II. DESCRIPTION OF THE PROPOSED PROJECT

B. Line Design and Operational Features

5. For lines being rebuilt, provide mapping showing existing and proposed structure heights for each individual structure within the ROW, as proposed in the application.

Response:

Pamunkey River Rebuild

See <u>Attachment II.B.5.a</u> for mapping. See the table below for existing and proposed structure heights.

Structure #	Existing Height ¹¹	Proposed Height ¹²	Existing Foundation Height (Top of Concrete Elevation Above Ground Elevation)	Proposed Foundation Height (Top of Concrete Elevation Above Ground Elevation)	Existing Design & Material Type	Proposed Design & Material Type
224/226	Approximately 67 feet	Approximately 61 feet	N/A	N/A	SUS Wood Pole H-Frame Structure	DDE Steel 3- Pole Guyed Structure
224/227	Approximately 72 feet	Approximately 105 feet	N/A	2	DDE Steel Pole 3- Pole Structure	DDE Galvanized Lattice Structure
224/228	Approximately 180 feet	Approximately 180 feet	10	16	SUS COR-TEN [®] Lattice Structure	SUS Galvanized Lattice Structure
224/229	Approximately 180 feet	Approximately 180 feet	9	16	SUS COR-TEN [®] Lattice Structure	SUS Galvanized Lattice Structure
224/230	Approximately 150 feet	Approximately 150 feet	7	16	SUS COR-TEN [®] Lattice Structure	SUS Galvanized Lattice Structure
224/231	Approximately 150 feet	Approximately 150 feet	7	16	SUS COR-TEN [®] Lattice Structure	SUS Galvanized Lattice Structure
224/232	Approximately 150 feet	Approximately 150 feet	7	16	SUS COR-TEN [®] Lattice Structure	SUS Galvanized Lattice Structure
224/233	Approximately 135 feet	Approximately 135 feet	2	2	DDE COR-TEN [®] Lattice Structure	DDE Galvanized Lattice Structure
224/234	Approximately 71 feet	Approximately 66 feet	N/A	N/A	SUS Wood Pole H-Frame Structure	DDE Steel 3- Pole Guyed Structure

¹² Proposed height excludes foundation reveal.

¹¹ Existing height excludes foundation reveal.

Mattaponi River Rebuild

See Attachment II.B.5.b for mapping. See the table below for existing and proposed structure heights.

Structure #	Existing Height ¹³	Proposed Height ¹⁴	Existing Foundation Height (Top of Concrete Elevation Above Ground Elevation)	Proposed Foundation Height (Top of Concrete Elevation Above Ground Elevation)	Existing Design & Material Type	Proposed Design & Material Type
224/180	Approxi- mately 65 feet	Approxi- mately 61 feet	N/A	N/A	SUS Wood Pole H- Frame Structure	DDE Steel 3- Pole Guyed Structure
224/181	Approxi- mately 68 feet	Approxi- mately 105 feet	N/A	2 feet	DDE Steel Pole 3- Pole Structure	DDE Galvanized Lattice Structure
224/182	Approxi- mately 180 feet	Approxi- mately 180 feet	9 feet	16 feet	SUS COR-TEN [®] Lattice Structure	SUS Galvanized Lattice Structure
224/183	Approxi- mately 180 feet	Approxi- mately 180 feet	8 feet	16 feet	SUS COR-TEN [®] Lattice Structure	SUS Galvanized Lattice Structure
224/184	Approxi- mately 150 feet	Approxi- mately 150 feet	9 feet	16 feet	SUS COR-TEN [®] Lattice Structure	SUS Galvanized Lattice Structure
224/185	Approxi- mately 61 feet	Approxi- mately 105 feet	N/A	2 feet	DDE Steel Pole 3- Pole Structure	DDE Galvanized Lattice Structure
224/186	Approxi- mately 62 feet	Approxi- mately 61 feet	N/A	N/A	SUS Wood Pole H- Frame Structure	DDE Steel 3- Pole Guyed Structure

I-64 Rebuild

See Attachment II.B.5.c for mapping. See the table below for existing and proposed structure heights.

 ¹³ Existing height excludes foundation reveal.
 ¹⁴ Proposed height excludes foundation reveal.

Structure #	Existing Height ¹⁵	Proposed Height ¹⁶	Existing Average Foundatio n Height (Top of Concrete Elevation Above Ground Elevation)	Proposed Average Foundation Height (Top of Concrete Elevation Above Ground Elevation)	Existing Design & Material Type	Proposed Design & Material Type
224/268	Approxi- mately 61 feet	Approximately 66 feet	N/A	N/A	SUS Wood Pole H-Frame Structure	DDE COR-TEN [®] H- Frame Structure
224/269	Approxi- mately 116 feet	Approximately 135 feet	1.1 feet	2.6 feet	SUS COR- TEN [®] Lattice Structure	SUS Galvanized Lattice Structure
224/270	Approxi- mately 131 feet	Approximately 145 feet	2.5 feet	2.4 feet	SUS COR- TEN [®] Lattice Structure	SUS Galvanized Lattice Structure
224/271	Approxi- mately 66 feet	Approximately 66 feet	N/A	N/A	DDE Wood Pole H-Frame Structure	DDE COR-TEN [®] H-Frame Structure

Diascund Rebuild

See <u>Attachment II.B.5.d</u> for mapping. See the table below for existing and proposed structure heights.

Structure #	Existing Height ¹⁷	Proposed Height ¹⁸	Existing Average Foundation Height (Top of Concrete Elevation Above Ground Elevation)	Proposed Average Foundation Height (Top of Concrete Elevation Above Ground Elevation)	Existing Design & Material Type	Proposed Design & Material Type
224/297, 2016/6	Approximately 139.5	Approximately 135 feet	2.9 feet	5 feet	COR-TEN [®] Lattice Structure	DDE COR-TEN [®] 2-Pole Structure
224/297, 2016/6	N/A	Approximately 135 feet	N/A	5 feet	N/A	DDE COR-TEN [®] 2-Pole Structure

¹⁵ Existing height excludes foundation reveal.
¹⁶ Proposed height excludes foundation reveal.
¹⁷ Existing height excludes foundation reveal.
¹⁸ Proposed height excludes foundation reveal.







Attachment II.B.5.c



Attachment II.B.5.d



II. DESCRIPTION OF THE PROPOSED PROJECT

B. Line Design and Operational Features

6. [1] Provide photographs for typical existing facilities to be removed, [2] comparable photographs or representations for proposed structures, and [3] visual simulations showing the appearance of all planned transmission structures at identified historic locations within one mile of the proposed centerline and in key locations identified by the Applicant.

Response:

Pamunkey River Rebuild

[1] See <u>Attachments II.B.6.a.1-4</u>.

[2] See <u>Attachments II.B.6.b.1-3</u>.

[3] Photographs were taken from historic resources within one mile of the Pamunkey River Rebuild, including all NRHP-listed and eligible resources. The locations where these photographs were taken are described below and shown on Attachment II.B.6.c.1, along with a GIS viewshed analysis estimating visibility of the existing and proposed structures. At those photo locations where the existing structures were visible or the proposed structures were estimated to be visible, Stantec completed simulations of the proposed structures. These simulations were based on vegetative conditions at the time the photo was taken and transmission line modeling provided by the Company. In those locations where the proposed structures were not estimated to be visible, the photo is provided to document the existing condition. The existing and proposed conditions are included in the attachments as noted in the table below. Simulations were also prepared for other key locations and have been made available to the public, as further discussed in Section III.B.

Photo Number	Subject/ Orientation	Attachment Number
1	In front of Ruffins Ferry (DHR ID #050-0070) looking south. Existing and proposed structures are visible.	Attachment II.B.6.c.2
2	Beside Ruffins Ferry (DHR ID #050-0070) looking east. Existing and proposed structures are visible.	Attachment II.B.6.c.3
3	In front of Sweet Hall (DHR ID#050-0067) looking south. Existing and proposed structures are	Attachment II.B.6.c.4

	visible.	
4	Behind Sweet Hall (DHR ID#050- 0067) looking northwest. Existing and proposed structures are visible.	Attachment II.B.6.c.5

Mattaponi River Rebuild

[1] See <u>Attachments II.B.6.a.1-3</u>.

[2] See Attachments II.B.6.b.1-3.

[3] Photographs were taken from historic resources within one mile of the Mattaponi River Rebuild, including all NRHP-listed and eligible resources. The locations where these photographs were taken are described below and shown on Attachment II.B.6.c.6, along with a GIS viewshed analysis estimating visibility of the existing and proposed structures. At those photo locations where the existing structures were visible or the proposed structures were estimated to be visible, Stantec completed simulations of the proposed structures. These simulations were based on vegetative conditions at the time the photo was taken and transmission line modeling provided by the Company. In those locations where the proposed structures were not estimated to be visible, the photo is provided to document the existing condition. The existing and proposed conditions are included in the attachments as noted in the table below. Simulations were also prepared for other key locations and have been made available to the public, as further discussed in Section III.B.

