

Yeat - Vontay

General Information

Proposing entity name	Company confidential and proprietary information
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Company confidential and proprietary information
Company proposal ID	Company confidential and proprietary information
PJM Proposal ID	300
Project title	Yeat - Vontay
Project description	This proposal includes the following major system components: Yeat 765kV station expansion including 1 765kV CB's. A new 70 mile 500kV line built to 765kV standards from Yeat to the new Vontay 500kV station. Vontay station will include 8 500kV breakers. This station will cut in the Cunningham – Elmont 500kV line and the North Anna - Midlothian 500kV line. The 765kV line is assumed utilizing 6 bundled 795 ACSR.
Email	Company confidential and proprietary information
Project in-service date	12/2030
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	Company confidential and proprietary information

Project Components

1. Vontay Station Greenfield Station
2. Vontay Cut-in lines
3. Yeat - Vontay 500 kV line

4. Yeat Station

Greenfield Substation Component

Component title	Vontay Station Greenfield Station	
Project description	Company confidential and proprietary information	
Substation name	Vontay Station	
Substation description	Construct an 8-breaker 500 kV station at Vontay using a “breaker and a half” configuration	
Nominal voltage	AC	
Nominal voltage	500	
Transformer Information		
None		
Major equipment description	Construct an 8-breaker 500 kV station at Vontay using a “breaker and a half” configuration	
	Normal ratings	Emergency ratings
Summer (MVA)	3814.000000	5149.000000
Winter (MVA)	4825.000000	5848.000000
Environmental assessment	Land use for greenfield Vontay substation is flat rural forested/timber landscape. The substation will lie adjacent and outside FEMA-mapped floodplains and/or floodways and NWI-mapped wetlands primarily adjacent to streams and low-lying areas. Based on existing aerial photography, the proposed greenfield Vontay substation likely has unmapped wetland or drainage features. Timing of construction will be executed in accordance with state and federal agencies criteria as needed. Desktop studies and record reviews for the station and line route will be conducted for wetlands and streams, hazardous materials, and cultural resources. Following field studies, data will be digitized and provided to engineering so that pole locations and the station is sited to maximize avoidance of sensitive resources. For example, poles will be placed outside of or span wetlands, streams, and floodplains to the greatest extent possible. Existing access and roads will be utilized to access pole locations. If necessary, temporary access roads to pole locations will be identified and field surveyed for environmental and cultural resources and will be adjusted to avoid or minimize impacts.	

Outreach plan	Public outreach is a critical component to the Proposing Entity’s siting process, so efforts will 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 be always candid and transparent, and to offer a variety of tools and means for directly impacted parties to engage with our staff. The Proposing Entity will provide development updates to local government officials, key stakeholders, and impacted parties as the Project progresses. Public outreach also will involve collecting information about landowner properties and communicating with directly affected landowners during the final siting process.
Land acquisition plan	The proposed greenfield Vontay substation will be 43 acres in size and located on undeveloped flat forested/timber land in rural Hanover County, Virginia. The proposed station will be purchased in fee.
Construction responsibility	Company confidential and proprietary information
Benefits/Comments	Company confidential and proprietary information
Component Cost Details - In Current Year \$	
Engineering & design	Company confidential and proprietary information
Permitting / routing / siting	Company confidential and proprietary information
ROW / land acquisition	Company confidential and proprietary information
Materials & equipment	Company confidential and proprietary information
Construction & commissioning	Company confidential and proprietary information
Construction management	Company confidential and proprietary information
Overheads & miscellaneous costs	Company confidential and proprietary information
Contingency	Company confidential and proprietary information
Total component cost	\$51,128,558.00
Component cost (in-service year)	\$57,545,641.00
Greenfield Transmission Line Component	
Component title	Vontay Cut-in lines

