tie-ins

**Transmission Line Upgrade Component**

|                            |   |
|----------------------------|---|
| Component title            | Charlottesville - Cismont 230 kV Tline Upgrade  |
| Impacted transmission line | Charlottesville - Proffit 230 kV  |
| Point A                    | 314749 - 6CHARLVL   |
| Point B                    | 248111 - CISMONT  |
| Point C                    |   |
| Terrain description        | The Charlottesville to Cismont 230kV transmission line is located in Albemarle County, Virginia. The existing centerline has an elevation that averages 544 feet with a minimum of 312 feet and a maximum 666 feet. Starting from Charlottesville, the existing centerline land use is predominantly residential for approximately 1.5 miles and then pasture land with intermittent pockets of wooded areas until the proposed Cismont Substation. |

**Existing Line Physical Characteristics**

|                            |                                      |
|----------------------------|--------------------------------------|
| Operating voltage          | 230kV                                |
| Conductor size and type    | Unknown                              |
| Hardware plan description  | Ceramic I-String/V-String Insulators |
| Tower line characteristics | Wood H-Frames                        |

**Proposed Line Characteristics**

|              | <b>Designed</b>       | <b>Operating</b>         |
|--------------|-----------------------|--------------------------|
| Voltage (kV) | 230.000000            | 230.000000               |
|              | <b>Normal ratings</b> | <b>Emergency ratings</b> |
| Summer (MVA) | 800.000000            | 1150.000000              |
| Winter (MVA) | 900.000000            | 1300.000000              |

|  |  |
|--|--|
| Conductor size and type                            | 8.72 mile long single circuit 230kV AC overhead transmission line between the existing Charlottesville Station and the proposed Cismont Station. The new line will be constructed using 2-bundled 795 (26/7) ACSR Drake conductor  |
| Shield wire size and type                          | The new line will carry (2) 159 kcm ACSR (12/7) Guinea Shield Wires.   |
| Rebuild line length                                | This project requires rebuilding 8.72 miles of single circuit 230kV Line.  |
| Rebuild portion description                        | The incumbent will rebuild 8.7 miles of the existing 230kV transmission line from the Charlottesville Substation to the proposed Cismont Substation located in the City of Charlottesville and Albemarle County, Virginia. The existing transmission line crosses the Darden Towe Memorial Park, Southwest Mountains Rural Historic District, and several Virginia Outdoors Foundation conservation easements. Based on the project components and voltage, the incumbent would need to file for a Certificate of Public Convenience and Necessity (CPCN) with the Virginia State Corporation Commission (SCC) and obtain all necessary federal, state, and local permits. |
| Right of way                                       | The incumbent will utilize the existing right-of-way and supplement existing rights as needed in City of Charlottesville and Albemarle County, Virginia. None of the previously mentioned constraints (described in the previous question) should pose significant project obstacles if the incumbent can rebuild within the current right-of-way.   |
| Construction responsibility                        | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |
| Additional comments                                | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |
| <b>Component Cost Details - In Current Year \$</b> |  |
| Engineering & design                               | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |
| Permitting / routing / siting                      | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |
| ROW / land acquisition                             | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |
| Materials & equipment                              | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |
| Construction & commissioning                       | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |

|                                  |   |
|----------------------------------|---|
| Construction management          | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Overheads & miscellaneous costs  | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Contingency                      | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Total component cost             | \$29,668,800.00   |
| Component cost (in-service year) | \$33,392,495.78   |

### **Transmission Line Upgrade Component**

|                            |   |
|----------------------------|---|
| Component title            | Cismont – Cash's Corner 230 kV Tline Upgrade  |
| Impacted transmission line | Charlottesville - Cash's Corner 230 kV  |
| Point A                    | 248111 - CISMONT  |
| Point B                    | 314734 – 6CASHSCORNER   |
| Point C                    |   |
| Terrain description        | The Cismont to Cash's Corner 230kV transmission line is located in Albemarle County, Virginia. The existing centerline has an elevation that averages 543 feet with a minimum of 500 feet and a maximum 609 feet. The existing centerline land use is predominantly pasture land with intermittent pockets of wooded areas. |

