Rocky Stage Energy Connect

General Information

Proposing entity name	CONFIDENTIAL INFORMATION
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	CONFIDENTIAL INFORMATION
Company proposal ID	CONFIDENTIAL INFORMATION
PJM Proposal ID	717
Project title	Rocky Stage Energy Connect
Project description	765 & 500 kV greenfield substations and greenfield transmission lines solution.
Email	CONFIDENTIAL INFORMATION
Project in-service date	06/2030
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	Yes
Additional benefits	CONFIDENTIAL INFORMATION

Project Components

1. Rocky Ford 765kV Substation
2. Stage 765/500kV Substation
3. 500kV Cunningham Substation Expansion
4. 500kV Morrisville Substation Expansion
5. Rocky Ford to Stage 765kV Transmission Line
6. Stage to Cunningham 500kV Transmission Line

7. Cunningham to Morrisville 500kV Transmission Line

8. 765kV Axton to Jackson Ferry Transmission Line Loop-In

9. 765kV Joshua Falls to Cloverdale 765kV Transmission Line Loop-In

Greenfield Substation Component

Component title	Rocky Ford 765kV Substation
Project description	CONFIDENTIAL INFORMATION
Substation name	Rocky Ford
Substation description	The Rocky Ford Substation will consist of a 3-position double breaker 765kV yard and a 300 MVAR line reactor.
Nominal voltage	AC
Nominal voltage	765

Transformer Information

None

Major equipment description	765 kV double breaker configuration with three (3) positions, seven (7) circuit breakers, 300 MVAR line reactor, and associated equipment.

	Normal ratings	Emergency ratings
Summer (MVA)	5974.000000	7584.000000
Winter (MVA)	5974.000000	7584.000000

Environmental assessment	The Project will require a Certificate of Public Convenience and Necessity (“CPCN”) from the Virginia State Corporation Commission (“SCC”) (VA Code §§ 56-265.2, 56-46.1(B)). The proposed Project was sited to avoid and minimize impacts to areas of environmental concern, including wetlands and waters, based on GIS data. It is possible that the Project cannot avoid impacts to a limited number of wetlands and waterways, in which case impacts will be minimized to the extent practicable. Proposer will engage a qualified consultant to conduct a delineation of wetlands and waters in order to establish jurisdictional boundaries of aquatic resources in the Project area, the results of which will be used to refine Project siting, if necessary, and determine permitting requirements. The USACE will review the Project for compliance with Section 106 of the National Historic Preservation Act (16 USC §40 et seq.) and Section 7 of the Federal Endangered Species Act [16 USC §1536(a)(2)], in coordination with the Virginia State Historic Preservation Office and U.S. Fish and Wildlife Service, respectively. In addition to the permits described above, Proposer has identified other permits which may be required for the construction of the Project. Proposer considers these other permits to be minor due to the more limited effort to prepare applications and the less intensive application review processes which follow. These include permits related to Federal Aviation Administration airspace clearance and stormwater/erosion and sedimentation control (i.e., Pollutant Discharge Elimination System Construction General Permit). Post-award, Proposer will consult with local jurisdictions and state and federal permitting agencies to confirm permitting requirements, discuss the types and scopes of environmental surveys and studies required for permitting, and discuss appropriate avoidance/mitigation measures.
Outreach plan	Proposer will identify and engage stakeholders, such as community officials and landowners within the Project area, early in the process and maintain an active dialogue throughout. Public meetings may be held to offer a venue for landowners and other interested community members to learn about the Project and for Proposer to learn more about specific landowner and community preferences. Proposer plans to make information available on its website and provide notification of public meetings to landowners within the Project area as required in the siting approval process.
Land acquisition plan	The Project will be located on new right-of-way to be purchased by Proposer. In addition, Proposer will procure any necessary easement required to access the site. Proposer will assign a Right-of-Way Manager to oversee all real estate related activities for the Project including appraisals, title work, surveying, land acquisition, and restoration. A right-of-way agent will contact the property owner(s) in person to explain the Project and, as necessary, secure permission to conduct surveys, archaeological studies, etc. The right-of-way agent will be the primary point of contact to negotiate with the property owner to acquire the substation site and any required easements on a mutually agreeable basis. To the extent that negotiations reach an impasse, Proposer will be able to pursue eminent domain. The right-of-way agents will continue to act as a liaison with the property owners during construction and through the restoration process.
Construction responsibility	CONFIDENTIAL INFORMATION
Benefits/Comments	CONFIDENTIAL INFORMATION