Photo Number	Subject/ Orientation	Attachment Number
5	From King and Queen County	Attachment
	Courthouse (DHR ID# 049-036)	<u>II.B.6.c.7</u>
	looking south. Neither existing nor	
	proposed structures are visible.	
	Photograph provided to document	
ж. -	existing condition only.	
6	In front of Immanuel Chapel (DHR	Attachment
	ID# 049-0035) looking south.	<u>II.B.6.c.8</u>
	Neither existing nor proposed	
	structures are visible. Photograph	
	provided to document existing	
	condition only.	

7	From Mantapike Hill/ Walkerton	Attachment
	Battlefield (DHR ID# 049-5007)	<u>II.B.6.c.9</u>
	and King and Queen Courthouse	
	Green Historic District (DHR ID#	4
	049-5001 looking south. Neither	
· · · ·	existing nor proposed structures	
	were found to be visible although	
	predicted to be visible by the GIS	
	viewshed modeling. Photograph	
	provided to document existing	
	condition only.	

I-64 Rebuild

[1] See <u>Attachment II.B.6.a.1</u>, <u>Attachment II.B.6.a.3</u>, and <u>Attachment II.B.6.a.5</u>.

[2] See Attachment II.B.6.b.3 and Attachment II.B.6.b.4.

[3] There were no historic resources or key public locations within one mile of the I-64 Rebuild.

Diascund Rebuild

[1] See <u>Attachment II.B.6.a.4</u>.

[2] See <u>Attachment II.B.6.b.5</u>.

[3] There were no historic resources located within one mile. A simulation was prepared from a key location at the Diascund Rebuild and has been made available to the public, as further discussed in Section III.B.







Existing Structure Type: SUS Wood H-Frame



Photograph provided by Stantec



Existing Structure Type: DDE Steel 3-Pole Attachment II.B.6.a.2





Existing Structure Type: SUS COR-TEN® Lattice Tower





Existing Structure Type: DDE COR-TEN® Lattice Tower





Existing Structure Type: DDE Wood H-Frame



Photograph provided by Dominion Energy



Proposed Structure Type: DDE Steel 3-Pole Guyed





Proposed Structure Type: DDE Galvanized Lattice Tower





Proposed Structure Type: SUS Galvanized Lattice Tower



Photograph provided by Dominion Energy



Proposed Structure Type: DDE COR-TEN® H-Frame



* The proposed project does not involve replacing or modifying Structure 85/6.

Representation Provided by Dominion Energy



Proposed Structure Type: DDE Monopole

Attachment II.B.6.c.1



V: 2034/A clive/ 203400940/03 data/as /00940 u panunkev il66c1 photosimmxd Revised: 2016-05-16 By: psindetan



Attachment II.B.6.c.2 Page 1 of 2



212

Attachment II.B.6.c.2 Page 2 of 2





Attachment II.B.6.c.3 Page 2 of 2





216

Attachment II.B.6.c.4 Page 2 of 2

Attachment II.B.6.c.5 Page 2 of 2

Page 01 of 01 203400940 Prepared by TPS on 2018-05-14 Technical Review by MGS on 2018-05-15 Independent Review by JBJ on 2018-05-15 Coordinate System: NAD 1 933 StatePlane Virginia South FIPS 4502 Feet Historic resource data provided by Virginia Department of Historic resources. Virginia Cuthural Resources Information System (VCRIS) and are for planning purposes only Structure locations and Right-of-Way dimensions provided by Dominion Energy Virginia Information contained herein is pretiminary in nature and subject to final engineering Antholimagers & Bing Maps Microsoft product screen shol(s) reprinted with permission from Microsoft Corporation 2,000 King and ames City 1:12,000 (At original document size of 11x17) Existing Visible, Proposed not Visible Existing not Visible, Proposed Visible Attachment **II.B.6.c.6** Title **Photo Simulation Locations** Both Existing and Proposed Visible Photo Location and Orientation the way Clent/Project Dominion Energy Virginia Line #224 Partial Rebuild Projects Mattaponi River Rebuild for Historic Resources Proposed 3-Pole Structure Stantec King Willan Proposed Lattice Tower 1,000 New Keni Historic Resource Charles City Project Location King and Queen and King William Counties. Virginia Hanover Henrico Legend 0 tes N e. 4. 6.5 z 049-500 N 224/180 224/181 224/1 224/183 224/184 king and Queen King William 224/185 ∑ 224/186

Attachment II.B.6.c.6

and agents, from any and all claims

completeness of the data. The recipient releases Stantec, its officers

sibility for verifying the a

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Attachment II.B.6.c.7

From King and Queen County Courthouse (DHR ID #049-036) looking south Attachment II.B.6.c.7

Stantec Energy

II. DESCRIPTION OF THE PROPOSED PROJECT

- C. Describe and furnish plan drawings of all new substations, switching stations, and other ground facilities associated with the proposed project. Include size, acreage, and bus configurations. Describe substation expansion capability and plans. Provide one-line diagrams for each.
- Response: Not applicable for the Line #224 Partial Rebuild Projects because there is no permanent substation work associated with the Rebuild Projects. However, with respect to the Mattaponi River Rebuild please refer to Section I.N of the Appendix for a discussion of the temporary mobile substation.

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

A. Describe the character of the area that will be traversed by this line, including land use, wetlands, etc. Provide the number of dwellings within 500 feet, 250 feet and 100 feet of the centerline, and within the ROW for each route considered. Provide the estimated amount of farmland and forestland within the ROW that the proposed project would impact.

Response: **Pamunkey River Rebuild**

The Pamunkey River Rebuild traverses approximately 1.7 miles through New Kent and King William Counties in an area that is largely characterized by rural to low density residential development with scattered agricultural land use. According to New Kent and King William County GIS data and aerial interpretation, there are approximately 19 dwellings located within 500 feet of the centerline, approximately 5 dwellings located within 250 feet of the centerline, and no dwellings appear to be located within 100 feet of the centerline or within the rightof-way itself. These numbers have not been field verified and are based upon desktop resources.

A total of 3.9 acres of prime farmland are located within the Pamunkey River Rebuild right-of-way, according to Natural Resources Conservation Service Data ("NRCS"), as shown on Attachment III.A.1. Within the existing right-of-way, several areas of prime farmland and farmland of statewide importance are currently in agricultural use. As agricultural activities have been occurring within the rightof-way while the existing transmission line has been in operation, the Pamunkey River Rebuild would not be expected to have permanent impacts to farmland. The construction of access roads and work pads for structure erection may present a temporary impact to farming operations that are occurring within the existing Company easement. The Company utilizes timber mats to access transmission structures within agricultural fields to minimize the impact to the soil, thereby avoiding permanent impacts to farmlands. Acquisition of additional right-of-way is not required as part of this Project; therefore, construction of structures would not occur on agricultural land outside of the existing Company easements. The Company will work with landowners to minimize the effect of construction on agricultural operations occurring within Company easements.

The transmission line right-of-way is regularly maintained to keep vegetation at the emergent and scrub-shrub level for the safe operation of the existing facilities. Since the proposed Pamunkey River Rebuild is to take place within the existing right-of-way, no impact to forestland is expected.

A detailed investigation of waters of the U.S., including wetlands, was conducted by Stantec for the Pamunkey River Rebuild. Prior to conducting fieldwork, Stantec consulted the U.S. Geological Survey ("USGS") 7.5 minute Topographical Quadrangle Map for New Kent, Virginia (1985 revision), the National Wetlands Inventory Interactive Mapper ("NWI"), administered by the U.S. Fish and Wildlife Service ("USFWS") and the Web Soil Survey, administered by the NRCS. The USGS quad map indicates the Pamunkey River Rebuild project area has gently sloping to moderately sloping terrain and crosses the Pamunkey River. The NWI map depicted estuarine and marine wetlands and estuarine and marine deepwater within the project limits.

Within the Pamunkey River Rebuild right-of-way, wetlands and other waters of the United States were delineated using the *Routine Determination Method* as outlined in the *1987 Corps of Engineers Wetland Delineation Manual* and methods described in the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). In total, 12.8 of palustrine emergent wetlands, 0.1 of palustrine forested wetlands, 0.5 of palustrine scrub-shrub wetlands, 4.2 acres (6,987 linear feet) of tidal channel and 0.01 acre (164 linear feet) of upper perennial stream channel. The Company submitted the results of this delineation to the U.S. Army Corps of Engineers ("Corps") in April 2018 to obtain a preliminary jurisdictional determination. A copy of the wetland delineation map is included in Attachment 2.D.1 of the DEQ Supplement.

In accordance with the *Guidelines for Assessing Impacts of Proposed Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia (2008)*, a Stage I Analysis was conducted by Stantec. This report was forwarded to DHR and is included as Attachment 2.H.1 of the DEQ Supplement. No National Historic Landmark ("NHL")-listed architectural resources are located within the 1.5-mile buffer. Two NRHP-listed resources, Sweet Hall (DHR #050-0067), and Ruffin's Ferry (DHR #050-0070), were identified within the 1.0-mile buffer. No NRHP-eligible resources were identified within the 0.5-mile buffer. Archaeological site 44NK0248, a Woodland lithic scatter, was determined potentially eligible for listing on the NRHP in 2008. Although the site is not mapped within the right-of-way, it is immediately adjacent and may extend into the transmission line right-of-way.

