Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina Application of Dominion Energy North Carolina for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina E-22, Sub 562 and E-22, Sub 566

# **Post-Hearing Exhibit 4a**

#### COMMONWEALTH OF VIRGINIA

#### STATE CORPORATION COMMISSION

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#### APPLICATION OF

#### VIRGINIA ELECTRIC AND POWER COMPANY

For approval and certification of the proposed conversion of the Bremo Power Station under §§ 56-580 D and 56-46.1 of the Code of Virginia Case No. PUE-2012-00101

#### **APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY**

Pursuant to §§ 56-580 D and 56-46.1 of the Code of Virginia ("Va. Code") and the Filing Requirements in Support of Applications for Authority to Construct and Operate an Electric Generating Facility (20 VAC 5-302-10, *et seq.*) ("Generation Rules") of the State Corporation Commission of Virginia ("Commission"), Virginia Electric and Power Company ("Dominion Virginia Power" or the "Company"), by counsel, respectfully requests that the Commission amend and reissue a certificate of public convenience and necessity ("CPCN") approving the Company's proposal to modify the existing Units 3 and 4 at the Bremo Power Station currently owned and operated by the Company ("Bremo Units 3 and 4" or "Bremo") by converting them from coal to natural gas as their fuel source (the "Bremo Conversion"). The Company is seeking all necessary Commission approvals related to the conversion and operation of this station, which is located in Fluvanna County, Virginia along the James River. In support of this filing (the "Application"), the Company respectfully states as follows:

#### I. GENERAL INFORMATION

1. Dominion Virginia Power is a public service corporation organized under the laws of the Commonwealth of Virginia furnishing electric service to the public within its certificated service territory. The Company also supplies electric service to nonjurisdictional Oct 23 2019

customers in Virginia and to the public in portions of North Carolina. The Company is engaged in the business of generating, transmitting, distributing, and selling electric power and energy to the public for compensation. The Company is also a public utility under the Federal Power Act, and certain of its operations are subject to the jurisdiction of the Federal Energy Regulatory Commission. The Company is an operating subsidiary of Dominion Resources, Inc. Exhibit 1 to this Application includes the Company's principal corporate officers and directors, and the Company's most recent stockholder report and Form 10-K.

2. The Company's name and post office address are:

Virginia Electric and Power Company 120 Tredegar Street Richmond, Virginia 23219

3. The addresses and telephone numbers of the attorneys for the Company are:

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## II. AMENDED AND REISSUED CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL FOR RELATED CONSTRUCTION AND OPERATION

#### A. Summary

4. The Company proposes major unit modifications to convert its existing coal generation facility at Bremo to use natural gas as its fuel source. As discussed herein and in supporting testimony, effective and anticipated environmental compliance requirements will make it uneconomical to continue operating Bremo Units 3 and 4 on coal. In addition, in order to comply with the air permit for the Virginia City Hybrid Energy Center ("VCHEC"), the Company must convert Bremo to natural gas or effectively cease operating Bremo on coal by March 7, 2014, subject to Commission approval. The Company has examined a number of options and has determined that for a low capital investment of approximately \$53.4 million (excluding financing costs), Bremo can cost-effectively be converted to operate on natural gas, while continuing to provide economic benefits to customers and preserving 227 megawatts ("MW") (net) of needed capacity.

5. The Company is requesting that the Commission amend and reissue a CPCN for Bremo, and the Company is not seeking approval of a rate adjustment clause under Va. Code § 56-585.1 A 6 for this project. The Company intends to recover project costs for the Bremo Conversion through base rates.

6. The Bremo Conversion presents Dominion Virginia Power with an opportunity to repurpose and extend the operating life of an existing asset for the benefit of customers, the environment, and the Commonwealth as a whole. Specifically, the Bremo Conversion will extend the life of this facility and site to continue serving customer needs; preserve 227 MW (net) of existing needed capacity at a low cost of \$53.4 million (excluding financing costs); and provide direct and indirect economic benefits to customers. Further, the Bremo Conversion will

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provide significant environmental benefits for the Commonwealth and customers as compared to continued operations on coal.

7. The Bremo Conversion is a prudent investment because it is the lowest cost alternative for maintaining existing capacity, and is consistent with the Commonwealth's Energy Policy goals. The Bremo Conversion will not have an adverse impact on reliability and the \$53.4 million cost of the conversion (excluding financing costs) will be recovered through base rates. The Bremo Conversion will also minimize adverse environmental impact, support economic development and jobs in the Commonwealth, and serve the public convenience and necessity. The Company therefore submits the Bremo Conversion is in – and not contrary to – the public interest.

#### B. Background on the Existing Bremo Power Station and Reasons for Conversion

8. The Bremo Power Station is a coal-fired generation facility located in Fluvanna County along the James River, where the plant has been in operation since 1931. The station currently consists of two active units, Unit 3 and Unit 4, which began commercial operations in 1950 and 1958, respectively, and have a combined net capacity of 227 MW. Unit 3 has a net capacity of 71 MW and Unit 4 has a net capacity of 156 MW, making the units among the smallest coal-fired stations in the Company's generating fleet. The units' associated capacity factors have been declining over the years, and they no longer operate as baseload sources.

9. In addition, these units are not equipped with many of the necessary environmental controls that will be needed to meet effective and anticipated U.S. Environmental Protection Agency requirements. The cost to install the environmental upgrades is not costeffective for customers and, without conversion, would result in Bremo Units 3 and 4 being shut down and retired in the near future.

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10. The Company compared the Bremo Conversion to three different alternatives: (1) new generation, (2) market purchases, and (3) continued operations at Bremo on coal. The analysis conducted for this proceeding demonstrates the need for, and the benefits of, converting Bremo Units 3 and 4 to natural gas. Therefore, the Bremo Conversion was selected as the most reasonable and cost-effective means of addressing customers' growing needs from these options.

11. The timing for the proposed Bremo Conversion is also defined by the Company's VCHEC air permit. Condition 30 of the VCHEC air permit and subsequent discussions with the Virginia Department of Environmental Quality ("DEQ") direct the Company to effectively cease operating Bremo on coal and to initiate the conversion to natural gas, subject to Commission approval, within two years of VCHEC's first generator synchronization, which occurred on March 7, 2012. Accordingly, the Bremo Power Station is presently scheduled to discontinue the use of coal in the fall of 2013 and is expected to be converted to gas-fired operation, pursuant to Commission approval, to support summer 2014 peak demand.

### C. Major Unit Modifications

12. The Bremo Conversion will require major unit modifications to the existing Bremo Power Station. The scope of the Bremo Conversion will include boiler modifications required for gas-fired generation, new environmental equipment, new fuel handling facilities for natural gas, and additional major unit modifications to several other balance of plant systems. A competitive bid process to secure engineering, procurement and construction ("EPC") contractor services has resulted in a fixed-price contract for the majority of the work.

D. Need

13. The Company has a continuing need for generation capacity and energy. If the Bremo Conversion does not take place, the units would be retired due to the cost of compliance

with effective and anticipated environmental regulations, resulting in no capacity or energy being produced from the station. The Bremo Conversion allows the Company to maintain the full 227 MW (net) of peak capacity and provide peak energy at a lower cost, providing substantial value to customers versus the alternatives.

## E. Economic Benefits

14. For the capital investment of approximately \$53.4 million (excluding financing costs), the Bremo Conversion will preserve 227 MW of net capacity and is expected to provide a customer savings of approximately \$32 million net present value ("NPV") when compared to building new generation, approximately \$123.2 million NPV when compared to market purchases, and approximately \$155 million NPV when compared to continued operations on coal. The Company ran several sensitivities, which conclude that the Bremo Conversion is cost-effective to customers under a broad range of scenarios and is the best economic option for meeting customers' needs.

15. The Bremo Conversion is expected to provide other economic and economic development benefits as well. First, there will be direct investment and creation of jobs during the construction period. Second, the conversions will allow the Bremo Power Station to continue operations, providing direct and indirect benefits in terms of jobs and economic impacts. Natural gas operations will involve continued employment of personnel for the life of the unit, albeit at a lower level than associated with coal operations.

# F. Environmental Benefits

16. The Bremo Conversion will provide significant environmental benefits for the Commonwealth and customers by, among other things, reducing emissions of nitrogen oxides (" $NO_x$ "), sulfur dioxide (" $SO_2$ "), particulate matter ("PM"), carbon dioxide (" $CO_2$ "), and

mercury ("Hg"); reducing environmental land disturbance by utilizing an existing facility; and eliminating coal ash production and management.

