Line #2054 Rebuild - Charlottesville to Hollymeade Tap, 2-768.2 Option

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	624
Project title	Line #2054 Rebuild - Charlottesville to Hollymeade Tap, 2-768.2 Option
Project description	Rebuild 8.72-mile line #2054 section from Charlottesville to Hollymeade Tap structure 2054/340A, from 2-477 ACSR 90°C to 2-768.2 ACSS/TW 20/7 with MOT of 250°C (rating 1574 MVA).
Email	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Project in-service date	11/2024
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. Line # 2054, Charlottesville Substation to Hollymeade Tap structure # 34...
2. Charlottesville Substation Terminal Equipment
3. Hollymeade Substation Relay Resets

Transmission Line Upgrade Component

Component title	Line # 2054, Charlottesville Substation to Hollymeade Tap structure # 340A Rebuild

Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Impacted transmission line	2054
Point A	Charlottesville Substation
Point B	Hollymeade Tap, Line # 2054 structure # 340A
Point C	
Terrain description	Starting at Charlottesville Substation located on the eastern edge of the City of Charlottesville, the terrain of this existing right-of-way slopes down to the Rivanna River and rises back up as it crosses thru Darden-Towe Memorial Park. The terrain of the right-of-way then has some moderate slopes as it passes by a few established neighborhoods with trees buffering many of the homes. After leaving the suburban areas just outside of Charlottesville, the terrain starts out as predominately forested/vegetated areas outside of the existing right-of-way consisting of moderate to steep slopes.? As the right-of-way extends further east to more rural areas, the terrain faces a mix of some steep hills along with some flatter lands traversing through many acres of open space (residential and agricultural) and a few wooded areas approaching the Proffit Road DP. Prior to entering the substation, the ROW aerially crosses a Norfolk Southern Railroad easement. Civil: Darden Towe Memorial Park, Norfolk Southern Railroad (2) Waterbody: Rivanna River, Barn Branch, Chopping Bottom Branch, Flannigan Branch, North Fork Rivanna River

Existing Line Physical Characteristics

Operating voltage	230kV
Conductor size and type	2-477 ACSR, MOT - 90°C
Hardware plan description	Existing line hardware will not be reused.
Tower line characteristics	The existing line contains seventy-seven (77) direct embed wood and weathering steel poles. These structures will not be reused as they cannot provide the necessary ground clearance due to the conductor’s higher ampacity.

Proposed Line Characteristics

	Designed	**Operating**
Voltage (kV)	230.000000	230.000000
	Normal ratings	**Emergency ratings**

Summer (MVA)	1046.000000	1046.000000
Winter (MVA)	1160.000000	1160.000000
Conductor size and type	2-768 ACSS/TW/HS MOT – 250°C	
Shield wire size and type	DNO-11410 Optical Ground Wire (OPGW)	
Rebuild line length	8.72 miles	
Rebuild portion description	Proposal 99-2947-2 rebuilds the first half of Line # 2054 that goes from Charlottesville substation to Hollymeade Tap structure # 340A. By installing 8.72 miles of 2-768 ACSS/TW/HS with the maximum operating temperature of 250° C that portion of the line up to the tap to Hollymeade will have a rating of 1574 MVA. This project will rebuild utilizing Dominion 2017, 230kV standards. The conceptual estimate includes cost for the following: REMOVALS: 1. Remove seventy-seven (77) direct embed wood and weathering steel poles. 2. Remove 8.72 Miles of 2-477 ACSR from Charlottesville Sub Str. # 2054/418 to Str. # 2054/340A at the Hollymeade Tap. This will include spacers and dampers. 3. Remove 8.72 Miles of one 3#6 Alumoweld and one 49x49 mm2 fiber from Charlottesville Sub Str. # 2054/418 to Str. # 2054/340A at the Hollymeade Tap. STRUCTURE INSTALLATIONS: 1. Install sixty-five (65) Suspension Direct Embed H-frames with X-braces. 2. Install two (2) Double Deadend Anchor Direct Embed H-frame structures. 3. Install ten (10) Designed 3-Pole Engineered Structures. 4. Install new Deadend Hardware for the conductor and fiber on Existing Backbone Str. #2054/418 in Charlottesville Sub. 5. Install new Deadend Hardware for the conductor and fiber on Existing Double Deadend H-frame Str. #2054/340A near the tap to Hollymeade. 6. Install 8.72 Miles of 2-768 ACSS/TW/HS MOT – 250°C (new conductor rating of 1574 MVA) from Charlottesville Sub Str. # 2054/418 to Str.# 2054/340A at the Hollymeade Tap. This will include dampers and spacers. 7. Install 8.72 Miles of two (2) DNO-11410 fiber from Charlottesville Sub Str. # 2054/418 to Str. # 2054/340A at the Hollymeade Tap.	
Right of way	No new or additional right of way is required to complete 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	$16,355,500.00
Component cost (in-service year)	$17,516,741.00

Substation Upgrade Component

Component title	Charlottesville Substation Terminal Equipment
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Substation name	Charlottesville
Substation zone	363
Substation upgrade scope	Purchase and install: 1. Install riser conductors. 2. One (1) 230 kV, 3000 A center break switch. 3. Connectors on both ends of the risers along with spacers. 4. Miscellaneous conductors, connectors, insulators, and grounding materials as per engineering standards.

Transformer Information

None

New equipment description	One (1) 230 kV, 3000 A center break switch.
Substation assumptions	N/A
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	$136,931.00
Component cost (in-service year)	$146,653.00

Substation Upgrade Component

Component title	Hollymeade Substation Relay Resets
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Substation name	Hollymeade
Substation zone	193
Substation upgrade scope	System Protection Engineering Coordination Study and System Protection Technician relay resets.

Transformer Information

None

New equipment description	No new equipment required for this proposal.
Substation assumptions	No additional relay equipment required for this proposal.
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	$11,417.00
Component cost (in-service year)	$12,228.00

Congestion Drivers

None

Existing Flowgates

FG #	From Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
GD-S30	314749	6CHARLVL	314772	6PROFFIT	1	230	345	Summer Gen Deliv	Included

New Flowgates

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

Financial Information

Capital spend start date	01/2022
Construction start date	09/2023
Project Duration (In Months)	34

Additional Comments

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