Component Cost Details - In Current Year $

Engineering & design	CONFIDENTIAL INFORMATION
Permitting / routing / siting	CONFIDENTIAL INFORMATION
ROW / land acquisition	CONFIDENTIAL INFORMATION
Materials & equipment	CONFIDENTIAL INFORMATION
Construction & commissioning	CONFIDENTIAL INFORMATION
Construction management	CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	CONFIDENTIAL INFORMATION
Contingency	CONFIDENTIAL INFORMATION
Total component cost	$49,997,402.00
Component cost (in-service year)	$55,618,555.00

Greenfield Substation Component

Component title	Stage 765/500kV Substation
Project description	CONFIDENTIAL INFORMATION
Substation name	Stage
Substation description	The Stage Substation will consist of a 5-position double breaker 765kV yard, two (2) 765/500kV transformers, and 3-position ring bus 500kV yard.
Nominal voltage	AC
Nominal voltage	765/500

Transformer Information

	Name	Capacity (MVA)
Transformer	Transformer #1	2179

	High Side	Low Side	Tertiary
Voltage (kV)	765	500/230	

	Name	Capacity (MVA)
Transformer	Transformer #2	2179

	High Side	Low Side	Tertiary
Voltage (kV)	765	500	

Major equipment description

765 kV double breaker configuration with five (5) positions, ten (10) 765kV circuit breakers, two (2) 765/500kV transformers, three (3) 500kV circuit breakers, and associated equipment.

	Normal ratings	Emergency ratings
Summer (MVA)	5974.000000	7584.000000
Winter (MVA)	5974.000000	7584.000000

Environmental assessment	The Project will require a Certificate of Public Convenience and Necessity (“CPCN”) from the Virginia State Corporation Commission (“SCC”) (VA Code §§ 56-265.2, 56-46.1(B)). The proposed Project was sited to avoid and minimize impacts to areas of environmental concern, including wetlands and waters, based on GIS data. It is possible that the Project cannot avoid impacts to a limited number of wetlands and waterways, in which case impacts will be minimized to the extent practicable. Proposer will engage a qualified consultant to conduct a delineation of wetlands and waters in order to establish jurisdictional boundaries of aquatic resources in the Project area, the results of which will be used to refine Project siting, if necessary, and determine permitting requirements. The USACE will review the Project for compliance with Section 106 of the National Historic Preservation Act (16 USC §40 et seq.) and Section 7 of the Federal Endangered Species Act [16 USC §1536(a)(2)], in coordination with the Virginia State Historic Preservation Office and U.S. Fish and Wildlife Service, respectively. In addition to the permits described above, Proposer has identified other permits which may be required for the construction of the Project. Proposer considers these other permits to be minor due to the more limited effort to prepare applications and the less intensive application review processes which follow. These include permits related to Federal Aviation Administration airspace clearance and stormwater/erosion and sedimentation control (i.e., Pollutant Discharge Elimination System Construction General Permit). Post-award, Proposer will consult with local jurisdictions and state and federal permitting agencies to confirm permitting requirements, discuss the types and scopes of environmental surveys and studies required for permitting, and discuss appropriate avoidance/mitigation measures.
Outreach plan	Proposer will identify and engage stakeholders, such as community officials and landowners within the Project area, early in the process and maintain an active dialogue throughout. Public meetings may be held to offer a venue for landowners and other interested community members to learn about the Project and for Proposer to learn more about specific landowner and community preferences. Proposer plans to make information available on its website and provide notification of public meetings to landowners within the Project area as required in the siting approval process.
Land acquisition plan	The Project will be located on new right-of-way to be purchased by Proposer. In addition, Proposer will procure any necessary easement required to access the site. Proposer will assign a Right-of-Way Manager to oversee all real estate related activities for the Project including appraisals, title work, surveying, land acquisition, and restoration. A right-of-way agent will contact the property owner(s) in person to explain the Project and, as necessary, secure permission to conduct surveys, archaeological studies, etc. The right-of-way agent will be the primary point of contact to negotiate with the property owner to acquire the substation site and any required easements on a mutually agreeable basis. To the extent that negotiations reach an impasse, Proposer will be able to pursue eminent domain. The right-of-way agents will continue to act as a liaison with the property owners during construction and through the restoration process.
Construction responsibility	CONFIDENTIAL INFORMATION
Benefits/Comments	CONFIDENTIAL INFORMATION

