

June 5, 2017

**BY HAND DELIVERY**

Joel H. Peck, Clerk  
Document Control Center  
State Corporation Commission  
1300 East Main Street  
Tyler Building – 1st Floor  
Richmond, Virginia 23219

*Application of Virginia Electric and Power Company  
For approval and certification of electric facilities for  
Rebuild of Possum Point-Smoketown 115 kV Lines #18 and #145  
Case No. PUR-2017-00078*

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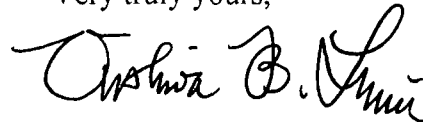
Dear Mr. Peck:

Please find enclosed for filing in the above-captioned proceeding an unbound original and fifteen (15) copies of the application for approval of electric facilities on behalf of Virginia Electric and Power Company (the "Company"). This filing contains the Application, Appendix, DEQ Supplement, Direct Testimony and Exhibits.

As indicated in Section II.A.9.b of the Appendix contained in the enclosed filing, three (3) copies of a map showing the proposed route of the transmission line rebuild project described in the application were hand delivered to the Commission's Division of Energy Regulation today. The Company also delivered to the Division of Energy Regulation today a CD-ROM containing the digital geographic information system (GIS) map required by § 56-46.1 of the Code of Virginia, which is Attachment II.A.2 to the Appendix contained in the enclosed filing.

Please do not hesitate to call if you have any questions in regard to the enclosed.

Very truly yours,



Vishwa B. Link

Enclosures

cc: William H. Chambliss, Esq.  
David J. DePippo, Esq.

All federal, state and local agencies and officials listed in Section V.C. of the Appendix



**Dominion  
Energy®**

**Application, Appendix,  
DEQ Supplement, Direct  
Testimony and Exhibits of  
Virginia Electric and  
Power Company**

**Before the State Corporation  
Commission of Virginia**

**Rebuild of Possum Point-  
Smoketown 115 kV Lines #18  
and #145**

**Application No. 282**

**Case No. PUR-2017-00078**

**Filed: June 5, 2017**



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**COMMONWEALTH OF VIRGINIA  
BEFORE THE  
STATE CORPORATION COMMISSION**

**APPLICATION OF  
VIRGINIA ELECTRIC AND POWER COMPANY  
FOR APPROVAL AND CERTIFICATION  
OF ELECTRIC FACILITIES**

**Rebuild of Possum Point-Smocketown 115 kV Lines #18 and #145**

**Application No. 282**

**Case No. PUR-2017-00078**

**Filed: June 5, 2017**

**COMMONWEALTH OF VIRGINIA  
BEFORE THE  
STATE CORPORATION COMMISSION**

Application of	)	
	)	
Virginia Electric and Power Company	)	
	)	Case No. PUR-2017-00078
	)	
For approval and certification of electric	)	
transmission facilities under Va. Code	)	
§ 56-46.1 and the Utility Facilities Act,	)	
Va. Code § 56-265.1 <i>et seq.</i>	)	

**APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY  
FOR APPROVAL AND CERTIFICATION OF ELECTRIC FACILITIES FOR  
REBUILD OF POSSUM POINT-SMOKETOWN 115 kV LINES #18 AND #145**

Virginia Electric and Power Company (“Dominion Virginia Energy” or the “Company”)<sup>1</sup> respectfully shows as follows:

1. Dominion Energy Virginia is a public service corporation organized under the laws of the Commonwealth of Virginia furnishing electric service to the public within its Virginia service territory. The Company also furnishes electric service to the public in portions of North Carolina. Dominion Energy Virginia’s electric system, consisting of facilities for the generation, transmission, and distribution of electric energy, is interconnected with the electric systems of neighboring utilities, and is a part of the interconnected network of electric systems serving the continental United States. By reason of its operation in two

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<sup>1</sup> Effective May 10, 2017, Dominion Resources, Inc., the Company’s publicly held parent company, changed its name to Dominion Energy, Inc. As part of this corporate-wide rebranding effort, Virginia Electric and Power Company has changed its “doing business as” (“d/b/a”) names in Virginia and North Carolina effective May 12, 2017. In Virginia, the Company’s d/b/a name has been changed from Dominion Virginia Power to Dominion Energy Virginia, and in North Carolina the d/b/a name has been changed from Dominion North Carolina Power to Dominion Energy North Carolina. The Company’s legal corporate entity name “Virginia Electric and Power Company” will not be changing as a result of this rebranding effort.

states and its interconnections with other utilities, the Company is engaged in interstate commerce.