### **Existing Line Physical Characteristics**

|                            |                                      |
|----------------------------|--------------------------------------|
| Operating voltage          | 230kV                                |
| Conductor size and type    | Unknown                              |
| Hardware plan description  | Ceramic I-String/V-String Insulators |
| Tower line characteristics | Wood H-Frames                        |

### **Proposed Line Characteristics**

|                 |                  |
|-----------------|------------------|
| <b>Designed</b> | <b>Operating</b> |
|-----------------|------------------|

|  |  |                          |
|--|--|--------------------------|
| Voltage (kV)                                       | 230.000000   | 230.000000               |
|  | <b>Normal ratings</b>  | <b>Emergency ratings</b> |
| Summer (MVA)                                       | 800.000000   | 900.000000               |
| Winter (MVA)                                       | 1150.000000  | 1300.000000              |
| Conductor size and type                            | This project requires construction of a 4.38 mile long 230kV AC overhead transmission line between the existing Cash's Corner Station and the proposed Cismont Station. The new line will be constructed using 2-bundled 795 (26/7) ACSR Drake conductor.  |                          |
| Shield wire size and type                          | The new line will carry (2) 159 kcm ACSR (12/7) Guinea Shield Wires.   |                          |
| Rebuild line length                                | This project requires rebuilding 4.38 miles of single circuit 230kV Line.  |                          |
| Rebuild portion description                        | The incumbent will rebuild 4.38 miles of the existing 230kV transmission line from the proposed Cismont Substation to the Cash's Corner Substation within Albemarle County, Virginia. The existing transmission line crosses the Southwest Mountains Rural Historic District and several Virginia Outdoors Foundation and Nature Conservancy conservation easements. Based on the project components and voltage, the incumbent would need to file for a Certificate of Public Convenience and Necessity (CPCN) with the Virginia State Corporation Commission (SCC) and obtain all necessary federal, state, and local permits. |                          |
| Right of way                                       | The incumbent will utilize the existing right-of-way and supplement existing rights as needed in Albemarle County. None of the previously mentioned constraints (described in the previous question) should pose significant project obstacles if the incumbent can rebuild within the current right-of-way.   |                          |
| Construction responsibility                        | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |                          |
| Additional comments                                | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |                          |
| <b>Component Cost Details - In Current Year \$</b> |  |                          |
| Engineering & design                               | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |                          |
| Permitting / routing / siting                      | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |                          |

|                                  |   |
|----------------------------------|---|
| ROW / land acquisition           | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Materials & equipment            | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Construction & commissioning     | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Construction management          | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Overheads & miscellaneous costs  | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Contingency                      | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Total component cost             | \$15,008,000.00   |
| Component cost (in-service year) | \$16,891,636.22   |

### **Transmission Line Upgrade Component**

|                            |  |
|----------------------------|--|
| Component title            | Cash's Corner – Gordonsville 230 kV Tline Upgrade  |
| Impacted transmission line | Cash's Corner - Gordonsville 230 kV  |
| Point A                    | 314734 – 6CASHSCORNER  |
| Point B                    | 314758 – 6GORDNVL  |
| Point C                    |  |
| Terrain description        | The Cash's Corner to Gordonsville 230kV transmission line is located in Albemarle County, Virginia. The existing centerline has an elevation that averages 523 feet with a minimum of 579 feet and a maximum 463 feet. The existing centerline land use is predominantly pasture land with intermittent pockets of wooded areas. |

### **Existing Line Physical Characteristics**

|                   |     |
|-------------------|-----|
| Operating voltage | 230 |
|-------------------|-----|

|                            |                                      |
|----------------------------|--------------------------------------|
| Conductor size and type    | Unknown                              |
| Hardware plan description  | Ceramic I-String/V-String Insulators |
| Tower line characteristics | Wood H-Frames                        |