## G. Fuel Supply

17. The Bremo Conversion will be fueled solely with natural gas and will be supplied via a new gas pipeline lateral and gas metering and pressure regulating station that will be constructed, owned, operated, and maintained by Columbia Gas of Virginia ("CGV"). Specifically, there is an existing natural gas pipeline located south of the Bremo Power Station across the James River, adjacent to the Company's Bear Garden Generating Station ("Bear Garden"). The Company has executed construction and supply agreements with CGV to install approximately 1.5 miles of new lateral pipeline to support Bremo Units 3 and 4 post-conversion. CGV has an interconnect with Transcontinental Gas Pipe Line Company ("Transco"), which will provide Bremo access to a long-haul natural gas interstate pipeline corridor that stretches from Texas to New York.

### H. Transmission

18. The Bremo Power Station is already connected into the transmission system through existing transmission interconnection equipment and no additional transmission interconnection projects or network upgrades will be required as a result of the Bremo Conversion. Alternatively, if the Bremo Power Station was removed from service, transmission system upgrades would need to be constructed.

# I. Operation and Construction

19. A competitive bid process to secure EPC contractor services has resulted in a fixed-price contract for the majority of the work. The scope of the Bremo Conversion will include boiler modifications required for gas-fired generation, new environmental equipment,

new fuel handling facilities for natural gas, and additional major unit modifications to several other balance of plant systems.

20. Besides its experience in successfully operating numerous natural gas facilities, Dominion Virginia Power has an excellent record of designing, developing, constructing, and operating generation projects in a safe and reliable manner, and at reasonable cost. For example, the Company has previously converted units at the Possum Point Power Station from coal to natural gas. More recent examples of generation project accomplishments include the Company's Ladysmith Generation Facility, Bear Garden, and VCHEC, as well as the conversions of the Altavista, Hopewell and Southampton coal-fired units to biomass, and the Warren County Power Station, which are currently under construction.

21. The Company requests Commission approval of the Bremo Conversion within approximately 12 months of this filing – or by September 16, 2013 – to support the proposed timetable for the Bremo Conversion.

### J. Virginia Energy Policies

22. The Bremo Conversion supports the Commonwealth Energy Policy stated in Va. Code § 67-102 and the Virginia Energy Plan. The related benefits include, but are not limited to: creating environmental benefits by reducing emissions of  $NO_x$ ,  $SO_2$ , PM,  $CO_2$ , and Hg when compared to operation on coal; promoting economic development; increasing the Commonwealth's energy independence and reducing reliance on market purchases (and attendant market volatility); and contributing towards ensuring an adequate energy supply and Virginia-based energy production capacity in a safe and reliable manner.

#### **III. SUPPORTING TESTIMONY**

23. The Company's request for certification and approval of the Bremo Conversion in

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this Application is supported by the attached prefiled direct testimonies of Company Witnesses Paul E. Ruppert, J. Scott Gaskill, Robert B. McKinley, and Robert M. Bisha. In addition, see <u>Exhibit 1</u> attached hereto for the information required by Rule 20 (1-4) and (6) of the Generation Rules, 20 VAC 5-302-20 (1), (2), (3), (4), and (6), which is sponsored by Company Witness Ruppert.

### IV. REQUEST FOR CONFIDENTIAL TREATMENT AND ADDITIONAL PROTECTIVE TREATMENT OF EXTRAORDINARILY SENSITIVE INFORMATION

24. The Company's Application contains, at points so designated, Confidential and Extraordinarily Sensitive information, which is being filed under seal and subject to the Company's Motion for Entry of Protective Order and Additional Protective Treatment filed coincident hereto. Because portions of the Company's Application contain such Confidential and Extraordinarily Sensitive information, in compliance with Rule 170 of the Commission's Rules of Practice and Procedure, 5 VAC 5-20-170, this filing is accompanied by a separate Motion for Entry of Protective Order and Additional Protective Treatment, including a form of Proposed Protective Order substantively similar to others previously approved by the Commission, filed contemporaneously with this Application.

# V. COMPLIANCE WITH RULE 20 OF THE GENERATION RULES

25. The Company's Application for approval of its proposed Bremo Conversion complies with the requirements contained in Rule 20 of the Generation Rules,

20 VAC 5-302-20 ("Rule 20"), which states:

In addition, an applicant proposing the construction, ownership or operation of a natural gas-fired electric generating facility shall serve a copy of its application for construction of the electric generating facility upon all natural gas local distribution companies in whose certificated service territories such electric generating facility or interconnected natural gas facilities will be constructed or operated, contemporaneously with the filing of such application.

Copies of the Public Version of this Application, to the extent required by Rule 20, have been served upon CGV, which is the only natural gas local distribution company subject to this requirement.

#### VI. SUMMARY

26. The Company's proposed Bremo Conversion will provide value and benefits to customers and the Commonwealth. With a capital investment of approximately \$53.4 million (excluding financing costs), the Bremo Conversion will preserve 227 MW of net capacity and is expected to provide customer savings of approximately \$32 million NPV when compared to building new generation; approximately \$123.2 million NPV when compared to market purchases; and approximately \$155 million NPV when compared to continued operations on coal. Besides preserving and maintaining needed capacity, the Bremo Conversion will extend the life of an existing asset; reduce emissions of NO<sub>x</sub>, SO<sub>2</sub>, PM, CO<sub>2</sub>, and Hg; will support economic development and jobs in the Commonwealth; and will contribute to meeting the Commonwealth's Energy Policy and Virginia Energy Plan. For these reasons, the Company respectfully requests that the Commission approve its Application and grant an amended and reissued CPCN for the Bremo Conversion as requested in this proceeding.

27. The Company's Application and DEQ Supplement, testimonies, and exhibits demonstrate that the Company has the technical and financial fitness to complete the proposed major unit modifications to the Bremo Power Station, and this Bremo Conversion fully satisfies the requirements of Va. Code §§ 56-580 D and 56-46.1. The Bremo Conversion will have no material adverse impact upon the reliability of electric service provided by any regulated public utility, is required by the public convenience and necessity, and is not otherwise contrary to the public interest. In fact, these major unit modifications will help to assure continued system

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reliability in a prudent and cost-effective manner.

WHEREFORE, Dominion Virginia Power respectfully requests that the Commission: (1) direct that notice of the Application be given as required by Va. Code § 56-46.1; (2) amend and reissue a certificate of public convenience and necessity for the Company's existing Bremo Power Station, and approve the construction and operation of the proposed Bremo Conversion under Va. Code §§ 56-580 D and 56-46.1, as requested herein, in order for construction to begin by no later than September 16, 2013; and (3) grant such other and further relief as the Commission deems just and proper.

Respectfully submitted,

VIRGINIA ELECTRIC AND POWER COMPANY

August 31, 2012

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Counsel for Virginia Electric and Power Company

# BEFORE THE STATE CORPORATION COMMISSION OF VIRGINIA

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

**Bremo Power Station** 

# **DEQ Supplement**

Case No. PUE-2012-00101

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Pursuant to Rule 20 of the Filing Requirements in Support of Applications for Authority to Construct and Operate an Electric Generating Facility codified in the Virginia Administrative Code ("VAC"), 20 VAC 5-302-20, Virginia Electric and Power Company ("Dominion Virginia Power" or the "Company") has developed this Virginia Department of Environmental Quality ("DEQ") Supplement for submission to the State Corporation Commission of Virginia (the "Commission") to facilitate environmental agency review and analysis of the Company's proposed conversion of an existing Commission-approved 227 megawatt ("MW") (net) rated coal-fired electric generating facility to burn natural gas and continue to generate 227 MW (net).

The existing Bremo Power Station is located in the community of Bremo Bluff, east of State Route 15 at 1038 Bremo Road in Fluvanna County, Virginia. Bremo Units 3 and 4 began commercial operations in 1950 and 1958, respectively. The facility is currently a coal-fired electric generating facility. The Company is proposing to convert the power station to use natural gas for fuel, which will significantly reduce the emissions of air and water pollutants from the facility.

# 1. **Project Description**

The Company is proposing to modify the existing coal-fired Bremo Power Station's Units 3 and 4 currently owned and operated by the Company by eliminating coal as a fuel and converting the boilers to operate with natural gas (the "Bremo Conversion"). Subject to receiving all necessary regulatory approvals and permits, construction of the proposed Bremo Conversion is anticipated to commence in the fall of 2013, with commercial operation commencing in 2014. This site is well-suited for conversion to natural gas fuel based on studies completed by the Company, the minimal environmental impacts expected, and the ease in obtaining the natural gas supply.

Impacts to environmental, natural resources, historic resources and scenic assets from the Bremo Conversion will not occur or will be reasonably minimized.