Component Cost Details - In Current Year $

Engineering & design	CONFIDENTIAL INFORMATION
Permitting / routing / siting	CONFIDENTIAL INFORMATION
ROW / land acquisition	CONFIDENTIAL INFORMATION
Materials & equipment	CONFIDENTIAL INFORMATION
Construction & commissioning	CONFIDENTIAL INFORMATION
Construction management	CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	CONFIDENTIAL INFORMATION
Contingency	CONFIDENTIAL INFORMATION
Total component cost	$169,027,994.00
Component cost (in-service year)	$188,031,624.00

Substation Upgrade Component

Component title	500kV Cunningham Substation Expansion
Project description	CONFIDENTIAL INFORMATION
Substation name	Cunningham
Substation zone	366
Substation upgrade scope	The Cunningham 500 kV Substation expansion consists of adding two (2) double breaker double bus position to the existing 500 kV substation.

Transformer Information

None

New equipment description	500 kV Circuit Breakers (4) and associated equipment to create two (2) new 500 kV position.
Substation assumptions	The substation can be expanded to the southeast to accommodate the expansion.

Real-estate description	Additional real estate to the southeast is required for this component.
Construction responsibility	CONFIDENTIAL INFORMATION
Benefits/Comments	CONFIDENTIAL INFORMATION
Component Cost Details - In Current Year $	
Engineering & design	CONFIDENTIAL INFORMATION
Permitting / routing / siting	CONFIDENTIAL INFORMATION
ROW / land acquisition	CONFIDENTIAL INFORMATION
Materials & equipment	CONFIDENTIAL INFORMATION
Construction & commissioning	CONFIDENTIAL INFORMATION
Construction management	CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	CONFIDENTIAL INFORMATION
Contingency	CONFIDENTIAL INFORMATION
Total component cost	$15,983,761.00
Component cost (in-service year)	$17,767,567.00

Substation Upgrade Component

Component title	500kV Morrisville Substation Expansion
Project description	CONFIDENTIAL INFORMATION
Substation name	Morrisville
Substation zone	353
Substation upgrade scope	The Morrisville 500 kV Substation expansion consists of adding one (1) double breaker double bus position to the existing 500 kV substation.

Transformer Information

None

New equipment description	500 kV Circuit Breakers (2) and associated equipment to create one (1) new 500 kV position.
Substation assumptions	The substation can be expanded to the southeast to accommodate the expansion.
Real-estate description	Additional real estate to the southeast is required for this component.
Construction responsibility	CONFIDENTIAL INFORMATION
Benefits/Comments	CONFIDENTIAL INFORMATION
Component Cost Details - In Current Year $	
Engineering & design	CONFIDENTIAL INFORMATION
Permitting / routing / siting	CONFIDENTIAL INFORMATION
ROW / land acquisition	CONFIDENTIAL INFORMATION
Materials & equipment	CONFIDENTIAL INFORMATION
Construction & commissioning	CONFIDENTIAL INFORMATION
Construction management	CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	CONFIDENTIAL INFORMATION
Contingency	CONFIDENTIAL INFORMATION
Total component cost	$7,991,880.00
Component cost (in-service year)	$8,883,783.00

Greenfield Transmission Line Component

Component title	Rocky Ford to Stage 765kV Transmission Line
Project description	CONFIDENTIAL INFORMATION
Point A	Rocky Ford
Point B	Stage

