Line #2141 Lakeview to Carolina 230 kV Rebuild

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	414
Project title	Line #2141 Lakeview to Carolina 230 kV Rebuild
Project description	This proposal increases the ampacity of Line 2141 between Lakeview and Carolina to a summer rating of 1047 MVA by reconductoring the line. This project partially overlaps with Supplemental project DOM-2021-0025 presented during the 06/08/2021 TEAC meeting.
Email	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Project in-service date	06/2026
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 #2141 (Lakeview to Carolina)
2. Lakeview Substation
3. Carolina Substation

Transmission Line Upgrade Component

Component title	Line #2141 (Lakeview to Carolina)
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Impacted transmission line	Line #2141 - Lakeview to Carolina
Point A	Lakeview
Point B	Carolina
Point C	
Terrain description	Starting at Lakeview Substation located in Halifax County and just southeast of Roanoke Rapids Lake, the terrain of the existing right-of-way (ROW) varies in slope and is maintained open space. The adjacent properties to the north are forested and to the south are predominately residential. The span between 2141/61 and 2141/62 aerially crosses an unnamed pond/lake. The terrain remains gently rolling and open as it heads east toward Carolina Substation.

Existing Line Physical Characteristics

Operating voltage	230
Conductor size and type	795 ACSR (45/7) 90 Deg C MOT, and 1033.5 ACSR (45/7) 90 Deg C MOT
Hardware plan description	All line hardware will be replaced.
Tower line characteristics	The existing structures were installed in 1967. Repairs to the structures are not needed; however, some structures will be modified as described in the "Rebuild portion description" below.

Proposed Line Characteristics

	Designed	**Operating**
Voltage (kV)	230.000000	230.000000
	Normal ratings	**Emergency ratings**
Summer (MVA)	1047.000000	1047.000000
Winter (MVA)	1160.000000	1160.000000
Conductor size and type	2-636 ACSR (24/7) 150 Deg C	

Shield wire size and type	N/A
Rebuild line length	1.37
Rebuild portion description	FACILITIES TO BE REMOVED: 1. Remove (1) span (approximately 0.1 miles) of 3 phase 1033 ACSR 45/7 – “Ortolan” conductor from Lakeview Substation (Structure 2141/1) to Structure 2141/2. 2. Remove approximately 1.3 miles of 3 phase 795 ACSR 45/7 – “Tern” conductor from Structure 2141/2 to Carolina Substation (Structure 2141/13). 3. Remove insulator hardware from Structure 2141/1 to Structure 2141/13 associated with the phase conductor being removed. This will consist of removing approximately: a. (12) suspension insulator assemblies a. (14) idler suspension assemblies b. (2) suspension training insulator assemblies c. (48) dead-end insulator assemblies FACILITIES TO BE INSTALLED: 1. Modify (5) existing T0415003 dead end towers to accommodate proposed conductor; modifications included in this estimate are for the installation of dead-end conductor assemblies and replacement of failing angle members. a. Tower modifications will need to be completed on Structure 2141/2 (4V Tower + 15’ Leg Extension), 2141/5 (4V Tower + 10’ Leg Extension), 2141/7 (4V Tower + 15’ Leg Extension), and 2141/9 (4V Tower + 15’ Leg Extension). b. Install thirty (30) DE Insulator Assemblies. c. Install fourteen (14) idler suspension assemblies. 2. Modify (4) existing T0412019 suspension towers to accommodate proposed conductor; modifications included in this estimate are for the installation of suspension conductor assemblies. a. Install twelve (12) suspension insulator assemblies. 3. Modify (2) existing backbone structures to accommodate proposed conductor; modifications included in this estimate are for the installation of suspension conductor assemblies. a. Three (3) dead-end insulator crossing assemblies on structure 2141/1. b. Six (6) dead-end insulator crossing assemblies on structure 2141/12. 4. Modify (1) existing monopole structure to accommodate proposed conductor; modifications included in this estimate are for the installation of dead-end conductor assemblies. a. Install three (3) dead-end insulator assemblies. b. Install three (3) dead-end insulator crossing assemblies. c. Install three (3) suspension training insulator assemblies. 5. Modify (1) existing switch tower to accommodate proposed conductor; modifications included in this estimate are for the installation of dead conductor assemblies. a. Install three (3) dead-end insulator assemblies. 6. Install approximately 1.4 miles of bundled 3-phase 636 ACSR 24/7 “Rook” from existing Carolina Substation (Structure 2141/13).
Right of way	No new ROW is needed.
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	$802,912.00
Component cost (in-service year)	$859,919.00

Substation Upgrade Component

Component title	Lakeview Substation
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Substation name	Lakeview
Substation zone	362
Substation upgrade scope	Purchase and install: 1. Install riser conductors. 2. Two (2) 230 kV, 3000A Center Break Switches. 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	Two (2) 230 kV, 3000A Center Break Switches
Substation assumptions	No relay material will be needed for this portion of the project.
Real-estate description	Lakeview substation will not need to 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	$253,931.00
Component cost (in-service year)	$271,959.00

Substation Upgrade Component

Component title	Carolina Substation
Project description	The redacted information is proprietary to the Company; therefore, it is privileged and confidential.
Substation name	Carolina Substation
Substation zone	362
Substation upgrade scope	Purchase and install: 1. Install riser conductors. 2. Connectors on both ends of the risers along with spacers. 3. Miscellaneous conductors, connectors, insulators, and grounding materials as per engineering standards.

Transformer Information

None

New equipment description	No new substation equipment will be installed for this project.
Substation assumptions	No relay material will be needed for this portion of the project.

Real-estate description	Carolina substation will not need to 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	$127,840.00
Component cost (in-service year)	$136,917.00

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-S19	314583	6LAKEVEW	314561	6CAROLNA	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	06/2025
Construction start date	01/2026
Project Duration (In Months)	12

Additional Comments

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