Mattaponi River Rebuild

The Mattaponi River Rebuild traverses approximately 1.3 miles through King and Queen and King William Counties in an area that is predominantly characterized by agricultural land use with scattered residential development. According to King William and King and Queen County GIS data and aerial interpretation, there is one dwelling located within 500 feet of the centerline and no dwellings are located within 250 feet of the centerline or within the right-of-way.

A total of 3.3 acres of prime farmland are located within the Mattaponi River Rebuild right-of-way, according to NRCS data, as shown on <u>Attachment III.A.2</u>. However, no agricultural land uses appear to be present. The proposed Mattaponi River Rebuild is therefore not expected to have an impact on farmland. The transmission line right-of-way is regularly maintained to keep vegetation at the emergent and scrub-shrub level for the safe operation of the existing facilities.

225
Since the proposed Mattaponi River Rebuild is to take place within the existing right-of-way, no impact to forestland is expected.

A detailed investigation of waters of the U.S., including wetlands, was conducted by Stantec for the Mattaponi River Rebuild. Prior to conducting fieldwork, Stantec consulted the USGS 7.5 minute Topographical Quadrangle Map for King and Queen Courthouse, Virginia (1985 revision), the NWI, administered by the USFWS and the Web Soil Survey, administered by the NRCS. The USGS quad map indicates the Mattaponi River Rebuild crosses Mitchell Hill Creek, Mattaponi River and Gleason Marsh. The NWI map depicted freshwater emergent wetlands, freshwater forested/shrub wetlands and riverine within the project limits.

Within the Mattaponi River Rebuild right-of-way, wetlands and other waters of the United States were delineated using the *Routine Determination Method* as outlined in the *1987 Corps of Engineers Wetland Delineation Manual* and methods described in the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). In total, 11.1 acres of wetlands, 4.5 acres (2,363 linear feet) of tidal channel and 0.03 acre (409 linear feet) of upper perennial stream channel occur within the right-of-way for the Mattaponi River Rebuild. The Company submitted the results of this delineation to the Corps in April 2018 to obtain a preliminary jurisdictional determination. A copy of the wetland delineation map is included in Attachment 2.D.2 of the DEQ Supplement.

In accordance with the *Guidelines for Assessing Impacts of Proposed Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia (2008)*, a Stage I Analysis was conducted by Stantec. This report was forwarded to the DHR and is included as Attachment 2.H.2 to the DEQ Supplement. No NHL-listed architectural resources are located within the 1.5 mile buffer. NRHP-listed King and Queen County Court House Green Historic District (DHR ID 049-5001) was identified within the 1.0-mile buffer. NRHP-Eligible King and Queen Court House (DHR ID 049-0036) and Mantapike Hill/Walkerton Battlefield (DHR ID 049-5007) were identified within the 0.5-mile buffer.

I-64 Rebuild

The I-64 Rebuild traverses approximately 0.5 mile in New Kent County, Virginia in an area that is largely characterized by agricultural land use with scattered residential development. According to New Kent County GIS data and aerial interpretation, there are ten dwellings located within 500 feet of the centerline, four dwellings within 250 feet, and no dwellings within 100 feet of the centerline or within the right-of-way.

A total of 0.9 acre of prime farmland are located within the I-64 Rebuild right-ofway, according to NRCS data, as shown on <u>Attachment III.A.3</u>. However, no agricultural land uses appear to be present. The proposed I-64 Rebuild is therefore not expected to have an impact on farmland. The transmission line right-of-way is regularly maintained to keep vegetation at the emergent and scrub-shrub level for the safe operation of the existing facilities. Since the proposed I-64 Rebuild is to take place within the existing right-of-way, no impact to forestland is expected.

A detailed investigation of waters of the U.S., including wetlands, was conducted by Stantec for the I-64 Rebuild. Prior to conducting fieldwork, Stantec consulted the USGS 7.5 minute Topographical Quadrangle Map for King and Queen Courthouse, Virginia (1985 revision), the NWI, administered by the USFWS and the Web Soil Survey, administered by the NRCS. The NWI map depicted no wetlands or waterways being present within the project limits.

Within the I-64 Rebuild right-of-way, wetlands and other waters of the United States were delineated using the *Routine Determination Method* as outlined in the 1987 Corps of Engineers Wetland Delineation Manual and methods described in the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). In total, 0.4 acre of palustrine emergent wetlands occur within the right-of-way for the I-64 Rebuild. The Company submitted the results of this delineation to the Corps in April 2018 to obtain a preliminary jurisdictional determination. A copy of the wetland delineation map is included in Attachment 2.D.3 of the DEQ Supplement.

No architectural or archaeological resources meeting the *Guidelines for Assessing Impacts of Proposed Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia (2008)*, were identified for the I-64 Rebuild.

Diascund Rebuild

The Diascund Rebuild consists of rebuilding a single transmission support structure on the western bank of the Diascund Creek Reservoir in New Kent County, Virginia. According to New Kent County GIS data and aerial interpretation, there are no dwellings within 500 feet of the centerline or within the right-of-way.

A total of 0.2 acre of prime farmland are located within the Diascund Rebuild rightof-way, according to NRCS data, as shown on <u>Attachment III.A.4</u>. However, no agricultural land uses appear to be present. The proposed Diascund Rebuild is therefore not expected to have an impact on farmland. The transmission line rightof-way is regularly maintained to keep vegetation at the emergent and scrub-shrub level for the safe operation of the existing facilities. Since the proposed Diascund Rebuild is to take place within the existing right-of-way, no impact to forestland is expected.

A detailed investigation of waters of the U.S., including wetlands, was conducted by Stantec for the Diascund Rebuild. Prior to conducting fieldwork, Stantec consulted the USGS 7.5 minute Topographical Quadrangle Map for King and Queen Courthouse, Virginia (1985 revision), the NWI, administered by the USFWS and the Web Soil Survey, administered by the NRCS. The NWI map depicted no wetlands or waterways being present within the project limits.

Within the Diascund Rebuild right-of-way, wetlands and other waters of the United States were delineated using the *Routine Determination Method* as outlined in the *1987 Corps of Engineers Wetland Delineation Manual* and methods described in the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). In total, 0.1 acre of palustrine forested wetlands, 2.0 acres of palustrine scrub shrub wetlands and 0.8 acres of palustrine emergent wetlands occur within the right-of-way for the Diascund Rebuild. The Company submitted the results of this delineation to the Corps in April 2018 to obtain a preliminary jurisdictional determination. A copy of the wetland delineation map is included in Attachment 2.D.4 of the DEQ Supplement.

No architectural or archaeological resources meeting the Guidelines for Assessing Impacts of Proposed Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia (2008), were identified for the Diascund Rebuild.









III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

- B. Describe any public meetings the Applicant has had with neighborhood associations and/or officials of local, state or federal governments that would have an interest or responsibility with respect to the affected area or areas.
- Response: Project details have been provided to the public through an internet website dedicated to the Line #224 Partial Rebuild Projects:

https://www.dominionenergy.com/line224

The website includes route maps, an explanation of need, a description of the Line #224 Partial Rebuild Projects and their benefits, photo simulations, a project overview video, and information on the Commission review process. The website was launched in April 2018.

In April 2018, the Company sent more than 140 letters to property owners within 1,500 feet of the proposed Line #224 Partial Rebuild Projects. The letters provided a brief overview of the respective projects and advised of anticipated open houses the Company would be holding in May of 2018. A copy of this letter and enclosed project overview map are included as <u>Attachment III.B.1</u>.

Save-the-date postcards were also sent to the same property owners inviting them to attend a community open house and learn more about the Rebuild Projects. The postcard is included as <u>Attachment III.B.2</u>. In addition to the letters, advertisements for the open house, included as <u>Attachment III.B.3</u>, were placed in the New Kent – Charles City Chronicle and Tidewater Review prior to the event.

A total of three community open houses were held:

- May 9 from 5 pm -7 pm at the Cool Spring Primary School in King William County in which 5 people attended, including Chief Frank Adams of the federally recognized Upper Mattaponi Native American tribe.
- May 10 from 5 pm 7pm at Central High School in King and Queen County in which 1 person attended.
- May 16 from 5 pm 7pm at New Kent High School in New Kent County in which 8 people attended, including New Kent County Administrator Rodney Hathaway.

A variety of graphics were presented to the public at the open houses, including overview maps, sample existing and proposed structure photos, and simulations of the proposed Rebuild Projects from key locations along the Pamunkey River Rebuild, Mattaponi River Rebuild, and Diascund Rebuild. These simulations are included as <u>Attachment III.B.4</u>. A thick stand of trees naturally conceals the majority of the I-64 Rebuild, making photo simulations ineffective. As a result, the Company did not locate any key locations on the I-64 Rebuild. Open house

materials have been posted on the website for the Line #224 Partial Rebuild Projects.