Point C

	Normal ratings	Emergency ratings
Summer (MVA)	5974.000000	7584.000000
Winter (MVA)	5974.000000	7584.000000
Conductor size and type	Quad 1351.5kcmil "Martin" ACSR MA3	
Nominal voltage	AC	
Nominal voltage	765	
Line construction type	Overhead	
General route description	The route heads generally north away from the new Rocky Ford Substation and traverses woodlands and some farmland for approximately 71 miles before terminating at the new Stage Substation. The route crosses several existing transmission lines and the Roanoke River. There are no habitable structures within the right of way and route crosses 340 parcels. Based on desktop level data for mapped wetlands and floodplains, structures were sited such that there will be no permanent impact to these areas.	
Terrain description	The terrain for the route is largely characterized by rolling hills and numerous ridges lying between the mountain and coastal plain regions near the boundary with the Blue Ridge Mountains. The route traverses woodlands and some farmlands. Traditional methods of access and construction are feasible along the majority of the route. Alternative methods of access and construction will be considered as needed.	
Right-of-way width by segment	The new transmission line is approximately 71 miles in length with a right-of-way width planned to be 200 feet.	
Electrical transmission infrastructure crossings	Over Candlers Mountain to Rustburg 138 kV, Over Chatham to Gretna 69/115 kV, Over Gretna to Gladys 69/115 kV, Over Grit to Otter River 115 kV, Over Mt Airy Tap to Mt Airy 69/115 kV, Over Smith Mountain to East Danville 138 kV, Under Joshua Falls to Cloverdale 765 KV, Under Joshua Falls to Cloverdale 765 KV	

Civil infrastructure/major waterway facility crossing plan	The proposer will secure crossing and encroachment permits, authorizations and agreements for existing linear infrastructure crossed by the project. The proposer will coordinate with easement holders including; municipal and county roads; oil and gas pipelines; transmission lines, and local distribution utilities (power, sewer, water, gas, fiber, etc.) to not interfere with existing easement rights crossed by the project. The proposer will obtain occupation agreements from municipal and county jurisdictions to place transmission facilities over municipal and county roads. The proposer plans to secure crossing agreements with existing oil and gas pipelines and transmission lines.
Environmental impacts	The Project will require a Certificate of Public Convenience and Necessity (“CPCN”) from the Virginia State Corporation Commission (“SCC”) (VA Code §§ 56-265.2, 56-46.1(B)). The proposed Project was routed to avoid and minimize impacts to areas of environmental concern, including wetlands and waters, based on GIS data. Environmental impacts will be minimized by collocating the proposed transmission line along corridors of existing linear development to the maximum extent practicable. practicable. Proposer will engage a qualified consultant to conduct a delineation of wetlands and waters in order to establish jurisdictional boundaries of aquatic resources in the Project area, the results of which will be used to refine Project routing, if necessary, and determine permitting requirements. Any unavoidable, regulated impacts to regulated aquatic resources will be mitigated in accordance with applicable state and federal regulations. Further, aquatic resources that may be temporarily impacted during construction will be restored to pre-construction conditions in accordance with applicable state and federal permit conditions. It is possible that compensatory mitigation will be required to offset unavoidable permanent impacts to aquatic resources. The USACE will review the Project for compliance with Section 106 of the National Historic Preservation Act (16 USC §40 et seq.) and Section 7 of the Federal Endangered Species Act [16 USC §1536(a)(2)], in coordination with the Virginia State Historic Preservation Office and U.S. Fish and Wildlife Service, respectively. In addition to the permits described above, Proposer has identified other permits which may be required for the construction of the Project. Proposer considers these other permits to be minor due to the more limited effort to prepare applications and the less intensive application review processes which follow. These include permits related to Federal Aviation Administration airspace clearance, stormwater/erosion and sedimentation control (i.e., Pollutant Discharge Elimination System Construction General Permit), road crossings, and utility and railroad crossings. Post-award, Proposer will consult with local jurisdictions and state and federal permitting agencies to confirm permitting requirements, discuss the types and scopes of environmental surveys and studies required for permitting, and discuss appropriate avoidance/mitigation measures.
Tower characteristics	The towers will primarily consist of self-supported lattice towers in a horizontal configuration with drilled pier foundations.
Construction responsibility	CONFIDENTIAL INFORMATION
Benefits/Comments	CONFIDENTIAL INFORMATION
Component Cost Details - In Current Year $	

