New 765/500kV Switching Station - Vontay

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	247
Project title	New 765/500kV Switching Station - Vontay
Project description	Construct a new 765/500kV Vontay switching station and cut in Line 553 (Cunningham to Elmont), the North Anna to Midlothian 500kV line and the Joshua Falls to Yeats 765kV line. Replace Circuit Breakers (54265 and 553T564) and all associated equipment to Line #553 including Switches and CT with 5000A equipment at Cunningham substation.
Email	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Project in-service date	06/2032
Tie-line impact	Yes
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. New 765/500kV Switching Station - Vontay
2. 500 kV Cut-In - Cunningham to Elmont
3. 500 kV Cut-In - North Anna to Midlothian
4. 765 kV Cut-In - Joshua Falls to Yeat

Greenfield Substation Component

Component title	New 765/500kV Switching Station - Vontay
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Substation name	Vontay
Substation description	Purchase & Install Substation Material: 1. Three (3), 765/500kV, 750 MVA Single Phase Transformers 2. Two (2), 765kV, 50kAIC, 4000A, SF6 Circuit Breakers 3. Three (3), 765kV, 4000A Motor Operated Vertical Break Switches 4. Three (3), 765kV Coupling Capacitor Voltage Transformers, Relay Accuracy 5. Six (6), 476kV MCOV Station Class Surge Arresters 6. One (1), 765 kV, 150 MVAR Shunt Reactor 7. Six (6), 500kV, 63kAIC, 5000A, SF6 Circuit Breakers 8. Twelve (12), 500kV, 5000A Double End Break Switches 9. Twelve (12), 500kV Coupling Capacitor Voltage Transformers, Relay Accuracy 10. Six (6), 396kV, 318kV Station Class Surge Arresters 11. Approximately 7100 FT. of 6 in AL Bus and connectors 12. Two (2) 24’ X 50’ Control Enclosures including all relay and infrastructure panels 13. One (1) 14’ X 25’ Security Enclosure with security and communications panels 14. Station Batteries and Battery Chargers as required 15. AC Station Service System with one source connected to Transformers tertiary and second bank fed from local distribution source. 16. Approximately 5000 FT. of Level One Security Fence with Security Integrators and associated infrastructure 17. The equipment foundations and steel structures as required 18. Approximately 2,600 FT. of Cable Trench, conduits and control cables as required 19. Oil Containment System for 765/500 kV Transformer Bank and 765 Reactor Bank 20. Ground grid for the entire substation as per Dominion Energy Standards 21. Site preparation, grading and stormwater management system for the Substation 22. Conductor, connectors, insulators and grounding as per Dominion Energy Standard
Nominal voltage	AC
Nominal voltage	765/500

Transformer Information

	Name	Capacity (MVA)
Transformer	Transformer 1	2250

	High Side	Low Side	Tertiary
Voltage (kV)	765	500	

Major equipment description	1. Three (3), 765/500kV, 750 MVA Single Phase Transformers 2. Two (2), 765kV, 50kAIC, 4000A, SF6 Circuit Breakers 3. Three (3), 765kV, 4000A Motor Operated Vertical Break Switches 4. Three (3), 765kV Coupling Capacitor Voltage Transformers, Relay Accuracy 5. Six (6), 476kV MCOV Station Class Surge Arresters 6. One (1), 765 kV, 150 MVAR Shunt Reactor 7. Six (6), 500kV, 63kAIC, 5000A, SF6 Circuit Breakers 8. Twelve (12), 500kV, 5000A Double End Break Switches 9. Twelve (12), 500kV Coupling Capacitor Voltage Transformers, Relay Accuracy 10. Six (6), 396kV, 318kV Station Class Surge Arresters 11. Approximately 7100 FT. of 6 in AL Bus and connectors 12. Two (2) 24’ X 50’ Control Enclosures including all relay and infrastructure panels 13. One (1) 14’ X 25’ Security Enclosure with security and communications panels 14. Station Batteries and Battery Chargers as required 15. AC Station Service System with one source connected to Transformers tertiary and second bank fed from local distribution source.	
	Normal ratings	Emergency ratings
Summer (MVA)	2280.000000	2620.000000
Winter (MVA)	2647.000000	2920.000000
Environmental assessment	Refer to Real Estate and Permitting Plans.	
Outreach plan	Refer to Real Estate and Permitting Plans.	
Land acquisition plan	Refer to Real Estate and Permitting Plans.	
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	$217,759,440.01
Component cost (in-service year)	$233,220,360.00