Site Location Maps (topographical and aerial) indicating the location of the proposed Bremo Conversion are included as <u>Attachment A.1</u> and <u>Attachment A.2</u>.

## 2. Environmental Analysis

# A. Air Quality (20 VAC 5-302-20(12)(a))

As part of this conversion from coal to natural gas, the Company applied on June 15, 2012 for a Minor New Source Review ("NSR") permit from the DEQ that will allow the conversion. The Minor NSR program requires air quality review of new sources or modifications of existing sources that do not trigger Major NSR.

For NSR purposes, a steam electric facility consisting of one or more fossil fuel boilers totaling more than 250 MMBtu/hr is considered a NSR "major source" if emissions of any criteria pollutant are greater than 100 tons/year. The existing facility has potential emissions greater than 100 tons/year for one or more of the attainment pollutants. Therefore, the Bremo facility is a "major" NSR source. This means that the determination of whether the Bremo Conversion constitutes a NSR "major modification" is made on a pollutant-by-pollutant basis. For each pollutant for which the "net emission increase" is greater than the NSR major modification threshold for that pollutant, NSR review is required.

The determination of net emissions increase for a modified boiler project is made by examining the "net change" in emissions for the units being modified. For steam electric facilities like Bremo, the net change in emissions is determined by the difference between existing baseline and projected future actual emissions. As a steam electric facility, the actual "baseline" emissions for NSR purposes are determined based on actual emissions in any twenty-four consecutive months in the previous five years.

The emission units being modified that are examined in this evaluation are the two main boilers being converted to natural gas, one auxiliary boiler, and one pipeline heater. The existing emission units that are not being modified, such as the several diesel engines, are not included in this netting analysis.

The only criteria pollutant which is subject to Major NSR review is carbon monoxide ("CO"). All of the other criteria pollutants – nitrogen oxides ("NO<sub>x</sub>"), sulfur dioxide ("SO<sub>2</sub>"), and particulate matter ("PM<sub>10</sub>/PM<sub>2.5</sub>") – with the exception of volatile organic compounds ("VOCs") are unchanged or have a net decrease and are therefore not subject to Prevention of Significant Deterioration ("PSD") review. The increase in VOC emissions from the Bremo Conversion is below the PSD significance threshold of 40 tons/year. However, a CO emission limit will be taken through the Minor NSR process, which will keep this project from exceeding the NSR significance level of 100 tons/year; therefore, the Bremo Conversion is not subject to Major NSR review for any pollutant. A CO catalyst may be installed on Unit 4 as part of this conversion, if required by the air permit that will be issued by DEQ. The catalyst would control CO emissions and provide the station with added operational flexibility within the Minor NSR permitting process. The CO catalyst is not a requirement of Best Available Control Technology ("BACT") per PSD.

Existing air pollution controls include Electrostatic Precipitators ("ESP") to remove  $PM_{10}$  and mercury ("Hg") emissions. After passing through the control equipment, the exhaust gases from the boilers will be ducted to the existing 200-foot stacks. After the conversion to natural gas, the ESP will not be operated because the amount of particulates from natural gas combustion is small.

In accordance with 40 C.F.R. Part 63.7490, the existing coal-fired boilers are not being "reconstructed"; therefore, they are "existing" and not "new" units. The units would be subject to emission limits for PM, hydrogen chloride ("HCl"), Hg, CO, and dioxins/furans (total expressed as 2,3,7,8-TCDD toxic equivalents, or "TEQ").

# B. Water Source (20 VAC 5-302-20(12)(b))

Water for the once-through condensers, boiler makeup and fire protection is, and will continue to be, obtained from the James River, while water for potable uses is, and will continue to be, supplied from a well on the station property.

No on-site water wells are used for the power generation process.

# C. Discharge of Water (20 VAC 5-302-20(12)(c))

Process service water, boiler blowdown, ash sluice water, coal pile runoff, and sanitary wastewater currently comprise the liquid waste stream from the facility. After the conversion, the contribution from coal pile runoff and ash sluicing will be eliminated. Industrial wastewater, sanitary wastewater, and stormwater are permitted to be discharged to the James River under Virginia Pollutant Discharge Elimination System ("VPDES") Permit No. VA0004138 issued by DEQ.

Stormwater discharges during the construction of the Bremo Conversion will be addressed through the implementation of both an Erosion and Sediment ("E&S")

# D. Tidal and Nontidal Wetlands (20 VAC 5-302-20(12)(d))

Based upon wetland and stream delineations, the Company expects no impacts to wetlands and waters of the United States from construction and operation of the Bremo Conversion. A U.S. Army Corps of Engineers Permit and a Virginia Water Protection ("VWP") permit will be obtained prior to any impacts. Jurisdictional wetlands and other waters of the United States will be avoided to the greatest extent possible.

Prior to beginning land disturbing activities, the Company will prepare and implement an E&S Control Plan approved by Fluvanna County and a SWPPP written in accordance with DCR regulations to minimize impacts to adjacent wetlands and surface waters if required.

# E. Solid and Hazardous Waste (20 VAC 5-302-20(12)(e))

Any solid and/or hazardous wastes generated by the Bremo Conversion will be minimized and reduced at the source, and re-used or recycled to the extent possible. Construction equipment will be operated and maintained to prevent any fuel or oil spills in accordance with the SWPPP and the Spill Prevention, Control, and Countermeasures ("SPCC") Plan. Any waste created by the construction crews will be disposed of in an environmentally responsible manner and recycled where appropriate. In the unlikely event that subsurface waste, hazardous waste, or abandoned petroleum tanks are encountered during excavation, the DEQ Regional Office and the Department of Emergency Services will be contacted immediately.

Coal combustion byproducts that are produced when operating the Bremo Power Station are disposed of into on-site ash disposal ponds. With the conversion to natural gas fuel, the need for coal ash disposal will be eliminated. The coal ash ponds will be maintained and/or closed in accordance with applicable regulations.

Any hazardous waste produced as part of plant operations will be handled in accordance with applicable environmental regulations. Accordingly, no impact to local water resources is expected.

# F. Natural Heritage, Threatened and Endangered Species (20 VAC 5-302-20(12)(f))

The Company does not anticipate impacts to natural heritage resources (*i.e.*, threatened or endangered animal and plant species; wildlife; and agricultural, recreational, forest, and mineral resources) as all work associated with the conversion will take place on station property on previously disturbed land. The Company submitted written requests

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on June 29, 2012 to the DCR Division of Natural Heritage and the Virginia Department of Game and Inland Fisheries ("DGIF") for a review of natural heritage resources that may impact or be impacted by the Bremo Conversion. On July 16, 2012, DGIF responded that the agency supports the conversion. This correspondence is included as <u>Attachment B</u>. On July 18, 2012, the DCR Division of Natural Heritage responded in support of the proposed conversion. This correspondence is included as <u>Attachment C</u>.

# G. Erosion and Sediment Control (20 VAC 5-302-20(12)(g))

Prior to beginning land disturbing activities, the Company will submit a construction stormwater general permit registration statement to the DCR for review and approval if required. An E&S permit application and control plan will also be submitted to Fluvanna County. The E&S Control Plan and SWPPP will be prepared in accordance with state and local regulations. These specifications will be provided to the Company's contractors for compliance and will be in place prior to the start of construction.

Stormwater within the operating boundary of the Bremo Conversion will be diverted with grading and subsurface piping or sheet flow into on-site stormwater basins. Best Management Practices ("BMPs") will also be utilized during construction activities. Temporary local controls and construction BMPs will be utilized in this area until vegetation has been reestablished to the satisfaction of the regulatory authority.

# H. Archaeological, Historic, Scenic, Cultural or Architectural Resources (20 VAC 5-302-20(12)(h))

As all construction work will occur at the station site on previously disturbed land, archaeological, historic, scenic, cultural, or architectural resources are not expected to be impacted by construction or post-conversion operation of the Bremo Power Station. The Company submitted a written request on June 29, 2012 to the Virginia Department of Historic Resources ("DHR") for a review of historic resources that may impact or be impacted by the Bremo Conversion. On July 19, 2012, DHR responded that in the department's opinion, the conversion will likely have no negative impact on the historic nature of the Bremo facility. This correspondence is included as <u>Attachment D</u>.

In the unlikely event that archeological resources are encountered during construction while excavating for foundations and footings, the DHR will be contacted immediately.

# I. Chesapeake Bay Preservation Areas (20 VAC 5-302-20(12)(i))

Chesapeake Bay Preservation Areas are not located in Fluvanna County and, therefore, are not applicable to the Bremo Conversion.