**Proposed Line Characteristics**

|                             | <b>Designed</b>  | <b>Operating</b>         |
|-----------------------------|--|--------------------------|
| Voltage (kV)                | 230.000000   | 230.000000               |
|                             | <b>Normal ratings</b>  | <b>Emergency ratings</b> |
| Summer (MVA)                | 800.000000   | 900.000000               |
| Winter (MVA)                | 1150.000000  | 1300.000000              |
| Conductor size and type     | 2.78 miles long single circuit 230kV AC overhead transmission line between the existing Cash's Corner Station and the Gordonsville Station. The new line will be constructed using 2-bundled 795(26/7) ASCR Drake conductor.   |                          |
| Shield wire size and type   | The new line will carry (2) 159 kcm ACSR (12/7) Guinea Shield Wires.   |                          |
| Rebuild line length         | This project requires rebuilding 2.78 miles of single circuit 230kV Line.  |                          |
| Rebuild portion description | The incumbent will rebuild 2.78 miles of the existing 230kV transmission line from the Cash's Corner Substation to the Gordonsville Substation within Albemarle County, Virginia. The existing transmission line crosses the Southwest Mountains Rural Historic District and several Virginia Outdoors Foundation and Nature Conservancy conservation easements. Based on the project components and voltage, the incumbent would need to file for a Certificate of Public Convenience and Necessity (CPCN) with the Virginia State Corporation Commission (SCC) and obtain all necessary federal, state, and local permits. |                          |
| Right of way                | The incumbent will utilize the existing Cash's Corner- Gordonsville 230kV right-of-way and supplement existing rights as needed in Albemarle County, Virginia. None of the previously mentioned constraints (described in the previous question) should pose significant project obstacles if the incumbent can rebuild within the current right-of-way.   |                          |
| Construction responsibility | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.  |                          |

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|--|---|
| Additional comments                                | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| <b>Component Cost Details - In Current Year \$</b> |   |
| Engineering & design                               | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Permitting / routing / siting                      | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| ROW / land acquisition                             | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Materials & equipment                              | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Construction & commissioning                       | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Construction management                            | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Overheads & miscellaneous costs                    | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Contingency  | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Total component cost                               | \$9,553,600.00  |
| Component cost (in-service year)                   | \$10,752,660.97   |
| <b>Substation Upgrade Component</b>                |   |
| Component title                                    | Charlottesville Station Upgrade   |
| Substation name                                    | Charlottesville   |
| Substation zone                                    | Dominion  |



Substation upgrade scope At Charlottesville Station, upgrade to 3000A capability the existing line terminal equipment and associated buswork on the 230KV line position going to the new Cismont Station (existing Proffit DP Station).

## Transformer Information

None

New equipment description Replace the existing line trap on the 230KV line position going to the new Cismont Station (existing Proffit DP Station) with a 3000A unit. Replace all buswork associated with the 230KV line position going to the new Cismont Station (existing Proffit DP Station) with 3000A rated buswork.

Substation assumptions This proposal assumes that no new relay equipment is needed, all other existing station equipment and buswork is adequately sized, ground grid upgrades are not needed, all existing structures can be reused, and all necessary outages will be available.

Real-estate description The incumbent's existing Charlottesville Station fence will not require expansion or any additional real estate to be purchased for the project in City of Charlottesville, Virginia.

Construction responsibility The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Additional comments The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

## Component Cost Details - In Current Year \$

Engineering & design The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Permitting / routing / siting The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

ROW / land acquisition The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Materials & equipment The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Construction & commissioning The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Construction management The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

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|----------------------------------|---|
| Overheads & miscellaneous costs  | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Contingency                      | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Total component cost             | \$106,996.25  |
| Component cost (in-service year) | \$120,425.22  |

### **Substation Upgrade Component**

|                          |  |
|--------------------------|--|
| Component title          | Cash's Corner Station Upgrade  |
| Substation name          | Cash's Corner  |
| Substation zone          | Dominion   |
| Substation upgrade scope | At Cash's Corner Station, upgrade to 3000A capability all existing 230KV equipment and buswork associated with the 230KV transmission line through path. |