Engineering & design	CONFIDENTIAL INFORMATION
Permitting / routing / siting	CONFIDENTIAL INFORMATION
ROW / land acquisition	CONFIDENTIAL INFORMATION
Materials & equipment	CONFIDENTIAL INFORMATION
Construction & commissioning	CONFIDENTIAL INFORMATION
Construction management	CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	CONFIDENTIAL INFORMATION
Contingency	CONFIDENTIAL INFORMATION
Total component cost	$417,629,145.00
Component cost (in-service year)	$498,426,509.00

Greenfield Transmission Line Component

Component title	Stage to Cunningham 500kV Transmission Line
Project description	CONFIDENTIAL INFORMATION
Point A	Stage
Point B	Cunningham
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	4357.000000	5022.000000
Winter (MVA)	5155.000000	5802.000000

Conductor size and type	Triple Bundle 1272kcmil "Pheasant" ACSS/TW MA3
Nominal voltage	AC

Nominal voltage	500
Line construction type	Overhead
General route description	The route heads generally north away from the new Stage Substation and traverses woodlands and some farmland for approximately 59.5 miles before terminating at the existing Cunningham Substation. The route crosses two (2) transmission lines and crosses the James River. There are no habitable structures within the right of way and route crosses 224 parcels. Based on desktop level data for mapped wetlands and floodplains, structures were sited such that there will be no permanent impact to these areas.
Terrain description	The terrain for the route is largely characterized by rolling hills and numerous ridges lying between the mountain and coastal plain regions near the boundary with the Blue Ridge Mountains. The route traverses woodlands and some farmlands. Traditional methods of access and construction are feasible along the majority of the route. Alternative methods of access and construction will be considered as needed.
Right-of-way width by segment	The new transmission line is approximately 59.5 miles in length. The right-of-way width is planned to be 175 feet.
Electrical transmission infrastructure crossings	Over Bremo Bluff to Scottsville 138 kV, Over Bremo Bluff to Sherwood 115 kV
Civil infrastructure/major waterway facility crossing plan	The proposer will secure crossing and encroachment permits, authorizations and agreements for existing linear infrastructure crossed by the project. The proposer will coordinate with easement holders including; municipal and county roads; oil and gas pipelines; transmission lines, and local distribution utilities (power, sewer, water, gas, fiber, etc.) to not interfere with existing easement rights crossed by the project. The proposer will obtain occupation agreements from municipal and county jurisdictions to place transmission facilities over municipal and county roads. The proposer plans to secure crossing agreements with existing oil and gas pipelines and transmission lines.

Environmental impacts	The Project will require a Certificate of Public Convenience and Necessity (“CPCN”) from the Virginia State Corporation Commission (“SCC”) (VA Code §§ 56-265.2, 56-46.1(B)). The proposed Project was routed to avoid and minimize impacts to areas of environmental concern, including wetlands and waters, based on GIS data. Environmental impacts will be minimized by collocating the proposed transmission line along corridors of existing linear development to the maximum extent practicable. practicable. Proposer will engage a qualified consultant to conduct a delineation of wetlands and waters in order to establish jurisdictional boundaries of aquatic resources in the Project area, the results of which will be used to refine Project routing, if necessary, and determine permitting requirements. Any unavoidable, regulated impacts to regulated aquatic resources will be mitigated in accordance with applicable state and federal regulations. Further, aquatic resources that may be temporarily impacted during construction will be restored to pre-construction conditions in accordance with applicable state and federal permit conditions. It is possible that compensatory mitigation will be required to offset unavoidable permanent impacts to aquatic resources. The USACE will review the Project for compliance with Section 106 of the National Historic Preservation Act (16 USC §40 et seq.) and Section 7 of the Federal Endangered Species Act [16 USC §1536(a)(2)], in coordination with the Virginia State Historic Preservation Office and U.S. Fish and Wildlife Service, respectively. In addition to the permits described above, Proposer has identified other permits which may be required for the construction of the Project. Proposer considers these other permits to be minor due to the more limited effort to prepare applications and the less intensive application review processes which follow. These include permits related to Federal Aviation Administration airspace clearance, stormwater/erosion and sedimentation control (i.e., Pollutant Discharge Elimination System Construction General Permit), road crossings, and utility and railroad crossings. Post-award, Proposer will consult with local jurisdictions and state and federal permitting agencies to confirm permitting requirements, discuss the types and scopes of environmental surveys and studies required for permitting, and discuss appropriate avoidance/mitigation measures.
Tower characteristics	The towers will primarily consist of self-supported lattice towers with a single circuit delta configuration.
Construction responsibility	CONFIDENTIAL INFORMATION
Benefits/Comments	CONFIDENTIAL INFORMATION
Component Cost Details - In Current Year $	
Engineering & design	CONFIDENTIAL INFORMATION
Permitting / routing / siting	CONFIDENTIAL INFORMATION
ROW / land acquisition	CONFIDENTIAL INFORMATION
Materials & equipment	CONFIDENTIAL INFORMATION