# J. Wildlife Resources (20 VAC 5-302-20(12)(j))

The Bremo Power Station is fenced to prevent access by wildlife. The Company does not anticipate impacts to wildlife resources associated with the Bremo Conversion.

# K. Recreation, Agricultural and Forest Resources (20 VAC 5-302-20(12)(k))

All construction will take place within the station boundaries on previously disturbed land and no impacts are expected to recreational, agricultural, or forest resources of the state. The Company submitted a written request to the DCR for a review of recreational resources that may impact or be impacted by the Bremo Conversion on June 29, 2012. On July 13, 2012, the DCR responded that it does not anticipate negative impacts to James River recreational resources. This correspondence is included as <u>Attachment E</u>.

# L. Use of Pesticides and Herbicides (20 VAC 5-302-20(12)(l))

The Company typically utilizes selective, low-volume applications of EPA-approved, non-restricted use herbicides for landscape maintenance, including use on transmission right-of-ways. "Selective" application means that the Company sprays only the undesirable plant species (as opposed to doing broadcast applications). "Low volume" application means the Company uses only the volume of herbicide necessary to remove the selected plant species as recommended by the manufacturer. These herbicides are manually applied by certified Applicators. The least toxic pesticides are applied to targeted species in accordance with the principles of integrated pest management. Only herbicides approved for aquatic use by the EPA and the U.S. Fish and Wildlife Service ("USFWS") will be used in or around any surface water.

# M. Geology and Mineral Resources (20 VAC 5-302-20(12)(m))

The Company submitted a written request on June 29, 2012 to the Virginia Department of Mines, Minerals and Energy ("DMME") for a file review to identify locations of known mineral resources and all existing or planned mineral extraction projects within the immediate vicinity of the Bremo Power station. On July 18, 2012, DMME responded that the agency believes that the project will have no impact on the future development of mineral resources in the area. This correspondence is included as Attachment F.

Geologically, the Bremo Power Station site is covered with clay, silt, and sand alluvium and residual soils underlain by saprolietic deposits weathered from schist and Granodiorite Gneiss. No geology of concern exists on the site and no commercial mineral deposits are known to exist on the site.

# N. Transportation Infrastructure (20 VAC 5-302-20(12)(n))

The only expected effects to state roads will be a temporary increase in traffic during construction. The Company requested comments on June 29, 2012 from the Virginia Department of Transportation ("VDOT") regarding the Bremo Conversion. This correspondence is included as <u>Attachment G</u>.

# **O.** Local Coordination

The station has been in operation since 1931 and is considered an existing nonconforming use under Fluvanna County's zoning regulations. The conversion of the OFFICIAL COPY

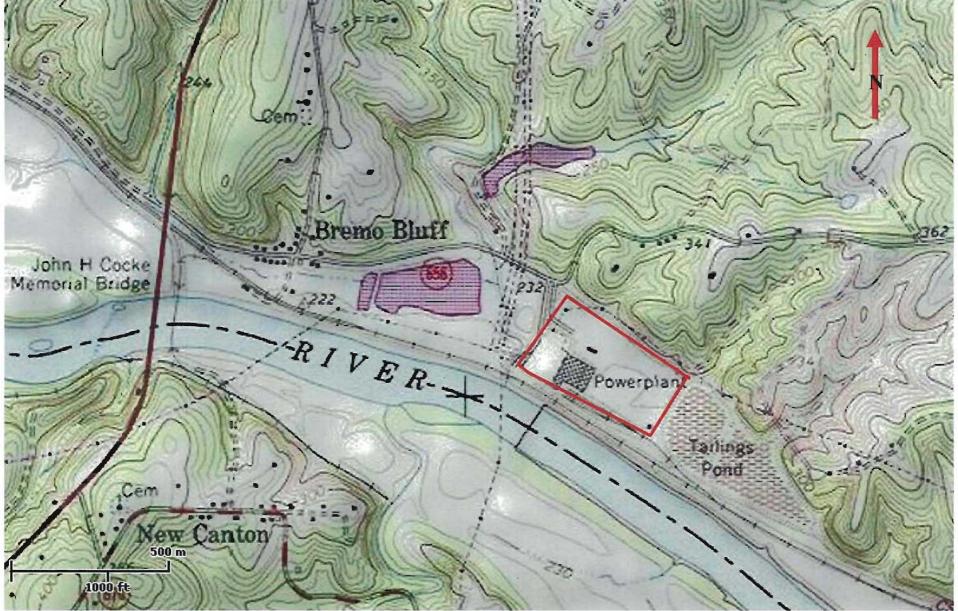
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station from coal to natural gas fuel will not require rezoning or a conditional use permit, but will require site plan approval from Fluvanna County which will be obtained prior to the start of construction.

# 3. Attachments

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Location of Proposed Bremo Power Station natural gas conversion Dominion Virginia Power Fluvanna County, Virginia Post-Hearing Exhibit 4a

Oct 23 2019

Dominion Energy/North Carolina Docket No. E-22, Sub 562



Location of Proposed Bremo Power Station natural gas conversion Fluvanna County, Virginia **OFFICIAL COPY** 

Oct 23 2019

# Corwin D Chamberlain (Services - 6)

From:	ProjectReview (DGIF) [ProjectReview@dgif.virginia.gov]
Sent:	Monday, July 16, 2012 4:20 PM
To:	ProjectReview (DGIF); Corwin D Chamberlain (Services - 6)
Cc:	nhreview (DGIF); Corwin D Chamberlain (Services - 6)
Subject:	RE: ESSLog 24495; Proposed conversion from coal to natural gas of the Dominion Bremo Power Station in Fluvanna County, Virginia

We have reviewed the above-referenced Dominion project consisting of converting the feed-stock (fuel source) from coal to natural gas at its existing Bremo Power Station in Fluvanna County, Virginia. According to Dominion, conversion from coal to natural gas will eliminate the coal pile, production of coal ash, and reduce associated industrial waste waters. Instream work, modification to existing water intake and discharge are not mentioned in this request for comment.

We support the proposed conversion of fuel source from coal to natural gas, provided Power Station operations continue to comply with the conditions established by existing permits. Should changes to the characteristics of intake, discharge or other plant operations become necessary we anticipate updated permit applications will be distributed for review. In this case, we will review any new permit application and provide updated recommendations as appropriate.

Thank you for the opportunity to review this proposal and provide recommendations. Please call me if you have any questions.

Ernie Aschenbach Environmental Services Biologist Virginia Dept. of Game and Inland Fisheries P.O. Box 11104 4010 West Broad Street Richmond, VA 23230 Phone: (804) 367-2733 FAX: (804) 367-2427 Email: Ernie.Aschenbach@dgif.virginia.gov

Post-Hearing Exhibit 4a Page 25 of 52

Attachment C



Douglas W. Domenech Secretary of Natural Resources David A. Johnson Director

# COMMONWEALTH of VIRGINIA

#### DEPARTMENT OF CONSERVATION AND RECREATION

Division of Natural Heritage 217 Governor Street Richmond, Virginia 23219-2010 (804) 786-7951

July 18, 2012

Corey Chamberlain Dominion Virginia Power 5000 Dominion Boulevard Glen Allen, VA 23060

Re: Conversion of Bremo Power Station From Coal to Natural Gas

Dear Mr. Chamberlain:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, the James River – Bremo Stream Conservation Unit (SCU) is located adjacent to the project site. SCUs identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. SCUs are also given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain. The James River – Bremo SCU has been given a biodiversity ranking of B4, which represents a site of moderate significance. Natural heritage resources associated with this site are:

Fusconaia masoni	Atlantic pigtoe	G2/S2/SOC/LT
Lasmigona subviridis	Green floater	G3/S2/NL/LT

The Atlantic pigtoe is a medium-sized freshwater mussel which ranges from the Ogeeshee drainage in Georgia north to Virginia (NatureServe, 2009). In Virginia, this species is known from the James, Chowan and Roanoke River basins (NatureServe, 2009). The Atlantic pigtoe prefers clear, swift waters with gravel or sand and gravel substrates. Many populations from the main stem of larger rivers have disappeared and the species is becoming limited to the headwater areas of drainages in which it occurs. This could have implications for populations being able to reestablish after a localized, catastrophic event and for genetic exchange.

Threats to the Atlantic pigtoe include pollution, impoundments, clearcutting, and dredging (Gerberich, 1991). This species does not appear to be able to tolerate habitat changes and it appears to be very poor at recolonizing previously disturbed habitats (NatureServe, 2009). A recent study determined that the glochidia of the Atlantic pigtoe are extremely sensitive to pollution (Augspurger et al., 2003). Please

State Parks • Stormwater Management • Outdoor Recreation Planning Natural Heritage • Dam Safety and Floodplain Management • Land Conservation Oct 23 2019

note that this species is currently listed as threatened by the Virginia Department of Game and Inland Fisheries (VDGIF) and is also tracked as a species of concern by the United States Fish and Wildlife Service (USFWS); however, this designation has no official legal status.