### **Transformer Information**

|                             |   |
|-----------------------------|---|
| None                        |   |
| New equipment description   | Replace two (2) existing group-operated line disconnect switches associated with the 230KV transmission line through path at Cash's Corner Station with 3000A units. Replace all buswork associated with the 230KV transmission line through path with 3000A rated buswork. |
| Substation assumptions      | This proposal assumes that no new relay equipment is needed, ground grid upgrades are not needed, all existing structures can be reused, and all necessary outages will be available.   |
| Real-estate description     | The incumbent's existing Cash's Corner Station fence will not require expansion or any additional real estate to be purchased for the project in Albemarle County, Virginia.  |
| Construction responsibility | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |
| Additional comments         | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |

### **Component Cost Details - In Current Year \$**

|                                  |   |
|----------------------------------|---|
| Engineering & design             | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Permitting / routing / siting    | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| ROW / land acquisition           | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Materials & equipment            | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Construction & commissioning     | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Construction management          | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Overheads & miscellaneous costs  | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Contingency                      | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Total component cost             | \$99,674.79   |
| Component cost (in-service year) | \$112,184.85  |

**Substation Upgrade Component**

|                          |  |
|--------------------------|--|
| Component title          | Gordonsville Station Upgrade   |
| Substation name          | Gordonsville   |
| Substation zone          | Dominion   |
| Substation upgrade scope | At Gordonsville Station, upgrade to 3000A capability the existing line terminal equipment and associated buswork on the 230KV line position going to the existing Cash's Corner Station. |

**Transformer Information**

None

|  |   |
|--|---|
| New equipment description                          | Replace the existing line trap and group-operated line disconnect switch on the 230KV line position going to the existing Cash's Corner Station with 3000A units. Replace all buswork associated with the 230KV line position going to the existing Cash's Corner Station with 3000A rated buswork. |
| Substation assumptions                             | This proposal assumes that no new relay equipment is needed, all other existing station equipment and buswork is adequately sized, ground grid upgrades are not needed, all existing structures can be reused, and all necessary outages will be available.   |
| Real-estate description                            | The incumbent's existing Gordonsville Station fence will not require expansion or any additional real estate to be purchased for the project in Albemarle County, Virginia.   |
| Construction responsibility                        | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |
| Additional comments                                | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |
| <b>Component Cost Details - In Current Year \$</b> |   |
| Engineering & design                               | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |
| Permitting / routing / siting                      | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |
| ROW / land acquisition                             | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |
| Materials & equipment                              | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |
| Construction & commissioning                       | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |
| Construction management                            | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |
| Overheads & miscellaneous costs                    | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |
| Contingency  | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.   |

|                                  |              |
|----------------------------------|--------------|
| Total component cost             | \$144,965.00 |
| Component cost (in-service year) | \$163,159.38 |

### Greenfield Substation Component

|                 |                     |
|-----------------|---------------------|
| Component title | Cismont New Station |
|-----------------|---------------------|

|                 |         |
|-----------------|---------|
| Substation name | Cismont |
|-----------------|---------|

|                        |  |
|------------------------|--|
| Substation description | Construct a 230KV greenfield station having a four (4) circuit breaker ring bus that will interconnect the existing 230KV Charlottesville line, the existing 230KV Proffit PD line, the existing 230KV Hollymead line, and the existing 230KV Cash’s Corner line. The station will be established on a 486ft x 624ft property approximately located at GPS coordinates (38.066644, -78.323442) and have a fenced area of 276ft x 364ft. It is assumed that this property will be available for purchase. |
|------------------------|--|

|                 |    |
|-----------------|----|
| Nominal voltage | AC |
|-----------------|----|

|                 |    |
|-----------------|----|
| Nominal voltage | AC |
|-----------------|----|