Attachment III.B.1 Page 1 of 2

Dominion Energy Virginia Dominion Energy North Carolina Electric Transmission 701 East Cary Street, Richmond, VA 23219 DominionEnergy.com



April 6, 2018

Proposed Line 224 Partial Rebuild Project

Dear Neighbor,

At Dominion Energy, we are committed to continually reviewing and analyzing our energy infrastructure to provide the most safe and reliable electric service. We are currently exploring options to address portions of an aging 230 kilovolt (kV) electric transmission line located near your property. This work is necessary to maintain reliability for our customers.

We are dedicated to finding the best solution for our long-term needs and the communities we proudly serve. We would like to hear from you before filing an application with the Virginia State Corporation Commission in June 2018.

This project will rebuild portions of Line 224 – a 230 kV line connecting our Lanexa and Dunnsville substations in Virginia's New Kent, King William, and King and Queen counties (please see enclosed overview map). A total of 21 structures at four key crossings need to be replaced due to the deteriorating condition of concrete foundations supporting the structures. The majority of the structures also feature brown, weathering steel, which is nearing the end of its service life. These critical structures carry wires over Diascund Reservoir, Interstate 64, and the Pamunkey and Mattaponi rivers. The structures have been in operation for over five decades and need to be replaced to ensure the integrity of the power grid.

Our plan is to rebuild the line in a manner that:

- Creates no new right of way
- Keeps structures in the same general location as existing structures
- Provides long-term reliability and durability without excessive maintenance
- Delivers operational system flexibility to meet future needs
- · Complies with mandatory standards to ensure safety and reliability

We invite you to attend one of our upcoming informational open houses for an opportunity to speak with our electric transmission experts about the project. Three open houses will be held in May 2018 – one in each of the counties the line runs through. There will be no formal presentations at these events. Instead, the format is open with various informational stations. Please feel free to attend as your time allows. We will contact you soon with more information once venues and dates are confirmed. We hope you can join us.

Additional project updates will be posted online at www.DominionEnergy.com/line224. The site is currently under development and will be available soon. You may also contact us by sending an email to powerline@dominionenergy.com or calling 888-291-0190.

Sincerely,

Dominion Energy Electric Transmission Communications



Attachment III.B.1 Page 2 of 2









SAVE THE DATE Dominon Energy Virginia Community Open House Proposed Line 224 Partial Rebuild Project

At Dominion Energy, we are committed to continually reviewing and analyzing our energy infrastructure to provide the most safe and reliable electric service.

We need to rebuild portions of Line 224 – a 230 kilovolt (kV) line connecting our Lanexa and Dunnsville substations in Virginia's New Kent, King William, and King and Queen counties. A total of 21 structures at four key crossings need to be replaced. These critical structures carry wires over Diascund Reservoir, Interstate 64, and the Pamunkey and Mattaponi rivers. The structures have been in operation for over five decades and need to be replaced to maintain reliability for our customers.

Please join us at one of our upcoming community open houses to learn more about this important project and to speak with our electric transmission experts. Photo simulations of the proposed replacement structures will be available.

- There will not be a formal presentation
- The format features various informational stations
- Please attend at your convenience

Tuesday, May 8, 2018, 5-7 p.m.Thursday, May 10, 2018, 5-7 p.m.Cool Spring Primary SchoolCentral High School7301 Acquinton Church Road17024 The TrailKing William, VA 23086King & Queen Court House, VA 23085

Wednesday, May 16, 2018, 5-7 p.m. New Kent High School 7365 Egypt Road New Kent, VA 23124

For more information, please contact us by sending an email to powerline@dominionenergy.com or calling 888-291-0190.

Line 224 OH Save the Date.indd 2

Dominion Energy

COMMUNITY OPEN HOUSE LINE 224 PARTIAL REBUILD PROJECT

At Dominion Energy, we are committed to continually reviewing and analyzing our energy infrastructure to provide the most safe and reliable electric service to our neighbors.

PROJECT: We need to rebuild portions of Line 224 — a 230 kilovolt (kV) line connecting our Lanexa and Dunnsville substations in Virginia's New Kent, King William, and King and Queen counties. A total of 21 structures at four key crossings need to be replaced. These critical structures carry wires over Diascund Reservoir, Interstate 64, and the Pamunkey and Mattaponi rivers. The structures have been in operation for over five decades and need to be replaced to ensure the integrity of the power grid.

Our plan is to rebuild the line in a manner that:

- Creates no new right of way
- Keeps structures in the same general location as existing structures
- Provides long-term reliability and durability without excessive maintenance
- Delivers operational system flexibility to meet future needs
- Complies with mandatory standards to ensure safety and reliability

OPEN HOUSE: Please join us to learn more about this important project and to speak with our electric transmission experts. Photo simulations of the proposed replacement structures will be available.

- There will not be a formal presentation
- The format features various informational stations
- · Please attend at your convenience



Tuesday, May 8, 2018 5–7 p.m. Cool Spring Primary School 7301 Acquinton Church Road King William, VA 23086

Thursday, May 10, 2018 5–7 p.m. Central High School 17024 The Trail King and Queen Court House, VA 23085

Wednesday, May 16, 2018 5 – 7 p.m. New Kent High School 7365 Egypt Road New Kent, VA 23124

For more information, please contact us by sending an email to **powerline@ domnionenergy.com** or calling 888-291-0190.



Dom_NewKentCharlesCityChronicle_4.75x11.5.indd 1

4/17/18 9:37 AM

Attachment III.B.3 Page 2 of 2

Dominion Energy

COMMUNITY OPEN HOUSE LINE 224 PARTIAL REBUILD PROJECT

At Dominion Energy, we are committed to continually reviewing and analyzing our energy infrastructure to provide the most safe and reliable electric service to our neighbors.

PROJECT: We need to rebuild portions of Line 224 — a 230 kilovolt (kV) line connecting our Lanexa and Dunnsville substations in Virginia's New Kent, King William, and King and Queen counties. A total of 21 structures at four key crossings need to be replaced. These critical structures carry wires over Diascund Reservoir, Interstate 64, and the Pamunkey and Mattaponi rivers. The structures have been in operation for over five decades and need to be replaced to ensure the integrity of the power grid.

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OPEN HOUSES

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New Kent, VA 23124

For more information, please contact us by sending an email to **powerline**@

dominionenergy.com or calling 888-291-0190.







241

Dominion Energy[•]

Stantec





Line #224 Partial Rebuild Projects



Stantec



Pamunkey River Rebuild looking North East









Stantec

Dominion Energy





Mattaponi River Rebuild looking North West





Stantec

Dominion Energy[®]





Mattaponi River Rebuild looking South

looking East







Stantec

246



III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

- C. Detail the nature, location, and ownership of each building that would have to be demolished or relocated if the project is built as proposed.
- Response: The Company is not aware of any residences or buildings within the right-of-way and does not expect to have any residences demolished or relocated in connection with the Line #224 Partial Rebuild Projects.

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

D. Identify existing physical facilities that the line will parallel, if any, such as existing transmission lines, railroad tracks, highways, pipelines, etc. Describe the current use and physical appearance and characteristics of the existing ROW that would be paralleled, as well as the length of time the transmission ROW has been in use.

Response:

Construction of Line #224 was completed around 1967, and the existing right-ofway has been in continuous use since that time. See <u>Attachment I.G.1</u> for a general map of adjacent parallel transmission lines that are present within the existing maintained right-of-way.

IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

E. Indicate whether the Applicant has investigated land use plans in the areas of the proposed route and indicate how the building of the proposed line would affect any proposed land use.

Response: **Pamunkey River Rebuild**

III.

The Comprehensive Plans for New Kent and King William County, dated 2012 and 2016, respectively, were reviewed to evaluate the potential effect the Pamunkey River Rebuild could have on future development. The placement and construction of electric transmission lines are not addressed within the plans. Instead, the Comprehensive Plans address the organized development of the Counties, and the preservation of important features such as the natural environment and the rural character that defines the Counties. The Pamunkey River Rebuild is not expected to impact future development plans because it is a rebuild of an existing transmission line and is not located within an area proposed for re-development.

Mattaponi River Rebuild

The Comprehensive Plans for King and Queen County and King William County, dated 2006 and 2016, respectively, were reviewed to evaluate the potential effect the Mattaponi River Rebuild could have on future development. The placement and construction of electric transmission lines are not addressed within the plans. Instead, the Comprehensive Plans address the organized development of the Counties, and the preservation of important features such as the natural environment and the rural character that defines the Counties. The Mattaponi River Rebuild is not expected to impact future development plans because it is a rebuild of an existing transmission line and is not located within an area proposed for redevelopment.