The Green floater, a rare freshwater mussel, ranges from New York to North Carolina in the Atlantic Slope drainages, as well as the New and Kanawha River systems in Virginia and West Virginia (NatureServe, 2009). In Virginia, there are records from the New, Roanoke, Chowan, James, York, Rappahannock, and Potomac River drainages. Throughout its range, the Green floater appears to prefer the pools and eddies with gravel and sand bottoms of smaller rivers and creeks, smaller channels of large rivers (Ortman, 1919) or small to medium-sized streams (Riddick, 1973). Please note that this species has been listed as state threatened by the VDGIF.

In addition, the Virginia pigtoe (*Lexingtonia subplana*, G1Q/SH/NL/NL) has been historically documented adjacent to the project site. The Virginia pigtoe is a state historic freshwater mussel. There are questions surrounding the Virginia pigtoe's taxonomic status, and its original description as a species may be based on partially-gravid Atlantic pigtoe (*Fusconaia masoni*). If it is a valid species, it is endemic to the James River drainage of Virginia (NatureServe, 2009).

Considered good indicators of the health of aquatic ecosystems, freshwater mussels are dependent on good water quality, good physical habitat conditions, and an environment that will support populations of host fish species (Williams et al., 1993). Because mussels are sedentary organisms, they are sensitive to water quality degradation related to increased sedimentation and pollution. They are also sensitive to habitat destruction through dam construction, channelization, and dredging, and the invasion of exotic mollusk species.

The James River 2 has also been designated by the VDGIF as a "Threatened and Endangered Species Water". The species associated with this T & E Water is the Brook floater (*Alasmidonta varicosa*, G3/S1/NL/LE) and Atlantic pigtoe.

According to the information provided by Dominion, the conversion from coal to natural gas as a fuel source at the Bremo Power Station will eliminate the existing coal pile and coal ash production, reduce associated industrial waste water and require no new land disturbance. It was also stated the water withdrawal amount will remain the same and water pollutant levels will be reduced once the change is made to natural gas. Therefore, based on the provided information and continued compliance with existing permits, DCR supports the proposed fuel source conversion.

To minimize adverse impacts to the aquatic ecosystem as a result of the proposed activities, DCR recommends the implementation of and strict adherence to applicable state and local erosion and sediment control/storm water management laws and regulations. Due to the legal status of the Atlantic pigtoe, Green floater, and Brook floater, DCR also recommends coordination with Virginia's regulatory authority for the management and protection of these species, the VDGIF, to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized and/or the scope of the project changes.

A fee of \$125.00 has been assessed for the service of providing this information. Please find enclosed an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, Department of Conservation and Recreation, 217 Governor Street, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The VDGIF maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <u>http://vafwis.org/fwis/</u> or contact Gladys Cason (804-367-0909 or <u>Gladys.Cason@dgif.virginia.gov</u>).

Should you have any questions or concerns, feel free to contact me at 804-371-2708. Thank you for the opportunity to comment on this project.

Sincerely,

Rem' Hy

S. René Hypes Project Review Coordinator

CC: Ernie Aschenbach, VDGIF Kim Smith, USFWS

#### Literature Cited

Augspurger, T., A.E. Keller, M.C. Black, W.G. Cope, and F.J. Dwyer. 2003. Water quality guidance for protection of freshwater mussels (Unionidae) from ammonia exposure. Environmental Toxicology and Chemistry, 22: 2569-2575.

Gerberich, Andy. 1991. Atlantic pigtoe. In Virginia's Endangered Species: Proceedings of a Symposium. K. Terwilliger ed. The McDonald and Woodward Publishing Company, Blacksburg, Virginia.

NatureServe. 2009. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer. (Accessed: April 27, 2010).

Ortman, A.E. 1919. A monograph of the naiades of Pennsylvania, Part 3: Systematic account of the genera and species. Mem. Carnegie Mus. 8:1-384.

Riddick, M.B. 1973. Freshwater mussels of the Pamunkey River system, Virginia. M.S. Thesis, Virginia Commonwealth University, Richmond, VA 105pp.

Williams, J.D., M.L. Warren, Jr., K.S. Cummings, J.L. Harris, and R.J. Neves. 1993. Conservation status of freshwater mussels of the United States and Canada. Fisheries 18: 6-9.

#### **Accounts Payable**

#### **COMMONWEALTH OF VIRGINIA**

Department of Conservation and Recreation 217 Governor Street Richmond, VA 23219

Fed I.D. # 54-6004497 DUNS # 809-74-4444

#### INVOICE

Corey Chamberlain Dominion Virginia Power 5000 Dominion Boulevard Glen Allen, VA 23060 Make checks payable to the **TREASURER OF VIRGINIA** and mail to the address shown

Payment is due 30 days after receipt of invoice.

Invoice: H-9850

Date: July 18, 2012

Please detach and return remittance copy with payment to ensure proper credit to your account.

Taxpayer I.D.#

54-0418825

Contact:	René Hypes Division of Natural Heritage FAX# (804) 371-2674		- TDD (804) 786-2121	
DESCRIPTION	QUANTITY	Unit	UNIT PRICE	TOTAL AMOUNT
Impact Review	1	EA	90.00	90.00
Element Occurrences	1-5	AT	35.00	35.00
Site Reference				
Conversion of Bremo Power Statio	n			
From Coal to Natural Gas				

#### Credit Information: 199 0200 13 50317 02600 73201 304

Amount Due: \$125.00

The Department of Conservation and Recreation may charge interest on all past due accounts receivable in accordance with guidelines promulgated by the Department of accounts and at the underpayment rate prescribed in Section 58.1-15 of the Code of Virginia. Each past due account receivable may also be charged an additional amount which shall approximate the administrative cost incurred in collecting the past due amount. The Department may also assess late payment penalty fees as appropriate.

1 – Recipient Copy

2 – Remittance Copy

3 – Accounting Copy

Oct 23 2019

Dominion Energy North Carolina Docket No. E-22, Sub 562 Post-Hearing Exhibit 4a A Page 30 of 52 Attachment D

ct 23 2019

COMMONWEALTH of VIRGINIA

Douglas W. Domenech Secretary of Natural Resources **Department of Historic Resources** 

2801 Kensington Avenue, Richmond, Virginia 23221

Kathleen S. Kilpatrick Director

Tel: (804) 367-2323 Fax: (804) 367-2391 TDD: (804) 367-2386 www.dhr.virginia.gov

July 19, 2012

Mr. Corwin D. Chamberlain Dominion Resource Services, Inc. 5000 Dominion Blvd. Glen Allen, VA 23060

RE: Bremo Power Station Conversion Fluvanna County, VA DHR File No. 2012-1086

Dear Mr. Chamberlain:

We have received for review information regarding the above referenced project. The project, as proposed, is the conversion of the existing Bremo Power Station from coal to natural gas. Our comments are requested as assistance in the preparation of an application to the State Corporation Commission. We reserve the right to provide additional comment, as necessary, pursuant to Section 106 of the National Historic Preservation Act, if applicable.

Our records indicate that the Bremo Power Station (DHR ID #032-0174) has been determined potentially eligible for listing in the Virginia Landmarks Register and National Register of Historic Places for its role in early 20<sup>th</sup> century electricity production. In general, it is our opinion that the proposed conversion would likely have no negative impact on the historic facility; however, the installation of any new natural gas supply lines has the potential to impact archaeological resources and should be coordinated with our office. Dominion should also consider any potential impacts to surrounding resources if there is an increase in the overall height of the facility.

Thank you for considering historic resources in the planning of this project and the opportunity to comment on this important effort. If you have any questions concerning the above comments, please do not hesitate to contact me at <u>roger.kirchen@dhr.virginia.gov</u>.