Construction & commissioning	CONFIDENTIAL INFORMATION
Construction management	CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	CONFIDENTIAL INFORMATION
Contingency	CONFIDENTIAL INFORMATION
Total component cost	$297,631,734.00
Component cost (in-service year)	$355,213,586.00

Greenfield Transmission Line Component

Component title	Cunningham to Morrisville 500kV Transmission Line
Project description	CONFIDENTIAL INFORMATION
Point A	Cunningham
Point B	Morrisville
Point C	

	Normal ratings	Emergency ratings
Summer (MVA)	4357.000000	5022.000000
Winter (MVA)	5155.000000	5802.000000

Conductor size and type	Triple Bundle 1272kcmil "Pheasant" ACSS/TW MA3
Nominal voltage	AC
Nominal voltage	500
Line construction type	Overhead

General route description	The route heads generally north away from the existing Cunningham Substation and traverses woodlands and some farmland for approximately 71.6 miles before terminating at the existing Morrisville Substation. The route crosses nine (9) transmission lines and crosses the Rapidan and Rappahannock rivers. There are no habitable structures within the right of way and route crosses 408 parcels. Based on desktop level data for mapped wetlands and floodplains, structures were sited such that there will be no permanent impact to these areas.
Terrain description	The terrain for the route is largely characterized by rolling hills and numerous ridges lying between the mountain and coastal plain regions near the boundary with the Blue Ridge Mountains. The route traverses woodlands and some farmlands. Traditional methods of access and construction are feasible along the majority of the route. Alternative methods of access and construction will be considered as needed.
Right-of-way width by segment	The new transmission line is approximately 71.6 miles in length with a right-of-way width planned to be 175 feet.
Electrical transmission infrastructure crossings	Over Bremo Bluff to Cunningham DP 115 kV, Over Louisa to South Anna 230 kV, Over Mount Eagle to Bremo Bluff 230 kV, Over Paytes DP to Unknown 115 kV, Over Paytes DP to Unknown 115 kV, Over Tap to Locust Grove 115 kV, Under Cunningham to Elmont 500 kV, Under Front Royal to Morrisville 500 kV, Under Morrisville to North Anna 500 kV
Civil infrastructure/major waterway facility crossing plan	The proposer will secure crossing and encroachment permits, authorizations and agreements for existing linear infrastructure crossed by the project. The proposer will coordinate with easement holders including; municipal and county roads; oil and gas pipelines; transmission lines, and local distribution utilities (power, sewer, water, gas, fiber, etc.) to not interfere with existing easement rights crossed by the project. The proposer will obtain occupation agreements from municipal and county jurisdictions to place transmission facilities over municipal and county roads. The proposer plans to secure crossing agreements with existing oil and gas pipelines and transmission lines.