I-64 Rebuild

The Comprehensive Plan for New Kent County, dated 2012, was reviewed to evaluate the potential effect the I-64 Rebuild could have on future development. The placement and construction of electric transmission lines are not addressed within the plan. Instead, the Comprehensive Plan addresses the desire to maintain the County's attractive, rural character while providing opportunities for the creation of income and wealth in the community. The I-64 Rebuild is not expected to impact future development plans because it is a rebuild of an existing transmission line and is not located within an area proposed for re-development.

Diascund Rebuild

The Comprehensive Plan for New Kent County, dated 2012, was reviewed to evaluate the potential effect the Diascund Rebuild could have on future development. The placement and construction of electric transmission lines are not addressed within the plan. Instead, the Comprehensive Plan addresses the desire to maintain the County's attractive, rural character while providing opportunities for the creation of income and wealth in the community. The Diascund Rebuild is not expected to impact future development plans because it is a rebuild of an existing transmission line and is not located within an area proposed for re-development.

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

F. Government Bodies

- 1. Indicate if the Applicant determined from the governing bodies of each county, city and town in which the proposed facilities will be located whether those bodies have designated the important farmlands within their jurisdictions, as required by § 3.2-205 B of the Code.
- 2. If so, and if any portion of the proposed facilities will be located on any such important farmland:

a. Include maps and other evidence showing the nature and extent of the impact on such farmlands;

b. Describe what alternatives exist to locating the proposed facilities on the affected farmlands, and why those alternatives are not suitable; and

c. Describe the Applicant's proposals to minimize the impact of the facilities on the affected farmland.

Response: Pamunkey River Rebuild

- Neither New Kent County nor King William County has designated locally important farmland, as described in Va. Code § 3.2-205 B. New Kent County has designated the Cooks Mill Agricultural and Forestal District within the Pamunkey River Rebuild project area, as shown on <u>Attachment III.A.1</u>. Designated Agricultural and Forestal lands located in New Kent County are protected from development into other land uses through protective zoning. As the Pamunkey River Rebuild is located entirely within the existing right-of-way, no impact to the Cooks Mill District is expected. King William County has not designated agricultural and forestal districts.
- 2. Not applicable.

Mattaponi River Rebuild

- 1. Neither King and Queen County nor King William County have designated locally important farmland, as described in Va. Code § 3.2-205 B.
- 2. Not applicable.

I-64 Rebuild

1. New Kent County does not have designated locally important farmland, as described in Va. Code § 3.2-205 B. New Kent County has designated the

Timber Swamp Agricultural and Forestal District adjacent to the I-64 Rebuild, as shown on <u>Attachment III.A.3</u>. Designated Agricultural and Forestal lands located in New Kent County are protected from development into other land uses through protective zoning. As the I-64 Rebuild is located entirely within the existing right-of-way, no impact to the Timber Swamp District is expected.

2. Not applicable.

Diascund Rebuild

- 1. New Kent County does not have designated locally important farmland, as described in Va. Code § 3.2-205 B. New Kent County has designated Agricultural and Forestal District however none of them are located within or adjacent to the Diascund Rebuild.
- 2. Not applicable.

IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

G. Identify the following that lie within or adjacent to the proposed ROW:

III.

- 1. Any district, site, building, structure, or other object included in the National Register of Historic Places maintained by the U.S. Secretary of the Interior;
- 2. Any historic architectural, archeological, and cultural resources, such as historic landmarks, battlefields, sites, buildings, structures, districts or objects listed or determined eligible by the Virginia Department of Historic Resources ("DHR");
- 3. Any historic district designated by the governing body of any city or county;
- 4. Any state archaeological site or zone designated by the Director of the DHR, or its predecessor, and any site designated by a local archaeological commission, or similar body;
- 5. Any underwater historic assets designated by the DHR, or predecessor agency or board;
- 6. Any National Natural Landmark designated by the U.S. Secretary of the Interior;
- 7. Any area or feature included in the Virginia Registry of Natural Areas maintained by the Virginia Department of Conservation and Recreation ("DCR");
- 8. Any area accepted by the Director of the DCR for the Virginia Natural Area Preserves System;
- 9. Any conservation easement or open space easement qualifying under §§ 10.1-1009 1016, or §§ 10.1-1700 1705, of the Code (or a comparable prior or subsequent provision of the Code);
- 10. Any state scenic river;
- 11. Any lands owned by a municipality or school district; and
- 12. Any federal, state or local battlefield, park, forest, game or wildlife preserve, recreational area, or similar facility. Features, sites, and the like listed in 1 through 11 above need not be identified again.

Response: <u>Pamunkey River Rebuild</u>

- 1. Sweet Hall (DHR ID 050-0067) is within the existing right-of-way and Ruffin's Ferry (DHR ID 050-0070) lies adjacent to the existing right-of-way, both of which are NHRP-Listed.
- 2. Sweet Hall and Ruffin's Ferry are also in the Virginia Landmark Register.
- 3. None.
- 4. None.
- 5. None.
- 6. None.
- 7. None.
- 8. None.
- 9. See Attachment III.G.1.

Two conservation easements are located adjacent to the right-of-way in King William County. Sweet Hall Marsh is a conservation easement on privately owned land, located on the east side of the right-of-way along the Pamunkey River. The site is part of the Chesapeake Bay National Estuarine Research Reserve system, administered by the Virginia Institute of Marine Science, the College of William and Mary, and the National Oceanic and Atmospheric Administration. The site represents extensive tidal fresh water marsh ecosystem and supports two exemplary natural communities, sensitive joint vetch (*Aeschynomene virginica*) and rare skipper (*Problema australis*).

A DHR easement appears to abut the west side of the right-of-way along the Pamunkey River. The easement is associated with Ruffins Ferry (DHR ID 050-0070) and a copy of the easement has been obtained from DHR. The easement agreement indicates that the location of any new roads or any new utility lines on the property (except over existing rights-of-way) shall be subject to written approval of the Grantee.

- 10. The Pamunkey River has been identified as a potential river for inclusion within the state scenic river program, but has not been designated as a scenic river.
- 11. None.
- 12. The Pamunkey River Rebuild crosses the Captain John Smith Chesapeake National Historic Trail.

Mattaponi River Rebuild

- 1. King and Queen County Court House Green Historic District (DHR ID 049-5001) lies approximately 0.5 mile northwest of the Mattaponi River Rebuild.
- King and Queen County Court House Green Historic District is also in the Virginia Landmark Register. King and Queen County Court House (DHR ID 049-0036) was determined eligible for listing on the NRHP in 1994. These resources are located approximately 0.5 mile northwest of the Mattaponi River Rebuild.
- 3. None.
- 4. None.
- 5. None.
- 6. None.
- 7. None.
- 8. None.
- 9. See Attachment III.G.2.

One conservation easement is located within the Mattaponi River Rebuild rightof-way in King William County. This is a Department of Forestry conservation easement located on privately owned land.

- 10. The Mattaponi River has been identified as a potential river for inclusion within the state Scenic River program, but has not been designated as a Scenic River.
- 11. None.
- 12. The Mattaponi River Rebuild crosses the Captain John Smith Chesapeake National Historic Trail and the Mattaponi Blueway Trail.

I-64 Rebuild

- 1. None.
- 2. None.
- 3. None.
- 4. None.

- 5. None.
- 6. None.
- 7. None.
- 8. None.
- 9. None.
- 10. None.
- 11. None.
- 12. None.

Diascund Rebuild

- 1. None.
- 2. None.
- 3. None.
- 4. None.
- 5. None.
- 6. None.
- 7. None.
- 8. None.
- 9. None.
- 10. None.
- 11. The City of Newport News retains ownership of the Diascund Creek Reservoir. The reservoir is a local recreation area that is operated jointly by the City of Newport News, James City County, and the Division of Game and Inland Fisheries.
- 12. None.





III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

H. List any registered aeronautical facilities (airports, helipads) where the proposed route would place a structure or conductor within the federallydefined airspace of the facilities. Advise of contacts, and results of contacts, made with appropriate officials regarding the effect on the facilities' operations.

Response:

The Federal Aviation Administration ("FAA") is responsible for overseeing air transportation in the United States. The FAA manages air traffic in the United States and evaluates physical objects that may affect the safety of aeronautical operations through an obstruction evaluation. The prime objective of the FAA in conducting an obstruction evaluation is to ensure the safety of air navigation and the efficient utilization of navigable airspace by aircraft.

The FAA's website (<u>https://oeaaa.faa.gov/oeaaa/external/portal.jsp</u>) was reviewed to identify airports within 10 nautical miles of the proposed Line #224 Partial Rebuild Projects.

Pamunkey River Rebuild

One airport was identified, Middle Peninsula Regional (FYJ), approximately 7.4 nautical miles southeast in Mattaponi, Virginia. The FAA's online Notice Criteria Tool was used in order to evaluate whether the proposed Pamunkey River Rebuild would require notification to the FAA. Based on preliminary engineering information, the Pamunkey River Rebuild does exceed Notice Criteria and notification to the FAA is required due to the proximity to a navigation facility that may impact the assurance of navigation signal reception. Form 7460-1 was filed with the FAA in May 2018 but a determination had not yet been received at the time of this filing.