Sincerely,

Roger W. Kirchen, Archaeologist Office of Review and Compliance

Administrative Services 10 Courthouse Ave. Petersburg, VA 23803 Tel: (804) 862-6416 Fax: (804) 862-6196 Capital Region Office 2801 Kensington Ave. Richmond, VA 23221 Tel: (804) 367-2323 Fax: (804) 367-2391 Tidewater Region Office 14415 Old Courthouse Way 2<sup>nd</sup> Floor Newport News, VA 23608 Tel: (757) 886-2807 Fax: (757) 886-2808 Western Region Office 962 Kime Lane Salem, VA 24153 Tel: (540) 387-5428 Fax: (540) 387-5446 Northern Region Office 5357 Main Street P.O. Box 519 Stephens City, VA 22655 Tel: (540) 868-7029 Fax: (540) 868-7033 Dominion Energy North Carolina Docket No. E-22, Sub 562

## Corwin D Chamberlain (Services - 6)

From: Sent: To: Subject: Rhur, Robbie (DCR) [Robbie.Rhur@dcr.virginia.gov] Friday, July 13, 2012 9:47 AM Corwin D Chamberlain (Services - 6) Bremo station

#### Hi Corey:

My office received a request to review and comment upon the conversion of your Bremo station from coal to natural gas. The station is located upon the James River, an established water trail and a potential scenic river. However given the nature of the conversion and the anticipated reduction of impacts to the natural resources in the immediate area, we do not anticipate negative impacts to the James River's recreational activities; therefore, we have no comment.

**Best Regards** 

Robbie Rhur Environmental Review Coordinator 804-371-2594

Robbie Rhur Environmental Review Coordinator 804-371-2594

Post-Heattagehment F Page 32 of 52

DIVISIONS ENERGY GAS AND OIL MINED LAND RECLAMATION MINERAL MINING GEOLOGY AND MINERAL RESOURCES MINES ADMINISTRATION

# **COMMONWEALTH OF VIRGINIA**

Department of Mines, Minerals and Energy Division of Geology and Mineral Resources Fontaine Research Park 900 Natural Resources Drive, Suite 500 Charlottesville, Virginia 22903 (434) 951-6341 www.dmme.virginia.gov

July 18, 2012

Mr. Robert M. Bisha Director, Environmental Business Support Dominion Resources Services, Inc. 5000 Dominion Boulevard Glen Allen, VA 23060

RE: Proposed conversion from coal to natural gas of Bremo Power Station

Dear Mr. Bisha,

In your letter of June 27, 2012, you asked that the Department of Mines, Minerals and Energy (DMME) identify the locations of known mineral resources and existing or planned mineral extraction projects in the vicinity of the proposed project. I have reviewed our records and find that there are several historical copper mines located on the south side of the James River within a half mile of the Bremo Power Station. These mines were abandoned over a century ago; the copper deposits are not likely to be considered economically prospective for the foreseeable future. DMME knows of no existing or planned mineral extraction projects in the immediate vicinity of the proposed conversion project. Therefore, I have determined that the proposed project will have no impact on the future development of mineral resources in the area.

Sincerely,

David B. Spears State Geologist

EQUAL OPPORTUNITY EMPLOYER TDD (800) 828-1120 --- Virginia Relay Center

## Corwin D Chamberlain (Services - 6)

From:	Mackenzie, Mauris S., PE (VDOT) [Mauris.Mackenzie@VDOT.virginia.gov]
Sent:	Monday, July 30, 2012 5:32 PM
To:	Corwin D Chamberlain (Services - 6)
Subject:	RE: Bremo Power Station Conversion

The only project I am aware of in this vicinity is the replacement of two bridges on Bremo Road west of this location. That project is scheduled to be advertised for construction in March 2014.

Please advise if you need additional information.

Mauris S. Mackenzie, P.E. Area Construction Engineer VDOT Culpeper District mauris.mackenzie@vdot.virginia.gov O: (434) 422-9793 C: (434) 221-4649 F: (434) 293-1150

From: Corwin D Chamberlain [mailto:corwin.d.chamberlain@dom.com] Sent: Monday, July 30, 2012 4:35 PM To: Mackenzie, Mauris S., PE (VDOT) Subject: Bremo Power Station Conversion

Mr. Mackenzie,

I am writing to inquire about the status of Dominion's letter of June 27<sup>th</sup> requesting a review of the projects impacts on proposed transportation projects and the locations of existing or planned transportation projects in the vicinity of the project which is located at 1038 Bremo Rd. in Fluvanna County at latitude 37.709N and longitude -78.2868W.

Thank you for your time.

Corey

Corwin Chamberlain Environmental Services - Business Support 5000 Dominion Boulevard Glen Allen, Virginia 23060 Innsbrook Technical Center, 2-NW Office: 804-273-2948 Mobile: 804-837-5587 Email: corwin.d.chamberlain@dom.com

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#### 2013 WL 10904843 (VSCCHEXR)

#### Commonwealth of Virginia

State Corporation Commission Hearing Examiner Report

APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY For approval of conversion and operation of Bremo Power Station

### Case No. PUE-2012-00101

### **REPORT OF HOWARD P. ANDERSON, JR., HEARING EXAMINER**

#### May 8, 2013

\*1 On August 31, 2012, Virginia Electric and Power Company d/b/a Dominion Virginia Power ("Dominion Virginia Power" or "Company") filed with the State Corporation Commission ("Commission") the Application of Virginia Electric and Power Company for approval and certification of the proposed conversion of Bremo Power Station under §§ 56-580 D and 56-46.1 of the Code of Virginia ("Application"). Dominion Virginia Power's existing Bremo Power Station ("Bremo") in Fluvanna County currently uses coal to fuel its boilers. Pursuant to § 56-580 D of the Code of Virginia ("Code"), the Company now applies for permission to convert and operate Bremo with natural gas as the exclusive fuel. Coincident with its Application, the Company filed a Motion for Entry of a Protective Order and Additional Protective Treatment ("Motion") requesting procedures applicable to the use of confidential or proprietary information, as well as extraordinarily sensitive information, in this proceeding.

On October 5, 2012, the Commission issued an Order for Notice ("Order") in which, among other things, it established a procedural schedule and appointed a Hearing Examiner to conduct further proceedings in this matter on behalf of the Commission. The Commission further directed that, on or before November 28, 2012, any interested person desiring a hearing on the Application should file such request with the Clerk of the Commission.

On October 12, 2012, the Company's Motion was granted and a Hearing Examiner's Protective Ruling and Additional Protective Treatment for Extraordinarily Sensitive Information was issued.

On November 28, 2012, Columbia Gas of Virginia, Inc. ("CGV") filed a Notice of Participation and Statement in Support of Application. On November 29, 2012, Doswell Limited Partnership ("Doswell") filed a Notice of Participation. Neither respondent submitted testimony or a request for a hearing.

As of November 28, 2012, no interested person or party filed a request for a hearing.

### SUMMARY

Bremo, located on the James River in Fluvanna County, has been in operation since 1931 and currently has two active coalfired generating units, Unit 3 and Unit 4. Unit 3 has a net capacity of 71 MW and Unit 4 has a net capacity of 156 MW, making Bremo among the smallest coal-fired plants in the Company's generating fleet. Although these units no longer operate as baseload units, they provide needed capacity. However, as shown below, the associated capacity factors for each unit have been declining over the years.

#### **Historical Capacity Factors**

Unit	2008h	<b>h2009</b> h	<b>h2010</b> h	h2011

Unit 3	50.8(3)(3)(3)(3)(3)(3)(3)#28.1%	37.1%	18.2%
Unit 4	64.3( 3)( 3)( 3)( 3)( 3)( 3)( 3)#54.6%	55.1%	51.6%

\*2 Due to environmental factors, the Company has determined that if the units remain as coal- fired units, the capacity factors would continue to decline and the units would eventually have to be retired. In addition, the Company stated that the air pollution control permit and related requirements for operation of its Virginia City Hybrid Energy Center, which began commercial operation on July 10, 2012, require either the conversion of Bremo to natural gas, or the retirement of the units by March 7, 2014.

In support of the Application, the Company stated the Bremo conversion will:

· Extend the life of this facility and site to continue serving customer needs;

· Preserve 227 MW (net) of existing needed capacity at a low cost of \$53.4 million (excluding financing costs);

• Provide economic benefits to customers. Specifically, the Bremo conversion is expected to provide customer savings of: 1. Approximately \$32 million net present value ("NPV") when compared to building new generation;

2. Approximately \$123.2 million NPV when compared to market purchases; and

3. Approximately \$155 million NPV when compared to continued operation with coal.

 $\cdot$  Provide significant environmental benefits for the Commonwealth and customers by, among other things:

1. Reducing emissions of nitrogen oxides, sulfur dioxide, particulate matter, carbon dioxide, and mercury;

2. Reducing environmental land disturbance by utilizing an existing facility; and

3. Eliminating coal ash production and management.

· Promote economic development by creating new construction jobs and, by continuing operations, will preserve jobs and provide other direct and indirect economic benefits;

· Support the Commonwealth's Energy Policy and Virginia Energy Plan; and

 $\cdot$  Contribute to the Company's continued efforts to provide safe and reliable power to customers in a prudent and cost-effective manner.