### Transformer Information

None

|                             |  |
|-----------------------------|--|
| Major equipment description | Construct a 230KV greenfield station having a four (4) circuit breaker ring bus consisting of 4-230KV, 3000A, 40KA circuit breakers; 8-230KV, 3000A group-operated CB disc. switches & steel str.; 4-sets of 3-230KV line CCVTs & steel str.; 4-230KV, 3000A group-operated line disc. switches; 4-230KV, 3000A line traps; 4-line tuners; 4-sets of 3-230KV line arresters; 2-230KV, 50KVA Power PTs, arresters, and steel str. for AC power and associated AC system; 125VDC battery & charger and associated DC system; four (4) H-frame style take-off tower steel str. for the 230KV lines; 2-shield pole steel str.; 2-shield wires; sixteen (16) 1-phase bus support str. for 19ft bus; six (6) 1-phase bus support str. for 27ft bus; eighteen (18) 1-phase bus support str. for 30ft bus; and associated bus jumpers, bus tubing & dampening cable, insulators, foundations, yard lighting, control cables, conduits, cable trench, and equipment grounding. Install associated relay equipment in a new 16ft x 27ft control house. The station will be established on a 486ft x 624ft property approximately located at GPS coordinates (38.066644, -78.323442) on agricultural land. The property will be graded for a fenced area of 276ft x 364ft and include 1,256ft of fence, 1-24ft gate, station stone, ground grid, and fence grounding. One (1) access road will be established. It is assumed that this property will be available for purchase, wetland mitigation will not be needed, and all necessary permits will be available. It is assumed that all necessary outages will be available. |
|-----------------------------|--|

**Normal ratings**

**Emergency ratings**

Summer (MVA)

1245.000000

1543.000000

Winter (MVA)

1245.000000

1543.000000

Environmental assessment

Land use at the proposed Cismont Station is undeveloped/residential. Based on review of the National Wetland Inventory and aerial photographs, streams and wetlands are not located near the proposed station footprint. The proposed site is located within the Southwest Mountains Rural Historic District and is located near several conservation easements. An accompanying kmz shows the study area and collected environmental constraints in the study area. The Proposing Entity would establish communication with agencies and stakeholders and complete the required environmental field studies including historic (i.e., archaeological and architectural) and natural resources (i.e., protected species and wetlands). The Proposing Entity would comply with all federal, state, and local requirements including storm water regulations (i.e., erosion and sediment control approvals). In addition, the Proposing Entity would file for a Certificate of Public Convenience and Necessity (CPCN) with the Virginia State Corporation Commission (SCC) and obtain all necessary federal, state, and local permits. Since the project is subject to SCC approval, agency coordination letters will be prepared to solicit input from federal, state, and local agencies or groups that may have interest in the project. The responses will be reviewed and applied to the preparation of the Siting Study, the Virginia Department of Environmental Quality (VDEQ) Supplement and the SCC Application. Post-construction storm water controls will be implemented for the station as needed.

## Outreach plan

Public outreach is a critical component to the Proposing Entity's siting process, so efforts include properly informing the public; federal, state and local agencies; local governments; and other key stakeholders on the need for, and benefits of, this project. The Proposing Entity's approach to public outreach is to always be candid and transparent, and to offer a variety of tools and means for impacted parties to engage with our staff. Public outreach also involves collecting information about landowner properties, which we consider during the final siting process. Proactive and interactive communication strategies and tools are used to assist siting efforts by soliciting comments and concerns from persons and entities affected by the project. These strategies and tools also assist in garnering support for the line siting process, as well as promote clear communication to landowners during land/ROW acquisition. The Proposing Entity plans to host one (1) public open house meeting in Charlottesville, VA to engage with the community and collect feedback on the project. We plan to invite landowners within 1,000 feet of the proposed substation and transmission line to attend the open house and provide them with an opportunity to review detailed maps and provide comments as it relates to the project and their property. These comments are a key component on refining the power line route. The Proposing Entity also plans to inform the public via news release and reserve a notice in the local newspaper so community members can participate. Also, the Proposing Entity plans to have an interactive website so the public can obtain the same information that's provided at the open house, submit their comments and receive regular and timely project updates. A required Certificate of Public Convenience and Necessity (CPCN) would be required. To comply with the CPCN requirements, the Proposing Entity will reserve an additional notice in the newspaper and send the filed application to affected landowners and public officials. Open houses consist of multiple informational stations set as a workshop-style event, designed to educate the public on different aspects of the project, including: purpose, need, engineering, structure type, and the Land/ROW acquisition process. While the Proposing Entity is confident in the route selected, it's important to engage the public before initiating land/ROW acquisition.