Mattaponi River Rebuild

Based on this review, one airport was identified, Middle Peninsula Regional (FYJ), approximately 9.5 nautical miles southeast in Mattaponi, Virginia. The FAA's online Notice Criteria Tool was used in order to evaluate whether the proposed Mattaponi River Rebuild would require notification to the FAA. Based on preliminary engineering information, the Mattaponi River Rebuild does not exceed Notice Criteria and notification to the FAA is not required.

I-64 Rebuild

Based on this review, two airports were identified, Middle Peninsula Regional (FYJ), approximately 8.1 nautical miles southeast in Mattaponi, Virginia and New Kent County (W96), approximately 9.7 nautical miles to the west. The FAA's online Notice Criteria Tool was used in order to evaluate whether the proposed I-64 Rebuild would require notification to the FAA. Based on preliminary

engineering information, the I-64 Rebuild does exceed Notice Criteria and notification to the FAA is required due to the proximity to a navigation facility and may impact the assurance of navigation signal reception. Form 7460-1 was filed with the FAA in May 2018 but a determination had not yet been received at the time of this filing.

Diascund Rebuild

Based on this review, one airport was identified, Middle Peninsula Regional (FYJ), approximately 9.0 nautical miles northeast in Mattaponi, Virginia. The FAA's online Notice Criteria Tool was used in order to evaluate whether the proposed Diascund Rebuild would require notification to the FAA. Based on preliminary engineering, the Diascund Rebuild does exceed Notice Criteria and notification to the FAA is required due to the proximity to a navigation facility and may impact the assurance of navigation signal reception. Form 7460-1 was filed with the FAA and a determination of no hazard was found. The determination is included as Attachment 2.N.4 of the DEQ Supplement.
III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

I. Advise of any scenic byways that are in close proximity to or that will be crossed by the proposed transmission line and describe what steps will be taken to mitigate any visual impacts on such byways. Describe typical mitigation techniques for other highways' crossings.

Response: Pamunkey River Rebuild

The existing right-of-way to be used for the Pamunkey River Rebuild does not cross any scenic Virginia byways. Use of the existing right-of-way minimizes or eliminates additional impacts at any rural road crossings.

Mattaponi River Rebuild

The existing right-of-way to be used for the Mattaponi River Rebuild does not cross any scenic Virginia byways. The Trail (SR 14) is a designated scenic byway that passes approximately 0.6 mile north of the Mattaponi River Rebuild. The existing Line #224 Transmission Line crosses The Trail near King and Queen Court House but that portion of the line is not part of this proposed Rebuild Projects. Use of the existing right-of-way minimizes or eliminates additional impacts at any road crossings.

I-64 Rebuild

The existing right-of-way to be used for the I-64 Rebuild does not cross any scenic Virginia byways. Use of the existing right-of-way minimizes or eliminates additional impacts at any road crossings.

Diascund Rebuild

The existing right-of-way to be used for the Diascund Rebuild does not cross any scenic Virginia byways. Use of the existing right-of-way minimizes or eliminates additional impacts at any rural road crossings.

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

J. Identify coordination with appropriate municipal, state, and federal agencies.

Response:

The Company met with representatives of King William County, King and Queen County, and New Kent County on March 19, March 22, and March 29, 2018, respectively.

On March 19, 2018, the Company met with Chief Frank Adams of the federally recognized Upper Mattaponi Native American tribe to present the Rebuild Projects and solicit comments. On April 19, 2018, the Company also met with Chief Mark Custalow of the state-recognized Mattaponi Native American tribe to present the Rebuild Projects and solicit comments. In addition, the Company offered to meet with Chief Robert Gray of the federally-recognized Pamunkey Native American tribe, but the offer was declined. Also, in April of 2018, the Company solicited comments via letter from several additional federally recognized Native American including the Chickahominy, Eastern Chickahominy, tribes. Monacan. Nansemond, Pamunkey, and Rappahannock, and several state recognized Native American tribes, including the Cheroenhaka, Nottoway of Virginia, and Patawomeck. A copy of the letter sent to federally and state recognized Native American tribes is included as Attachment III.J.1. On May 20, 2018, the Company received an email from Chief Mark Custalow of the Mattaponi Tribe stating his opposition to the Mattaponi River Rebuild due to concerns for environmental impacts to wetlands and the Mattaponi River. The Company offered to meet with Chief Custalow again to better understand his concerns, but the offered was declined. A copy of the email exchange is included as Attachment.III.J.2.

Below is description of any additional municipal, state, or federal agency coordination that has taken place or is expected to take place for each component of the Line #224 Partial Rebuild Projects.

Pamunkey River Rebuild

- A wetland delineation has been completed and a request for preliminary jurisdictional determination has been submitted to the Corps. A copy of the wetland delineation map is included in Attachment 2.D.1 of the DEQ Supplement.
- A Stage I Analysis has been prepared and submitted to DHR. A copy of the Stage I Analysis is included as Attachment 2.H.1 of the DEQ Supplement.
- Notice to the FAA was given for the proposed structures as directed by the results of the Notice Criteria Tool.
- Coordination with Corps, DEQ, Virginia Marine Resources Commission ("VMRC"), New Kent County Local Wetlands Board, and King William County Local Wetlands Board will take place to obtain necessary approvals for the Project. It is expected that a Joint Permit Application will be required to obtain authorization for the Pamunkey River Rebuild from these agencies. A letter soliciting a project review was sent to these entities and is included as Attachment 2.B.1 of the DEQ Supplement.

• A sensitive joint-vetch survey has been completed and is expected to be submitted to USFWS for review as part of this portion of the Line #224 Partial Rebuild Project's Joint Permit Application. A copy of the survey is included as Attachment 2.F.4 of the DEQ Supplement.

Mattaponi River Rebuild

- A wetland delineation has been completed and a request for preliminary jurisdictional determination has been submitted to the Corps. A copy of the wetland delineation map is included in Attachment 2.D.2 of the DEQ Supplement.
- A Stage I Analysis has been prepared and submitted to DHR. A copy of the Stage I Analysis is included as Attachment 2.H.2 of the DEQ Supplement.
- Coordination with Corps, DEQ, VMRC, New Kent County Local Wetlands Boards, and King William County Local Wetlands Board will take place as appropriate to obtain necessary approvals for the Project. It is expected that a Joint Permit Application will be required to obtain authorization for the Mattaponi River Rebuild from these agencies. A letter soliciting a project review was sent to these entities and is included as Attachment 2.B.1 of the DEQ Supplement.
- A sensitive joint-vetch survey has been completed and is expected to be submitted to USFWS for review as part of this portion of the Line #224 Partial Rebuild Project's Joint Permit Application. A copy of the survey is included as Attachment 2.F.5 of the DEQ Supplement.

I-64 Rebuild

- A wetland delineation has been completed and a request for preliminary jurisdictional determination has been submitted to the Corps. A copy of the wetland delineation map is included in Attachment 2.D.3 of the DEQ Supplement.
- Notice to the FAA was given for the proposed structures as directed by the results of the Notice Criteria Tool.
- Coordination with Corps, DEQ, and VMRC will take place as appropriate to obtain necessary approvals for the project. A letter soliciting a project review was sent to these entities and is included as Attachment 2.B.1 of the DEQ Supplement.

Diascund Rebuild

- A wetland delineation has been completed and a request for preliminary jurisdictional determination has been submitted to the Corps. A copy of the wetland delineation map is included in Attachment 2.D.4 of the DEQ Supplement.
- Notice to the FAA was given as directed by the results of the Notice Criteria Tool. A determination of no hazard was found. The determination is included as Attachment 2.N.4 of the DEQ Supplement.

- Coordination with Corps, DEQ, and VMRC will take place as appropriate to obtain necessary approvals for the Project. A letter soliciting a project review was sent to these entities and is included as Attachment 2.B.1 of the DEQ Supplement.
- Since the Diascund Creek Reservoir is managed jointly by the City of Newport News and the Department of Game and Inland Fisheries, coordination with these two entities also expected to be required for authorization of the Diascund Rebuild. A letter soliciting a project review was sent to both entities and is included as Attachment 2.B.1 and Attachment 2.F.2 of the DEQ Supplement.

Attachment III.J.1 Page 1 of 3

Dominion Energy Virginia Dominion Energy North Carolina Electric Transmission 701 East Cary Street, Richmond, VA 23219 DominionEnergy.com



April 4, 2018

Name Address City, State Zip

Proposed Line 224 Partial Rebuild Project

Dear Salutation,

At Dominion Energy, we are committed to continually reviewing and analyzing our energy infrastructure to provide the most safe and reliable electric service. We are currently exploring options to address portions of an aging 230 kilovolt (kV) electric transmission line located in Virginia's New Kent, King William and King and Queen counties. This work is necessary to maintain reliability for our customers.

We are dedicated to finding the best solution for our long-term needs while taking into account the community's perspective. It is important to understand any considerations key stakeholders feel are important as we move through the planning process. We would like to hear from you before filing an application with the Virginia State Corporation Commission in June 2018. For reference, recipients of this letter include other county and state-wide historic, cultural and scenic organizations and Native American tribes.