The Company maintains that the Bremo conversion is a prudent investment because it is the lowest cost alternative for preserving existing capacity and is consistent with the Commonwealth's Energy Policy goals. The Company states the Bremo conversion will not have an adverse impact on reliability and the \$53.4 million cost of conversion will be recovered through base rates.

### Fuel Supply

The Company stated there is an existing natural gas pipeline located south of Bremo across the James River, adjacent to the Company's Bear Garden Generating Station.

Oct 23 2019

The Company's affiliate, Virginia Power Services Energy Corp, Inc. ("VPSE") has executed construction and supply agreements with CGV to install approximately 1.5 miles of new lateral pipeline to support Bremo Units 3 and 4 post-conversion. CGV will own, operate, and maintain this lateral pipeline. CGV has an interconnect with Transcontinental Gas Pipe Line Company ("Transco") which will provide Bremo access to supply regions from the Gulf of Mexico to the constantly expanding Marcellus shale region that can supply Transco pipeline's non-New York market zone.

# DEQ

\*3 On December 5, 2012, the Virginia Department of Environmental Quality ("DEQ"), at Staff's request, filed a report pertaining to the potential environmental impacts to natural and cultural resources associated with the proposed project. In its report, DEQ outlined items requiring legal compliance and recommended relatively minor steps to minimize any impacts. DEQ noted that the proposed conversion will end the need for coal ash disposal and the on-site ash ponds will be maintained or closed by the Company. DEQ requested that it be notified if the Company decides to close the coal ash ponds or deviate from the proposed design of the project.

## Staff

On January 11, 2013, Staff filed the testimony of David R. Eichenlaub, assistant director in the Commission's Division of Energy Regulation. Mr. Eichenlaub explained that the Company evaluated the proposed project and compared its value to three different alternatives: (1) new generation, (2) market purchases, and (3) continued coal-fired operation. From these options, conversion to natural gas was found to be the most cost-effective and reasonable means to meet the Company's expected capacity and energy needs. In conclusion, Staff concurs with the Company's assessment and recommends that the Commission approve the application to convert Bremo to natural gas.

## **STATUTORY REQUIREMENT**

Section 56-580 D of the Code of Virginia requires, in pertinent part:

The Commission shall permit the construction and operation of electrical generating facilities in Virginia upon a finding that such generating facility and associated facilities (i) will have no material adverse effect upon reliability of electric service provided by any regulated public utility, (ii) are required by the public convenience and necessity, ... (iii) are not otherwise contrary to the public interest. In review of a petition for a certificate to construct and operate a generating facility described in this subsection, the Commission shall give consideration to the effect of the facility and associated facilities on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact as provided in § 56-46.1 ...

## 1. Effect on Reliability

Section 56-580 D requires a finding that the Company's proposal does not adversely affect system reliability. Quite the contrary, the Bremo conversion will allow the Company to maintain the full 227 MW (net) of peak capacity and provide peak energy at an economical cost, providing substantial value to customers. Specifically, the conversion to gas will preserve 227 MW (net) of capacity that will not need to be purchased from the market or provided with the construction of new generation.

## 2. Required by the public convenience and necessity

The Company projects that the weather-normalized peak load for the Dominion Zone ("DOM Zone") will increase 5,310 MW (1.7% average annual growth rate) over the next 15 years (2013 to 2027). In January 2012, PJM Interconnection, L.L.C. ("PJM") released its weather- normalized Load Forecast Report for the DOM Zone ("PJM 2012 Load Forecast Report"), which projected an increase in peak load of 5,211 MW (1.7% average annual growth rate) over the same period.

\*4 The Company's service territory continues to experience load growth. As noted above, theCompany's 2012 Integrated Resource Plan ("IRP") forecasts an average annual peak growth rate of 1.7%. The Company's recent IRPs describe a growing gap between its load and capacity available to serve that load. Absent the proposed conversion, the Bremo coal-fired units would be retired. Conversion of the two units from coal to natural gas would extend the facility's operating life for another thirty years.

## 3. Not Otherwise Contrary to the Public Interest

The existing Bremo Units 3 and 4 are well suited for the Company's proposed conversion. The majority of the infrastructure is already in place, including plant buildings and structures, steam turbines and electrical generators, the condensate and feedwater systems, the wastewater processing equipment, and the cooling system including the intake structures and condensers. The Bremo Station is already interconnected to the transmission system and there are no additional costs required to utilize this interconnection.

As previously noted, the Bremo Station is within close proximity to a natural gas pipeline. The Company has an agreement in place with CGV to extend a natural gas lateral pipeline approximately 1.5 miles from the Company's Bear Garden Generating Station across the James River to Bremo. CGV would design, construct, install, operate, and maintain the new lateral pipeline required by the conversion project.

## 4. Compliance with § 56-46.1 of the Code

Converting the Bremo Units from coal to natural gas provides the Company with a low-cost alternative to comply with air regulations. Moreover, Condition 30 of the Virginia City Hybrid Energy Center air permit and subsequent discussion with the DEQ effectively requires the Company to cease coal-fired operation of Bremo. The Company's plan is to cease operation of the Bremo units with coal in the fall of 2013 and, with Commission approval, conversion of the units to natural gas will be completed in time to meet peak demand in the summer of 2014.

Specifically, the conversion from coal to natural gas will reduce emissions of nitrogen oxide, sulfur dioxide, carbon dioxide, and mercury, to the net benefit of the environment. Environmentally, the project would yield a more cost-effective reduction of air emissions compared to costly modifications and equipment required with continued coal operations. Further, because the conversion will be completely contained within an existing industrial site, there is no impact on archaeological, historic, scenic, cultural, or architectural resources of the Commonwealth.

## FINDINGS AND RECOMMENDATIONS

Based on the record of this proceeding, I FIND that:

- 1. The proposed conversion enhances system reliability at a reasonable cost;
- 2. The proposed conversion is required by the public convenience and necessity;
- 3. The proposed conversion is not otherwise contrary to the public interest;
- \*5 4. The proposed conversion is in compliance with § 56-46.1 of the Code and will favorably impact the environment; and

5. The recommendations proffered by DEQ are reasonable and should be approved.

Accordingly, I **RECOMMEND** the Commission enter an order that:

1. ADOPTS the findings and recommendations contained in this Report;

2. *GRANTS* a certificate of public convenience and necessity to the Company to convert and operate the Bremo Station on natural gas; and

3. DISMISSES this case from the Commission's docket of active proceedings.

## COMMENTS

The parties are advised that pursuant to Commission Rule 5 VAC 5-20-120 C of the Commission's Rules of Practice and Procedure, any comments to this Report must be filed with the Clerk of the Commission in writing, in an original and fifteen copies, within twenty-one (21) calendar days from the date hereof. The mailing address to which any such filing must be sent is Document Control Center, P.O. Box 2118, Richmond, Virginia 23218. Any party filing such comments shall attach a certificate to the foot of such document certifying that copies have been mailed or delivered to all counsel of record and any such party not represented by counsel.

Respectfully submitted,

Howard P. Anderson, Jr. Hearing Examiner

2013 WL 10904843 (VSCCHEXR)

**End of Document** 

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## 2001 WL 37069172 (VSCCHEXR)

### Commonwealth of Virginia

State Corporation Commission Hearing Examiner Report

## APPLICATION OF VIRGINIA ELECTRIC AND POWER COMPANY

For approval of generation facilities pursuant to Virginia Code § 56-580 D or, in the alternative, for approval of expenditures pursuant to Virginia Code For authority under Chapters 3, 4, and 5 of Title 56 of the Code of Virginia to participate in lease financing arrangements for construction of generation facilities, and for a declaration of non-jurisdiction

## Case Nos. PUE000343, PUF000021

## **REPORT OF DEBORAH V. ELLENBERG, CHIEF HEARING EXAMINER**

#### February 2, 2001

\*1 On June 16, 2000, Virginia Electric and Power Company ("Virginia Power" or ""the Company") filed an application with the Commission in which it proposes to reconfigure the generation units at the Possum Point Power Station by taking two existing oil-fired units (Units 1 and 2) out of service, converting two existing coal-fired units (Units 3 and 4) to natural gas, and constructing a new combined cycle generating unit ("the Project"). The Project is proposed to be operational in May 2003,

and will increase Company-owned generating capacity by approximately 397 megawatts ("MW"). <sup>1</sup> The new generating unit is expected to cost an estimated \$280 to \$300 million. Specifically, the Company requests: (1) approval under § 56-580 D of the Code of Virginia; and (2) a determination that § 56-234.3 does not require approval of the agreements necessary for the proposed synthetic lease financing, or in the alternative, that the Commission grant an exemption from § 56-234.3. The application also seeks a certificate of public convenience and necessity pursuant to Virginia Code § 56-265.2 should the Commission determine that that section is applicable. That application was docketed as Case No. PUE000343. Also on June 16, 2000, and related to the Project, the Company filed a Motion for Determination of Applicability of, or in the Alternative, for Exemption or Waiver from, Bidding Rules.