Land acquisition plan

The Project will be located off Stony Point Pass, 0.70 of a mile northwest of the intersection of Gordonsville Road in Albemarle County, Virginia on residential lands. The tabletop analysis found there were no public lands required for this Project. The private land use is residential as tabletop analysis found and was verified through the Albemarle County Clerk's Office which classified/assessed the land use as residential. The Proposing Entity will use proven land acquisition process & approach that are successfully employed on projects over the years. The Proposing Entity's initial land acquisition step is to verify current ownership by an examination of title, current property tax status, as well as document any liens, & or mortgages. The Proposing Entity will also research the status of the subsurface estate, whether or not it is severed from the surface. Once ownership is established, the Proposing Entity will negotiate with landowners based on the fair market value of the property needed for the ROW easements. Market data studies & appraisals, both general and for specific tracts, will be conducted to establish values & a basis for acquisition negotiations. The Proposing Entity will also pay for any crop damage and/or physical damage to property resulting from the construction and/or maintenance of the transmission line. Good Faith negotiations must be made with all landowners. Negotiations will be done in an ethical, non-confrontational and non-threatening manner with the landowners. The long-term relationship with the landowners is paramount & will be kept in mind in all negotiations and honesty, integrity & professionalism will be displayed at all times. Negotiations will continue as long as practical to reach a voluntary agreement. If, & only if, it becomes evident that a voluntary fee purchase agreement between the company & the property owner cannot be reached, & other viable alternatives do not exist, the company may exercise the right of eminent domain to secure required property through condemnation proceedings

Construction responsibility

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Additional comments

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

**Component Cost Details - In Current Year \$**

Engineering & design

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Permitting / routing / siting

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

ROW / land acquisition

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Materials & equipment

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.



|                                  |   |
|----------------------------------|---|
| Construction & commissioning     | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Construction management          | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Overheads & miscellaneous costs  | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Contingency                      | The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view. |
| Total component cost             | \$9,672,000.00  |
| Component cost (in-service year) | \$10,885,921.21   |

**Greenfield Transmission Line Component**

|                 |                   |
|-----------------|-------------------|
| Component title | Cismont Tie-ins   |
| Point A         | 248111 - CISMONT  |
| Point B         | 314772 - 6PROFFIT |
| Point C         | 314759 – 6HOLLYMD |

|                         | <b>Normal ratings</b>  | <b>Emergency ratings</b> |
|-------------------------|--|--------------------------|
| Summer (MVA)            | 586.000000   | 741.000000               |
| Winter (MVA)            | 586.000000   | 741.000000               |
| Conductor size and type | This project will be constructed using 2-bundled 795 (26/7) ACSR Drake conductor |                          |
| Nominal voltage         | AC   |                          |
| Nominal voltage         | The new line will be constructed and operated at 230kV.                          |                          |
| Line construction type  | Overhead   |                          |

#### General route description

The Proposing Entity reviewed locations for the two (2) 230kV loops in and out of the proposed Cismont Station. The locations of the tie lines were evaluated with respect to potential impacts on the surrounding community, environment, constructability, operations and maintenance considerations, and cost effectiveness. The proposed tie-line route is a direct 900-foot route that generally parallels the existing 230kV transmission line being rebuilt by the incumbent. The proposed route is located within the Southwest Mountains Rural Historic District and is located near several conservation easements. An accompanying kmz shows the study area and collected environmental constraints in the study area.

#### Terrain description

The Project terrain is flat residential lands in Albemarle County, Virginia for the two (2) 230kV lines to loop in and out of the proposed Cismont Station to the incumbent's Profitt and Hollymead facilities. Elevation along the proposed route ranges from approximately 548' to 560' above sea level, with an average elevation of 554'.