Environmental impacts	The Project will require a Certificate of Public Convenience and Necessity (“CPCN”) from the Virginia State Corporation Commission (“SCC”) (VA Code §§ 56-265.2, 56-46.1(B)). The proposed Project was routed to avoid and minimize impacts to areas of environmental concern, including wetlands and waters, based on GIS data. Environmental impacts will be minimized by collocating the proposed transmission line along corridors of existing linear development to the maximum extent practicable. practicable. Proposer will engage a qualified consultant to conduct a delineation of wetlands and waters in order to establish jurisdictional boundaries of aquatic resources in the Project area, the results of which will be used to refine Project routing, if necessary, and determine permitting requirements. Any unavoidable, regulated impacts to regulated aquatic resources will be mitigated in accordance with applicable state and federal regulations. Further, aquatic resources that may be temporarily impacted during construction will be restored to pre-construction conditions in accordance with applicable state and federal permit conditions. It is possible that compensatory mitigation will be required to offset unavoidable permanent impacts to aquatic resources. The USACE will review the Project for compliance with Section 106 of the National Historic Preservation Act (16 USC §40 et seq.) and Section 7 of the Federal Endangered Species Act [16 USC §1536(a)(2)], in coordination with the Virginia State Historic Preservation Office and U.S. Fish and Wildlife Service, respectively. In addition to the permits described above, Proposer has identified other permits which may be required for the construction of the Project. Proposer considers these other permits to be minor due to the more limited effort to prepare applications and the less intensive application review processes which follow. These include permits related to Federal Aviation Administration airspace clearance, stormwater/erosion and sedimentation control (i.e., Pollutant Discharge Elimination System Construction General Permit), road crossings, and utility and railroad crossings. Post-award, Proposer will consult with local jurisdictions and state and federal permitting agencies to confirm permitting requirements, discuss the types and scopes of environmental surveys and studies required for permitting, and discuss appropriate avoidance/mitigation measures.
Tower characteristics	The towers will primarily consist of self-supported lattice towers with a single circuit delta configuration.
Construction responsibility	CONFIDENTIAL INFORMATION
Benefits/Comments	CONFIDENTIAL INFORMATION
Component Cost Details - In Current Year $	
Engineering & design	CONFIDENTIAL INFORMATION
Permitting / routing / siting	CONFIDENTIAL INFORMATION
ROW / land acquisition	CONFIDENTIAL INFORMATION
Materials & equipment	CONFIDENTIAL INFORMATION

Construction & commissioning	CONFIDENTIAL INFORMATION
Construction management	CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	CONFIDENTIAL INFORMATION
Contingency	CONFIDENTIAL INFORMATION
Total component cost	$368,562,183.00
Component cost (in-service year)	$439,866,721.00

Transmission Line Upgrade Component

Component title	765kV Axton to Jackson Ferry Transmission Line Loop-In
Project description	CONFIDENTIAL INFORMATION
Impacted transmission line	Axton to Jackson Ferry 765 kV Transmission Line
Point A	Axton
Point B	Jacksons Ferry
Point C	
Terrain description	The loop in will occur primarily in farmland.
Existing Line Physical Characteristics	
Operating voltage	765
Conductor size and type	Quad 1351.5kcmil "Martin" ACSR GA3
Hardware plan description	N/A
Tower line characteristics	The new structures will match the existing tower line characteristics.
Proposed Line Characteristics	

	Designed	Operating
Voltage (kV)	765.000000	765.000000

	Normal ratings	Emergency ratings
Summer (MVA)	4047.000000	4571.000000
Winter (MVA)	4484.000000	4961.000000
Conductor size and type	Conductor utilized will match the existing	
Shield wire size and type	Shield wire utilized will match the existing	
Rebuild line length	0.5 miles	
Rebuild portion description	The loop-in will require the construction of approximately 0.5 miles of new 765 kV transmission line. The right-of-way width is assumed to be 200 feet.	
Right of way	Approximately 0.5 miles of new right-of-way will be required for the loop-in. The right-of-way width is assumed to be 200 feet.	
Construction responsibility	CONFIDENTIAL INFORMATION	
Benefits/Comments	CONFIDENTIAL INFORMATION	
Component Cost Details - In Current Year $		
Engineering & design	CONFIDENTIAL INFORMATION	
Permitting / routing / siting	CONFIDENTIAL INFORMATION	
ROW / land acquisition	CONFIDENTIAL INFORMATION	
Materials & equipment	CONFIDENTIAL INFORMATION	
Construction & commissioning	CONFIDENTIAL INFORMATION	
Construction management	CONFIDENTIAL INFORMATION	
Overheads & miscellaneous costs	CONFIDENTIAL INFORMATION	
Contingency	CONFIDENTIAL INFORMATION	
Total component cost	$2,085,962.00	
Component cost (in-service year)	$2,454,695.00	