Project description	Company confidential and proprietary information	
Point A	Cunningham /North Anna	
Point B	Elmont/Midlothian	
Point C		
	Normal ratings	Emergency ratings
Summer (MVA)	3814.000000	5149.000000
Winter (MVA)	4825.000000	5848.000000
Conductor size and type	The new cut in lines will be constructed using a bundled conductor to meet/exceed SN/SE WN/WE ratings stated above.	
Nominal voltage	AC	
Nominal voltage	500	
Line construction type	Overhead	
General route description	The 500 kV tie-ins will be approximately 0.1-mile for each leaving the proposed Vontay Substation in Hanover County, Virginia.	
Terrain description	The topography for the 500 kV tie-ins is flat forested/timber land in Hanover County, Virginia.	
Right-of-way width by segment	The 500 kV tie-ins ROW will be 175 feet in width and will parallel/cross existing transmission line rights-of-way and minimizes potential impacts to the natural and human environments.	
Electrical transmission infrastructure crossings	The tie-ins lines will not cross or impact existing electrical transmission infrastructure crossings.	
Civil infrastructure/major waterway facility crossing plan	The tie-ins lines will not cross or impact existing civil infrastructure/major waterway facility crossings.	
Environmental impacts	The tie-ins lines have undergone a robust siting analysis.	
Tower characteristics	N/A	
Construction responsibility	Company confidential and proprietary information	
Benefits/Comments	Company confidential and proprietary information	

Component Cost Details - In Current Year \$

Engineering & design	Company confidential and proprietary information
Permitting / routing / siting	Company confidential and proprietary information
ROW / land acquisition	Company confidential and proprietary information
Materials & equipment	Company confidential and proprietary information
Construction & commissioning	Company confidential and proprietary information
Construction management	Company confidential and proprietary information
Overheads & miscellaneous costs	Company confidential and proprietary information
Contingency	Company confidential and proprietary information
Total component cost	\$8,600,000.00
Component cost (in-service year)	\$9,679,376.00

Greenfield Transmission Line Component

Component title	Yeat - Vontay 500 kV line
Project description	Company confidential and proprietary information
Point A	Yeat Station
Point B	Vontay Station
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	3814.000000	5149.000000
Winter (MVA)	4825.000000	5848.000000
Conductor size and type	6 bundle "Tern" 795kCM ACSR	

Nominal voltage	AC
Nominal voltage	500
Line construction type	Overhead
General route description	The Proposing Entity assessed environmental and land use constraints and opportunities within an area that included the greenfield Vontay substation and the greenfield Yeat substation as the two endpoints. The evaluation resulted in the Bid Route that extends approximately 54-miles of greenfield line through 6 counties (Hanover, Louisa, Spotsylvania, Orange, Culpeper, and Fauquier) in Virginia. The 500kV line exits the greenfield Vontay substation from the east, then travels in a predominantly northerly direction, utilizing existing ROW as the existing 500kV line will be rebuilt in a double-circuit configuration, until it reaches the Yeat substation from the south. No habitable structures are present within the proposed ROW. Overall, the Route selected is the most direct route between the two existing substations and has the least overall impact to land use and environmental resources based on the Proposing Entity's qualitative review. The Route significantly reduces the number of new access roads, reducing overall constructability impacts.
Terrain description	The topography for the greenfield Vontay-Yeat 500kV line is relatively hilly. Land use in the area encompasses mostly agricultural and residential parcels in rural Virginia. The line crosses low density developed areas, a significant amount of highly vegetated (wooded) rural land, state/county highways, railroads, water crossings, and existing utilities.
Right-of-way width by segment	The Vontay – Yeat 500kV greenfield route ROW will be 175 feet in width and will parallel/cross existing rights-of-way to include interstates, roads, railroads, existing transmission lines/utilities, existing pipelines and best minimizes potential impacts to the natural and human environments. A majority of the ROW is already acquired, however some expansion of the existing corridor may be necessary.
Electrical transmission infrastructure crossings	37.8848, -77.7898, 38.0617, -77.8004, 38.2378, -77.7830, 38.5059, -77.7185, In addition to these crossings, it is assumed there are additional, and smaller kV lines, being crossed along areas such as major roadways.
Civil infrastructure/major waterway facility crossing plan	The greenfield Vontay-Yeat 500 kV line greenfield route crosses & runs parallel with multiple railroads, numerous water facilities, and large underground pipelines. The most notable water crossings are the Rappahannock River located at Lat: 38°25'35.71"N, Lon: 77°45'00.57"W, the Rapidan River located at Lat: 38°23'26.97"N, Lon: 77°45'47.36"W, Lake Anna located at Lat: 38°04'47.96"N, Lon: 77°47'52.99"W, Lake Anna located at Lat: 38°02'01.26"N, Lon: 77°47'39.47"W, and Lake Anna located at Lat: 38°00'29.01"N, Lon: 77°47'25.80"W. The CSX railroad crossing is located at Lat: 38°03'31.15"N, Lon: 77°47'56.81"W. The Buckingham Branch Railroad Company crossing is located at Lat: 37°57'53.21"N, Lon: 77°46'56.21"W. The transmission line runs parallel with and crosses over several pipelines frequently.