#### Right-of-way width by segment

The Project will be sited west of the proposed Cismont Station located off Stony Point Pass, 0.70 of a mile northwest of the intersection of Gordonsville Road in Albemarle County, Virginia on residential lands. The tabletop analysis found there were no public lands required for this Project. The private land use is residential as tabletop analysis found and was verified through the Albemarle County Clerk's Office which classified/assessed the land use as residential. The private land requirements include two (2) new 230kV lines, 900' each, to loop in & out of the proposed Cismont off of the existing incumbent's Profitt & Hollymead 230kV Line. The two (2) new 230kV lines will require a ROW of 130' and be located on lands that are predominantly residential and flat lands. The Proposing Entity will use proven land acquisition process & approach that are successfully employed on projects over the years. The Proposing Entity's initial land acquisition step is to verify current ownership by an examination of title, current property tax status, as well as document any liens, & or mortgages. The Proposing Entity will also research the status of the subsurface estate, whether or not it is severed from the surface. Once ownership is established, the Proposing Entity will negotiate with landowners based on the fair market value of the property needed for the ROW easements. Market data studies & appraisals, both general and for specific tracts, will be conducted to establish values & a basis for acquisition negotiations. The Proposing Entity will also pay for any crop damage and/or physical damage to property resulting from the construction and/or maintenance of the transmission line. Good Faith negotiations must be made with all landowners. Negotiations will be done in an ethical, non-confrontational and non-threatening manner with the landowners. The long-term relationship with the landowners is paramount & will be kept in mind in all negotiations and honesty, integrity & professionalism will be displayed at all times. Negotiations will continue as long as practical to reach a voluntary agreement. If, & only if, it becomes evident that a voluntary fee purchase agreement between the company & the property owner cannot be reached, & other viable alternatives do not exist, the company may exercise the right of eminent domain to secure required property through condemnation proceedings.

#### Electrical transmission infrastructure crossings

The Project in Albemarle County, Virginia will not involve any electrical transmission infrastructure crossings.

Civil infrastructure/major waterway facility crossing plan

The Project in Albemarle County, Virginia will not involve any civil infrastructure/major waterway facility crossings.

Environmental impacts

Based on review of the National Wetland Inventory and aerial photographs, there is one small stream and associated wetland area located under the proposed 230kV line. The small stream is located along the Stony Point Pass Rd. There will be a narrow strip of trees that will need to be cleared within the proposed right-of-way. To ensure appropriate due diligence, desktop studies and records reviews will be conducted for wetlands and streams, threatened and endangered species, and cultural and archaeological resources. Additionally, a field level stream/wetland delineation, habitat survey for species identified by the records review, and cultural/archaeological resource study will be performed for the line route. Following field studies, data will be digitized and provided to Engineering so that pole locations are sited to maximize avoidance of sensitive resources. If necessary, temporary access roads to pole locations will be identified and field surveyed for environmental and cultural impacts too.

Tower characteristics

Steel monopole structures

Construction responsibility

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Additional comments

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

**Component Cost Details - In Current Year \$**

Engineering & design

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Permitting / routing / siting

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

ROW / land acquisition

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Materials & equipment

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Construction & commissioning

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Construction management

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Overheads & miscellaneous costs

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Contingency

The redacted content contains proprietary and company confidential information that the Proposing Entity requests be held from public view.

Total component cost

\$1,176,000.00

Component cost (in-service year)

\$1,323,598.36

### Congestion Drivers

| CD # | From Bus No. | From Bus Name | To Bus No. | To Bus Name | CKT | Voltage | TO Zone | Analysis type     |
|------|--------------|---------------|------------|-------------|-----|---------|---------|-------------------|
| ME-5 | 314749       | 6CHARLVL      | 314772     | 6PROFFIT    | 1   | 230     | 345     | Market Efficiency |

### Existing Flowgates

None

### New Flowgates

None

### Financial Information

Capital spend start date

03/2023

Construction start date

05/2024

Project Duration (In Months)

26

### Additional comments

None