2. In order to perform its legal duty to furnish adequate and reliable electric service, Dominion Energy Virginia must, from time to time, replace and construct new transmission facilities in its system. The electric facilities proposed in this Application are necessary so that Dominion Energy Virginia can continue to provide reliable electric service to its customers, consistent with applicable reliability standards.

3. In order to maintain the structural integrity and reliability of its transmission system in compliance with mandatory North American Electric Reliability Corporation ("NERC") Reliability Standards, and to provide flexibility to support the future overall growth in the area, Dominion Energy Virginia proposes to rebuild, entirely within an existing right-of-way and Company-owned property, approximately 8.5 miles of existing 115 kV transmission lines, Possum Point-Smoketown Line #18 and Possum Point-Smoketown Line #145, located between the existing 115 kV switch yard at the Company's Possum Point Power Station site (the "Possum Point Switching Station" or "Possum Point Station") and the Northern Virginia Electric Cooperative ("NOVEC") Smoketown Delivery Point ("DP") entirely in Prince William County, Virginia, utilizing 230 kV design on all but the first 0.7-mile segment originating from the 115 kV switch yard at the Possum Point Power Station site, which will be rebuilt to 115 kV design in order to continue operating the line at 115 kV at present (the "Rebuild Project"). While the Rebuild Project proposes to construct the lines to be capable of operating at 230 kV, operation of the lines would continue at 115 kV until such time as needed to serve the Northern Virginia Load Area.

4. The Rebuild Project is necessary to assure that Dominion Energy Virginia can maintain and improve reliable electric service to customers served by Lines #18 and #145, which have been identified as nearing their end-of-life, consistent with the Company's Planning Criteria. As a transmission owner in PJM Interconnection, L.L.C.'s ("PJM") planning region, the Company fully participates in PJM's transmission planning process under PJM's Regional Transmission Expansion Plan ("RTEP") process. The Company is obligated under the PJM Operating Agreement to construct, operate, and own transmission facilities as designated by PJM in its annual RTEP. The Company submitted the Rebuild Project in April 2017 with the PJM Transmission Expansion Advisory Committee ("TEAC") for construction at 230 kV and operation at 115 kV. While this is consistent with how the Rebuild Project was originally submitted to the PJM TEAC in March 2015 and approved as part of the 2015 Regional Transmission Expansion Plan ("RTEP"), the Company resubmitted the project at the PJM Southern Sub-Regional RTEP ("SSRRTEP") Committee meeting in February 2016 for construction and operation at 115 kV; however, the change to 115 kV was not sent to the PJM Board of Managers at that time.

5. Following the first resubmission to the SSRRTEP in February 2016, in late July 2016, the Company's Energy Management System ("EMS") models and PJM started showing load issues on the section of Line #183 between NOVEC's Sowego and Independent Hill DPs. On August 13, 2016, PJM issued a Post-Contingency Local Load Relief Warning ("PCLLRW") for the section of 115 kV Line #183 between NOVEC's Sowego and Independent Hill DPs. A PCLLRW is issued by PJM to provide advance notice to a Transmission Owner of the potential for load shed in their area. It is issued in real time after all other means of transmission constraint control have been exhausted or until sufficient

generation is online to control the constraint within designated limits and timelines. In this case, the PCLLRW indicated that no generation or switching was available. The Company's preliminary investigation of the loads on Line #183 at the time of the PCLLRW indicates that they reached levels not projected to occur until 2021.

6. In addition, through its regular discussions with NOVEC, the Company was made aware of the potential for a large (approximately 70 MW) block load addition to NOVEC's Independent Hill DP. While a solution to resolve the load issue on Line #183 has not yet been determined, it could involve a conversion of Line #183 from 115 kV to 230 kV between Minnieville Junction and the Company's Elm Farm Substation, which would in turn likely involve a conversion of either Line #18 or Line #145 from 115 kV to 230 kV operation in order to create a 230 kV Possum Point-Elm Farm-Ox network.