Transmission Line Upgrade Component

Component title	500 kV Cut-In - Cunningham to Elmont
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Impacted transmission line	553
Point A	Cunningham
Point B	Elmont
Point C	
Terrain description	The terrain is characterized by a gently rolling, picturesque terrain, nestled in Hanover County according to Joyner Fine Properties}. It's part of Virginia's Piedmont region, which features rolling foothills and river valleys.

Existing Line Physical Characteristics

Operating voltage	500
Conductor size and type	NA
Hardware plan description	New Hardware will be installed for cut-in
Tower line characteristics	New structures will be installed for 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	1351 ACSS/TW/HS	
Shield wire size and type	(2) DNO-10110 shield wire	
Rebuild line length	0.25	
Rebuild portion description	Permanent Facilities to be Installed 1. (2) 500 kV SC Steel DDE 3-Pole Structures 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	
Right of way	Existing ROW will be used.	
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)	$7,160,823.81	

Transmission Line Upgrade Component

Component title	500 kV Cut-In - North Anna to Midlothian
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Impacted transmission line	North Anna to Midlothian
Point A	Cunningham
Point B	Elmont
Point C	
Terrain description	The terrain is characterized by a gently rolling, picturesque terrain, nestled in Hanover County according to Joyner Fine Properties}. It's part of Virginia's Piedmont region, which features rolling foothills and river valleys.
Existing Line Physical Characteristics	
Operating voltage	500
Conductor size and type	NA
Hardware plan description	New Hardware will be installed for cut-in
Tower line characteristics	New structures will be installed for 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	1351 ACSS/TW/HS	

Shield wire size and type	(2) DNO-10110 shield wire
Rebuild line length	0.25
Rebuild portion description	Permanent Facilities to be Installed 1. (2) 500 kV SC Steel DDE 3-Pole Structures 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
Right of way	Existing ROW will be used.
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)	$7,160,823.81

Transmission Line Upgrade Component

Component title	765 kV Cut-In - Joshua Falls to Yeat
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Impacted transmission line	Joshua Falls to Yeat

Point A	Joshua Falls
Point B	Yeat
Point C	
Terrain description	The terrain is characterized by a gently rolling, picturesque terrain, nestled in Hanover County according to Joyner Fine Properties}. It's part of Virginia's Piedmont region, which features rolling foothills and river valleys.
Existing Line Physical Characteristics	
Operating voltage	765
Conductor size and type	NA
Hardware plan description	New Hardware will be installed for cut-in
Tower line characteristics	New structures will be installed for cut-in
Proposed Line Characteristics	

	Designed	Operating
Voltage (kV)	765.000000	765.000000
	Normal ratings	Emergency ratings
Summer (MVA)	0.000000	0.000000
Winter (MVA)	0.000000	0.000000

Conductor size and type	6-795 ACSR
Shield wire size and type	(2) DNO-10110 shield wire
Rebuild line length	0.25
Rebuild portion description	Permanent Facilities to be Installed 1. (2) 765kV Deadend Structures 2. (1) 765kV Backbone Structure 3. 0.25 miles of 6-795 ACSR 3-Phase Conductor 4. 0.25 miles of DNO-10100 OPGW
Right of way	Existing ROW will be used.

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	$8,357,637.50
Component cost (in-service year)	$8,951,030.00

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	06/2029
Project Duration (In Months)	77

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. New 765/500kV Switching Station - Vontay - Dominion
2. 500 kV Cut-In - Cunningham to Elmont - Dominion
3. 500 kV Cut-In - North Anna to Midlothian - Dominion
4. 765 kV Cut-In - Joshua Falls to Yeat - 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