This project will rebuild portions of Line 224 – a 230 kV line connecting our Lanexa and Dunnsville substations (please see enclosed overview map). A total of 21 structures at four key crossings need to be replaced due to the deteriorating condition of concrete foundations supporting the structures. The majority of the structures also feature brown, weathering steel, which is nearing the end of its service life. These critical structures carry wires over Diascund Reservoir, Interstate 64, and the Pamunkey and Mattaponi rivers. The structures have been in operation for over five decades and need to be replaced to ensure the integrity of the power grid.

Our plan is to rebuild the line in a manner that:

- Creates no new right of way
- Keeps structures in the same general location as existing structures
- Provides long-term reliability and durability without excessive maintenance
- Delivers operational system flexibility to meet future needs
- Complies with mandatory standards to ensure safety and reliability

If you have any questions or concerns, or would like to set up a meeting to discuss the project in greater detail, please contact me by sending an email to Timothy.B.Winsky@dominionenergy.com or calling 804-771-6705.

April 4, 2018 Page Two

We also invite you to attend one of our upcoming informational open houses for an opportunity to speak with our electric transmission experts about the project. Three open houses will be held in May 2018 – one in each of the counties the line runs through. There will be no formal presentations at these events. Instead, the format is open with various informational stations. Please feel free to attend as your time allows. We will contact you soon with more information once venues and dates are confirmed. We hope you can join us.

Additional project updates will be posted online at www.DominionEnergy.com/line224. The site is currently under development and will be available soon.

Sincerely,

TEB.W

Tim Winsky Electric Transmission Communications

Attachment III.J.1 Page 3 of 3



Line 224 Partial Rebuild Project - Overview Map



Timothy B Winsky (PowerDelivery - 1)

From:	
Sent:	
To:	
Subject:	

Timothy B Winsky (PowerDelivery - 1) Wednesday, May 23, 2018 3:49 PM 'Mark Custalow' RE: Line 224 Meeting - Thank You

Good Afternoon Chief Custalow,

Thank you for the note. We believe we can successfully replace the structures adjacent to the Mattaponi River in a way that appropriately minimizes and mitigates for any environmental impacts to the wetlands and the river, consistent with federal and state requirements. We would welcome an opportunity to talk with you again to provide you with a more in-depth understanding of the facts related to the project near the Mattaponi River, including to share some of the minimally invasive construction techniques we plan to use, and to give us a chance to better understand your concerns. I would be happy to set up a meeting with our team of project experts when you are available.

Please let me know if you have any questions.

Sincerely,

Tim Winsky O: 804-771-6705 C: 757-376-0546



From: Mark Custalow [mailto:Mark.Custalow@abm.com] Sent: Sunday, May 20, 2018 10:35 PM To: Timothy B Winsky (PowerDelivery - 1) Subject: [External] RE: Line 224 Meeting - Thank You

Tim,

Thank you and your team for tacking the time to meet with me. I would like to inform you that the Mattaponi tribe is opposed to the plans for rebuilding of line 224 across the Mattaponi river. We feel that the environmental impact to the wetlands and the river would be irreversible. Please except this email as our objection to the project.

Best regards,

Chief Mark T. Custalow Mattaponi Indian Reservation

From: Timothy B Winsky [mailto:timothy.b.winsky@dominionenergy.com]
Sent: Monday, April 23, 2018 11:19 AM
To: 'mcustalow@gcaservices.com'
Subject: [EXTERNAL] Line 224 Meeting - Thank You

Good Morning Chief Custalow,

It was a pleasure to meet you last week. Thanks so much for making the trip to Richmond to discuss our plans to rebuild portions of Line 224. I hope we were able to properly address and answer your initial concerns and questions. Please don't hesitate to contact me if you have any additional questions or if anything comes up when you announce the project to your community.

I look forward to seeing you again soon – maybe at an open house next month.

Sincerely,

Tim

Timothy B. Winsky Communications Consultant Electric Transmission

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III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

K. Identify coordination with any non-governmental organizations or private citizen groups.

Response:

: In April 2018, the Company solicited comments via letter from the nongovernmental organizations and private citizen groups, identified below. A copy of the letter is included as <u>Attachment III.J.1</u>. Additionally, Carl Fischer, Treasurer of the Archeological Society of Virginia, attended the Company's open house on May 9, 2018.

Name	Organization
Ms. Elizabeth S. Kostelny	Preservation Virginia
Mr. Thomas Gilmore	Civil War Trust
Mr. Jim Campi	Civil War Trust
Mr. Adam Gillenwater	Civil War Trust
Ms. Kym Hall	Colonial National Historical Park
Mr. Jack Gary	Council of Virginia Archaeologists
Ms. Leighton Powell	Scenic Virginia
Mr. Alexander Macaulay	Macaulay & Jamerson
Ms. Sharee Williamson	National Trust for Historic Preservation
Mr. Dan Holmes	Piedmont Environmental Council
Dr. Newby-Alexander	Norfolk State University
Ms. Mary Frances Wilkerson	None
Mr. Dave Dutton	Dutton + Associates, LLC

III. IMPACT OF LINE ON SCENIC, ENVIRONMENTAL AND HISTORIC FEATURES

L. Identify any environmental permits or special permissions anticipated to be needed.

Response: See tables below.

Pamunkey River Rebuild and Mattaponi River Rebuild

Potential Permits

Activity	Permit	Agency
Impacts to wetlands and waters	Nationwide	U.S. Army Corps of Engineers
of the U.S.	Permit 12	
Impacts to wetlands and waters	Virginia Water	Virginia Department of
of the U.S.	Protection Permit	Environmental Quality
Work within, over or under	Subaqueous	Virginia Marine Resources
state subaqueous bottom	Bottom Permit	Commission
Work within tidal wetlands, up	Wetlands Permit	King William County Local
to1.5 times mean tidal range		Wetlands Board
Work within tidal wetlands, up	Wetlands Permit	New Kent County Local
to1.5 times mean tidal range		Wetlands Board
Discharges of Stormwater from	Construction	Virginia Department of
Construction Activities	General Permit	Environmental Quality
Work within state right-of-way	Land Use Permit	Virginia Department of
		Transportation

I-64 Rebuild and Diascund Rebuild

Potential Permits

Activity	Permit	Agency	
Impacts to wetlands and waters	Nationwide	U.S. Army Corps of	
of the U.S.	Permit 12	Engineers	
Impacts to wetlands and waters	Virginia Water	Virginia Department of	
of the U.S.	Protection Permit	Environmental Quality	
Discharges of Stormwater from	Construction	Virginia Department of	
Construction Activities	General Permit	Environmental Quality	
Work within state right-of-way	Land Use Permit	Virginia Department of	
		Transportation	

IV. HEALTH ASPECTS OF ELECTROMAGNETIC FIELDS ("EMF")

- A. Provide the calculated maximum electric and magnetic field levels that are expected to occur at the edge of the ROW. If the new transmission line is to be constructed on an existing electric transmission line ROW, provide the present levels as well as the maximum levels calculated at the edge of ROW after the new line is operational.
- Response: Public exposure to magnetic fields is best estimated by field levels from the power lines calculated at annual average loading. For any day of the year, the electric magnetic field ("EMF") levels associated with average conditions provide the best estimate of potential exposure. Maximum (peak) values are less relevant as they may occur for only a few minutes or hours each year.

This section describes the levels of EMF associated with the existing transmission line and the rebuilt 230 kV transmission line. EMF levels are provided for both historical (2017) and future (2022) annual average and maximum (peak) loading conditions

Existing lines – Average historical loading in 2017

EMF levels were calculated for the existing lines at the *historical average* load conditions shown in the table below:

T INTE #	VOLTAGE (5%		AVERAGE
LINE #	OVERVOLIAGE)	ATTACHMENTS	(Amps)
224	242 kV	II.A.5.e, m, q & w	166.8

The field levels were calculated at mid-span where the conductors were at historical average load operating temperature and above the minimum National Electric Safety Code^{®19} ("NESC") ground clearance. The EMF levels at each side of the right-of-way or tree clearing edge on Company-owned property for the existing lines at historical average loading are listed below:

	Northern Edge		Southern Edge	
Attachment	Electric Field	Magnetic	Electric Field	Magnetic Field
	(kV/m)	Field (mG)	(kV/m)	(mG)
II.A.5.e	0.056	1.565	0.058	2.589
II.A.5.m	0.058	1.581	0.072	1.484
II.A.5.q	0.186	2.106	0.186	2.109
II.A.5.w	0.078	1.306	0.146	1.598

¹⁹ Registered trademark of United States Steel Corporation.