Environmental impacts	Land use along the Bid Route corridor is a predominantly rural agricultural landscape with pockets of residential development. The route intersects FEMA-mapped floodplains and/or floodways and NWI-mapped wetlands primarily adjacent to streams and low-lying areas. Named and unnamed streams also bisect the route in various locations. Based on existing aerial photography, the proposed route likely has unmapped wetland or drainage features. Timing of construction will be executed in accordance with state and federal agencies criteria as needed. Desktop studies and record reviews for the station parcel and line route will be conducted for wetlands and streams, hazardous materials, and cultural resources. Following field studies, data will be digitized and provided to engineering so that pole locations and the station is sited to maximize avoidance of sensitive resources. For example, poles will be placed outside of or span wetlands, streams, and floodplains to the greatest extent possible. Existing access and roads will be utilized to access pole locations. If necessary, temporary access roads to pole locations will be identified and field surveyed for environmental and cultural resources and will be adjusted to avoid or minimize impacts.
Tower characteristics	This 500kV line utilizes a combination of self-supporting and guyed-V lattice tower construction that is horizontally configured.
Construction responsibility	Company confidential and proprietary information
Benefits/Comments	Company confidential and proprietary information
Component Cost Details - In Current Year \$	
Engineering & design	Company confidential and proprietary information
Permitting / routing / siting	Company confidential and proprietary information
ROW / land acquisition	Company confidential and proprietary information
Materials & equipment	Company confidential and proprietary information
Construction & commissioning	Company confidential and proprietary information
Construction management	Company confidential and proprietary information
Overheads & miscellaneous costs	Company confidential and proprietary information
Contingency	Company confidential and proprietary information
Total component cost	\$314,999,999.00
Component cost (in-service year)	\$354,535,275.00

Substation Upgrade Component

Component title	Yeat Station
Project description	Company confidential and proprietary information
Substation name	Yeat Station
Substation zone	Dominion
Substation upgrade scope	Add one 500 kV breaker to accommodate a new line
Transformer Information	
None	
New equipment description	500 kV breaker
Substation assumptions	The existing AC station service is assumed to be sufficient to accommodate the new substation equipment
Real-estate description	All necessary land rights are acquired.
Construction responsibility	Company confidential and proprietary information
Benefits/Comments	Company confidential and proprietary information
Component Cost Details - In Current Year \$	
Engineering & design	Company confidential and proprietary information
Permitting / routing / siting	Company confidential and proprietary information
ROW / land acquisition	Company confidential and proprietary information
Materials & equipment	Company confidential and proprietary information
Construction & commissioning	Company confidential and proprietary information
Construction management	Company confidential and proprietary information
Overheads & miscellaneous costs	Company confidential and proprietary information

Contingency	Company confidential and proprietary information
Total component cost	\$7,000,000.00
Component cost (in-service year)	\$7,878,562.00

Congestion Drivers

None

Existing Flowgates

None

New Flowgates

Company confidential and proprietary information

Financial Information

Capital spend start date	02/2025
Construction start date	06/2027
Project Duration (In Months)	70

Cost Containment Commitment

Cost cap (in current year)	Company confidential and proprietary information
Cost cap (in-service year)	Company confidential and proprietary information

Components covered by cost containment

1. Vontay Station Greenfield Station - Dominion
2. Yeat - Vontay 500 kV line - 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	Company confidential and proprietary information
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?	Company confidential and proprietary information

Additional Comments

None