Transmission Line Upgrade Component

Component title	765kV Joshua Falls to Cloverdale 765kV Transmission Line Loop-In
Project description	CONFIDENTIAL INFORMATION
Impacted transmission line	Joshua Falls to Cloverdale 765 kV Transmission Line
Point A	Joshua Falls
Point B	Cloverdale
Point C	
Terrain description	The terrain for the route is largely characterized by rolling hills and numerous ridges lying between the mountain and coastal plain regions near the boundary with the Blue Ridge Mountains. The route traverses woodlands and some farmlands. Traditional methods of access and construction are feasible along the majority of the route. Alternative methods of access and construction will be considered as needed.
Existing Line Physical Characteristics	
Operating voltage	765
Conductor size and type	Quad 1351.5kcmil "Martin" ACSR GA3
Hardware plan description	N/A
Tower line characteristics	The new towers will match the existing tower line characteristics.
Proposed Line Characteristics	

	Designed	Operating
Voltage (kV)	765.000000	765.000000
	Normal ratings	Emergency ratings
Summer (MVA)	4047.000000	4571.000000
Winter (MVA)	4484.000000	4961.000000

Conductor size and type	Conductor utilized will match the existing
Shield wire size and type	Shield wire utilized will match the existing
Rebuild line length	0.5 miles
Rebuild portion description	The loop-in will require the construction of approximately 1 mile of new 765 kV transmission line to loop the existing line into the new Stage Substation. The right-of-way width is assumed to be 200 feet.
Right of way	Approximately 1 mile of new right-of-way will be required for the loop-in. The right-of-way width is assumed to be 200 feet.
Construction responsibility	CONFIDENTIAL INFORMATION
Benefits/Comments	CONFIDENTIAL INFORMATION
Component Cost Details - In Current Year $	
Engineering & design	CONFIDENTIAL INFORMATION
Permitting / routing / siting	CONFIDENTIAL INFORMATION
ROW / land acquisition	CONFIDENTIAL INFORMATION
Materials & equipment	CONFIDENTIAL INFORMATION
Construction & commissioning	CONFIDENTIAL INFORMATION
Construction management	CONFIDENTIAL INFORMATION
Overheads & miscellaneous costs	CONFIDENTIAL INFORMATION
Contingency	CONFIDENTIAL INFORMATION
Total component cost	$2,085,962.00
Component cost (in-service year)	$2,454,695.00

Congestion Drivers

None

Existing Flowgates

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2025W1-ME1	290234	05MUSEVILLE	242802	05SMITHMTN	1	138	205	Market Efficiency	Included

New Flowgates

CONFIDENTIAL INFORMATION

Financial Information

Capital spend start date	12/2025
Construction start date	01/2028
Project Duration (In Months)	54

Cost Containment Commitment

Cost cap (in current year)	CONFIDENTIAL INFORMATION
Cost cap (in-service year)	CONFIDENTIAL INFORMATION

Components covered by cost containment

1. Rocky Ford 765kV Substation - Proposer
2. Stage 765/500kV Substation - Proposer
3. Rocky Ford to Stage 765kV Transmission Line - Proposer
4. Stage to Cunningham 500kV Transmission Line - Proposer
5. Cunningham to Morrisville 500kV Transmission Line - Proposer

Cost elements covered by cost containment

Engineering & design	Yes

Permitting / routing / siting	Yes
ROW / land acquisition	Yes
Materials & equipment	Yes
Construction & commissioning	Yes
Construction management	Yes
Overheads & miscellaneous costs	Yes
Taxes	Yes
AFUDC	No
Escalation	No
Additional Information	CONFIDENTIAL 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?	CONFIDENTIAL INFORMATION
Additional cost containment measures not covered above	CONFIDENTIAL INFORMATION

Additional Comments

None