Existing lines – Peak historical loading in 2017

EMF levels were calculated for the existing lines at the *historical peak* load conditions shown in the table below:

	VOLTAGE (5%		
LINE #	OVERVOLTAGE)	ATTACHMENTS	PEAK (Amps)
224	242 kV	II.A.5.e, m, q & w	462

The field levels were calculated at mid-span where the conductor is the closest to the ground and the conductors were at historical peak load operating temperature and above the minimum NESC ground clearance. The EMF levels at each side of the right-of-way or tree clearing edge on Company-owned property for the existing lines at historical peak loading are listed below:

	Northern Edge		South	ern Edge
<u>Attachment</u>	<u>Electric</u>			
	Field	<u>Magnetic</u>	Electric Field	Magnetic Field
	(kV/m)	Field (mG)	(kV/m)	(mG)
II.A.5.e	0.056	4.334	0.058	7.172
II.A.5.m	0.058	4.38	0.072	4.11
II.A.5.q	0.186	5.834	0.186	5.841
II.A.5.w	0.078	3.618	0.146	4.427

Proposed Rebuild Projects – Average historical loading in 2017

EMF levels were calculated for the proposed and remaining existing lines at a *historical average* load condition shown in the table below:

LINE	VOLTAGE (5%		AVERAGE
#	OVERVOLTAGE)	ATTACHMENTS	(Amps)
224	242 kV	II.A.5.f, n, r & x	166.8

The field levels were calculated at mid-span where the conductor is the closest to the ground and the conductors were at historical average load operating temperature and above the minimum NESC ground clearance. The EMF levels at each side of the right-of-way or tree clearing edge on Company-owned property for the proposed and remaining existing lines at historical average loading are listed below:

	Northern Edge		Southern Edge	
Attachment	Electric Field	Magnetic	Electric Field	Magnetic
	(kV/m)	<u>Field (mG)</u>	(kV/m)	Field (mG)
II.A.5.f	0.019	3.364	0.026	3.771
II.A.5.n	0.097	2.502	0.128	2.719
II.A.5.r	0.043	1.708	0.043	2.445
II.A.5.x	0.062	1.324	0.14	1.706

Proposed Rebuild Projects – Peak historical loading in 2017

EMF levels were calculated for the proposed and remaining existing lines at a *historical peak* load condition shown in the table below:

LINE	VOLTAGE (5%		
#	OVERVOLTAGE)	ATTACHMENTS	PEAK (Amps)
224	242 kV	II.A.5.f, n, r & x	462

The field levels were calculated at mid-span where the conductor is the closest to the ground and the conductors were at historical peak load operating temperature and above the minimum NESC ground clearance. The EMF levels at each side of the right-of-way or tree clearing edge on Company-owned property for the proposed and remaining existing lines at historical peak loading are listed below:

	Northern Edge		Southern Edge	
Attachment	4 1 1		E	
	Electric Field	<u>Magnetic</u>	Electric Field	Magnetic Field
	(kV/m)	Field (mG)	(kV/m)	(mG)
II.A.5.f	0.019	9.317	0.026	10.444
II.A.5.n	0.097	6.93	0.128	7.532
II.A.5.r	0.043	4.73	0.043	6.772
II.A.5.x	0.062	3.667	0.14	4.725

Proposed Rebuild Projects - Projected average loading in 2020

EMF levels were calculated for the proposed and remaining existing lines at a *projected average* load condition shown in the table below:

LINE #	VOLTAGE (5% OVERVOLTAGE)	ATTACHMENTS	AVERAGE (Amps)
224	242 kV	II.A.5.f, n, r & x	172.5

The field levels were calculated at mid-span where the conductor is the closest to the ground and the conductors were at historical average load operating temperature and above the minimum NESC ground clearance. The EMF levels at each side of the right-of-way or tree clearing edge on Company-owned property for the proposed and remaining existing lines at projected average loading are listed below:

	Northern Edge		Southern Edge	
Attachment	<u>Electric</u>			_
	Field	<u>Magnetic</u>	Electric Field	Magnetic Field
	(kV/m)	Field (mG)	(kV/m)	(mG)
II.A.5.f	0.019	3.479	0.026	3.899
II.A.5.n	0.097	2.587	0.128	2.812
II.A.5.r	0.043	1.766	0.043	2.528
II.A.5.x	0.062	1.369	0.14	1.764

Proposed Rebuild Projects – Projected peak loading in 2020

EMF levels were calculated for the proposed and remaining existing lines at a *projected peak* load condition shown in the table below:

LINE	VOLTAGE (5%		
#	OVERVOLTAGE)	ATTACHMENTS	PEAK (Amps)
224	242 kV	II.A.5.f, n, r & x	477.7

The field levels were calculated at mid-span where the conductor is the closest to the ground and the conductors were at historical average load operating temperature and above the minimum NESC ground clearance. The EMF levels at each side of the right-of-way or tree clearing edge on Company-owned property for the proposed and remaining existing lines at projected peak loading are listed below:

	Northern Edge		Southern Edge	
Attachment	Electric Field	Magnetic	Electric Field	Magnetic Field
	(kV/m)	Field (mG)	(kV/m)	(mG)
II.A.5.f	0.019	9.634	0.026	10.798
II.A.5.n	0.097	7.165	0.128	7.788
II.A.5.r	0.043	4.891	0.043	7.002
II.A.5.x	0.062	3.792	0.14	4.885

IV. HEALTH ASPECTS OF ELECTROMAGNETIC FIELDS ("EMF")

B. If the Applicant is of the opinion that no significant health effects will result from the construction and operation of the line, describe in detail the reasons for that opinion and provide references or citations to supporting documentation.

Response: The conclusions of multidisciplinary scientific review panels assembled by national and international scientific agencies during the past two decades are the foundation of the Company's opinion that no adverse health effects will result from the operation of the proposed Rebuild Project. Each of these panels has evaluated the scientific research related to health and power-frequency EMF and provided conclusions that form the basis of guidance to governments and industries. The Company regularly monitors the recommendations of these expert panels to guide their approach to EMF.

The most recent major reviews on this topic include the report of the Scientific Committee on Emerging and Newly Identified Health Risks ("SCENIHR") of the European Commission, which was published in 2015. The SCENIHR report, similar to previous reviews, found that the scientific evidence does not confirm the existence of any adverse health effects of environmental or community exposures. This conclusion is consistent with conclusions of previous reviews conducted for other agencies, including the European Health Risk Assessment Network on Electromagnetic Fields Exposure ("EFHRAN"), the International Commission on Non-Ionizing Radiation Protection ("ICNIRP"), the World Health Organization ("WHO"), and the International Committee on Electromagnetic Safety ("ICES") (EFHRAN, 2010, 2012; ICNIRP, 2010; WHO, 2007; ICES, 2002).

Research on this topic varies widely in approach. Some studies evaluate the effects of high EMF exposures not typically found in people's day-to-day lives, while others evaluate the effects of common, weaker EMF exposures. Studies have evaluated the possibility of long-term effects (e.g., cancer, neurodegenerative diseases, reproductive effects) and others investigated short-term biological responses. Altogether, this research includes hundreds of epidemiologic studies of people in their natural environment and many more laboratory studies of animals (*in vivo*) and isolated cells and tissues (*in vitro*). Standard scientific procedures, such as the weight-of-evidence methods, were used by the expert panels to identify, review, and summarize the results of this large and diverse research.

The general scientific consensus of the health agencies that have reviewed this research is that the scientific evidence does not show that common sources of EMF in the environment, including transmission lines and other parts of the electric system, appliances, etc., are a cause of any adverse health effects. The WHO, for example, states on their website: "Based on a recent in-depth review of the scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields" (WHO, 2018).

Thus, based on the conclusions of scientific reviews and the levels of EMF associated with the Rebuild Project, the Company has determined that no adverse health effects will result from the operation of the Rebuild Project.

References

European Health Risk Assessment Network on Electromagnetic Fields Exposure (EFHRAN). Report on the Analysis of Risks Associated to Exposure to EMF: *In Vitro* and *In Vivo* (Animals) Studies. Milan, Italy: EFHRAN, 2010.

European Health Risk Assessment Network on Electromagnetic Fields Exposure (EFHRAN). Risk Analysis of Human Exposure to Electromagnetic Fields (Revised). Report D2 of the EFHRAN Project. Milan, Italy: EFHRAN, 2012.

International Commission on Non-ionizing Radiation Protection (ICNIRP). Guidelines for limiting exposure to time-varying electric and magnetic fields (1 Hz to 100 kHz). Health Phys 99: 818-36, 2010.

International Committee on Electromagnetic Safety (ICES). IEEE Standard for Safety Levels with Respect to Human Exposure to Electromagnetic Fields 0 to 3 kHz. Piscataway, NJ: IEEE, 2002; Reaffirmed 2007.

Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR). Opinion on Potential Health Effects of Exposure to Electromagnetic Fields (EMF). Brussels, Belgium: European Commission, 2015.

World Health Organization (WHO). Environmental Health Criteria 238: Extremely Low Frequency (ELF) Fields. Geneva, Switzerland: World Health Organization, 2007.

World Health Organization (WHO). Electromagnetic fields (EMF). World Health Organization, 2018.

http://www.who.int/peh-emf/about/WhatisEMF/en/index1.html (last accessed May 10, 2018).