7. Such a conversion would be consistent with "prudent utility practice" and the Company's proposed Rebuild Project. While the Rebuild Project is not capacity driven, it is prudent planning and engineering to design and build new overhead facilities with a 60+ year life expectancy to the maximum level of capacity and flexibility that can be obtained at a reasonable cost for long-term growth. This is especially true in the Northern Virginia Load Area, where the Company has made consistent efforts since at least 2009 to move load off the 115 kV system and convert to 230 kV where appropriate because of the dynamic nature of load growth in the area, particularly block load additions.

8. Given the issuance of the PCLLRW and NOVEC's potential block load additions, and consistent with prudent utility practice, the Company resubmitted the Rebuild Project in 2017 with the PJM TEAC for construction at 230 kV and operation at 115 kV, as originally submitted and approved in 2015. The Rebuild Project as proposed was presented at



the April 13, 2017 TEAC. PJM considered this an informational update since the Rebuild Project was originally approved for 230 kV construction as part of the 2015 RTEP, so no further action or approval of the Rebuild Project is needed from PJM.

9. The proposed Rebuild Project will remove aging infrastructure at the end of its service life, which the Company has determined is no longer cost-effective to continue to repair and replace on an individual basis, and replace it with 230 kV construction on all but a 0.7-mile segment (rebuilt to 115 kV) in order to operate the lines at 115 kV, thereby enabling the Company to maintain the overall long-term reliability of its transmission system, while also allowing flexibility to support the future overall growth in the area.

10. There is an immediate and current need for the Rebuild Project. The original in-service target date provided to PJM was December 31, 2016. Presuming Commission authorization by March 2018 and the ability to obtain outages, the Company anticipates that the Rebuild Project could be in service by December 2019. The estimated total cost of the proposed Rebuild Project, which assumes completion by December 2019, is approximately \$18.8 million (2017 dollars). There is minimal station work at the Possum Point Station associated with the Rebuild Project totaling approximately \$124,000. The necessity for the proposed Rebuild Project is described in more detail in Section I of the Appendix attached to this Application.

11. The proposed Rebuild Project will afford the best means of meeting the continuing need for reliable service while reasonably minimizing adverse impacts on the scenic, environmental, and historic assets of the area. The proposed route for the Rebuild Project is approximately 8.5 miles of existing transmission line corridor currently occupied by the existing 115 kV transmission Lines #18 and #145 within the existing right-of-way,

including 0.1 mile of existing right-of-way for individual lines tapping three NOVEC DPs, and on Company-owned power station property. The Rebuild Project location and route are described in Section III of the Appendix.

12. Based on consultations with the Virginia Department of Environmental Quality (“DEQ”), the Company has developed a supplement (“DEQ Supplement”) containing information designed to facilitate review and analysis of the proposed facilities by the DEQ and other relevant agencies. The DEQ Supplement is attached to this Application.

13. Dominion Energy Virginia’s experience, the advice of consultants, and a review of published studies by experts in the field have disclosed no causal link to harmful health or safety effects from electric and magnetic fields generated by the Company’s existing or proposed facilities. For further discussion of this topic, see Section IV of the Appendix.

14. A list of federal, state and local agencies and officials that reasonably may be expected to have an interest in the proposed Rebuild Project, and to which a copy of the Application will be sent, is set forth in Section V of the Appendix.

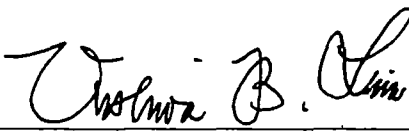
15. In addition to the information provided in the Appendix and the DEQ Supplement, this Application is supported by the prepared direct testimony of Company witnesses Mark R. Gill, Matthew B. Vinson, and Amanda M. Mayhew filed with this Application.

16. The Company respectfully requests that the Commission schedule a local public hearing in Prince William County to receive comments from the public pertaining to this Application. Additionally, the Company requests an opportunity to file a subsequent written response, through rebuttal testimony or otherwise, to the comments received at any public hearing.

WHEREFORE, Dominion Energy Virginia respectfully requests that the Commission:

- (a) direct that notice of this Application be given as required by § 56-46.1 of the Code of Virginia;
- (b) approve pursuant to § 56-46.1 of the Code of Virginia the proposed Rebuild Project as described herein;
- (c) grant a certificate of public convenience and necessity for the facilities under the Utility Facilities Act; and
- (d) schedule a local hearing in Prince William County to receive comments on this Application from public witnesses, and provide the Company an opportunity to file a written response through rebuttal testimony or otherwise.

## VIRGINIA ELECTRIC AND POWER COMPANY

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June 5, 2017