On July 5, 2000, Virginia Power filed another application related to the Project. In that application the Company sought: (1) authority from the Commission to participate in lease financing arrangements of approximately \$300 million for construction, (2) a declaration that the Commission will not assert jurisdiction over the financing parties to the transaction, and (3) an exemption from, approval under, or determination that approval under § 56-234.3 is not required for the Company to enter into certain agreements in connection with the financing. The July 5 application also seeks approval under (i) Chapter 3 of Title 56 of the Code of Virginia, because the financing arrangements may be considered to create an evidence of indebtedness; (ii) Chapter 4 of Title 56 of the Virginia Code, because the transaction will involve jurisdictional contracts or arrangements between Virginia Power and a subsidiary of Dominion Energy, Inc., an affiliate; and (iii) Chapter 5 of Title 56 of the Code of Virginia Power proposes to transfer real property at Possum Point, by means of a ground lease, on which the new facility will be constructed and will be reacquiring the constructed facility and related real property through a sublease. That application was docketed as Case No. PUF000021.

\*2 On July 26, 2000, the Commission issued an Order Inviting Comments and Responses and Prescribing Notice in which it docketed the proceedings, identified preliminary issues presented in these cases, appointed a hearing examiner to make recommendations on those preliminary issues, and required public notice.

The preliminary issues presented by the applications that the Commission concluded should be first addressed included:

(1) Whether the Bidding Rules<sup>2</sup> are applicable to the Project, or in the alternative, if they do apply, whether the Commission should grant Virginia Power an exemption to these Rules.

(2) Whether the Commission should approve this Project exclusively under § 56-580 D of the Code of Virginia, or under §§ 56-234.3, and/or 56-265.2 as well.

(3) If § 56-234.3 of the Code of Virginia applies to this project, whether the Company should be granted an exemption from that provision, or approval under it to make "at risk" financial expenditures in association with the Project.

On August 21, 2000, Staff and the Company filed Comments addressing the issues outlined in the Commission's order. The Virginia Committee for Fair Utility Rates had filed Notices of Protest but did not file comments on the preliminary issues or protests in these cases. No requests for a hearing were made.

On September 1, 2000, an Interim Report on Preliminary Issues was filed in which it was found that: 1. The Bidding Rules are applicable, but a waiver of those rules should not be granted and does not appear necessary in this case;

2. The Company should be directed to supplement its prefiled direct testimony with information on the alternatives bid in its January 1999 and December 1999 solicitations if relevant to this case. If not relevant, the Company should so advise the Commission in comments hereto;

3. If the recent solicitation is not relevant to consideration of market alternatives herein, the Company should be directed to issue a Request for Proposals on a parallel track to consideration of this Project;

4. The application should be evaluated pursuant to Virginia Code §§ 56-46,56-234.3, 56-265.2, and 56-580 D;

5. The Company should file an affidavit and schedule of expected expenditures as described above with its comments to this Report; and

6. Virginia Power should be granted interim authority to undertake permitting and preliminary site work, and to make financial expenditures for the proposed Project at its own expense and risk subject to the Commission's review of the supporting affidavit.

On September 8, 2000, Virginia Power filed Comments taking exception to the findings in the September 1, 2000, report and also withdrew its request for approval of "at risk" financial expenditures.

On October 3, 2000, the Commission issued an Order in Case No. PUF000021. It recognized that the preliminary issues were pending decision but concluded that it was in the public interest to approve the Chapter 4-related aspect of the described transaction docketed in Case No. PUF000021, contingent upon the issuance of any necessary certificates of public convenience and necessity, authorizations, and approvals. It concluded that if it found:

\*3 in these separate rulings that the plant should be built, with the proposed financing, then the affiliate arrangement proposed herein does not appear to be contrary to the public interest. If we find the proposed... mechanics of its financing, not to be in the public interest, the approval granted herein shall be modified accordingly, as provided by § 56-80 of the Code of Virginia.<sup>3</sup>

The Commission therefore approved "[t]he request by Virginia Power for authority to enter into a financial transaction with an affiliate... pursuant to Chapter 4 of Title 56 of the Code of Virginia, contingent upon our subsequent issuance of all additional, required authorizations, approvals and certificates" but made clear that "[a]ll further aspects of this application, as discussed above, remain under review and subject to further orders of the Commission."<sup>4</sup>

The Commission issued an Order for Notice and Hearing on October 18, 2000. After consideration of the applications, Hearing Examiner Report and comments, and applicable statutes, the Commission concluded that the Bidding Rules do apply to the Project, but that no further bids need be solicited by the Company since it had conducted two unrestricted solicitations in the recent past. However, the Commission cautioned that it would further scrutinize the responses to those solicitations to consider whether these responses present better alternatives than the Possum Point Project.

The Commission also determined that the Project should be considered under all applicable statutes, and that §§ 56-234.3, -265.2, and -580 D of the Code of Virginia can, and should be, harmonized.

Our regulation of the construction and operation of generating facilities now must consider all applicable statutes, including §§ 56-234.3, -265.2, and -580 D of the Code of Virginia. These respective statutes emphasize slightly different public interest criteria by which we must evaluate the construction and operation of generating units such as the Possum Point Project, but they are not in conflict. <sup>5</sup>

The Commission found no ruling was necessary on the issue of whether the Company should be granted approval to make "at risk" expenditures related to the Project, but noted that the Company appeared to reserve the right to request "at risk" approvals at a later date.

Finally, the Commission found consistent with the requirements of §§ 56-234.3 and -265.2 of the Code of Virginia, that notice should be provided and hearings should be held. Accordingly, public notice was required, a public hearing was scheduled, and a procedural schedule was established.

On November 17, 2000, the Commission issued another order in Case No. PUF000021. The Commission expressed concern about Virginia Power's ability to obtain and maintain control over the new facility at Possum Point from DEI Sub, a subsidiary of Dominion Energy, Inc. ("DEI"). Specifically, the Commission required Virginia Power to:

\*4 (1) take all actions necessary to ensure that it will have the right to acquire control of the New Facility through the Sublease upon completion of construction;

(2) reform the Sublease to the extent necessary to assure that Virginia Power can maintain, to the extent practicable, the same control of the New Facility as DEI Sub may enjoy under the Lease;

(3) take all steps necessary to obtain and assure the Company's continuing control over the New Facility under the Sublease as reformed, pending a subsequent order of the Commission; and

(4) obtain Commission authority before transferring control of the New Facility to any other entity.

The Commission also found that:

(1) the determination regarding whether DEI Sub or other parties to this transaction are public utilities requiring certificates of public convenience and necessity shall be considered as part of Case No. PUE000343;

(2) pending the resolution of the issue raised in condition (1) above, DEI Sub may not divest Virginia Power of control of the facility without Commission authorization to do so;

(3) the real property subject to the ground lease approved herein may only be used to accommodate construction of the New Facility;

(4) the approval granted herein is subject to further authorizations and conditions, and the issuance of appropriate certificates in Case No. PUE000343; and

(5) the approval granted herein does not decide the issue of whether the New Facility is needed by Virginia Power. The issue of need identified in condition (5) herein will be determined in Case No. PUE000343, as part of our determination made under § 56-234.3 of the Code of Virginia. (Footnote omitted.)

On January 8, 2001, Virginia Power and the Staff jointly filed a letter to advise the Commission of certain agreements reached by the Company and Staff which could significantly streamline the public hearing scheduled for January 16, 2001.<sup>6</sup> Specifically they agreed that all testimony and exhibits could be admitted into the record without the need for witnesses to appear and without cross-examination. They also agreed that the prefiled evidence supported the issuance of a certificate of public convenience and necessity for the proposed project, which includes the construction of a combined cycle unit at the Possum Point Power Station subject to certain conditions.

The case was heard as scheduled on January 16, 2001. Appearances were entered by William H. Chambliss, Esquire and Sherry H. Bridewell, Esquire, counsel for the Staff and James C. Dimitri, Esquire, counsel for the Company.

Proof of the notice of the applications was marked and admitted into the record. A copy of the transcript is filed with this report.

## SUMMARY OF THE RECORD

The Company is seeking approval to reconfigure several existing units and to construct a new unit at the Possum Point Power Station, located in Prince William County. The Company's proposed Project would result in the retirement of the Company's Possum Point Units 1 and 2 which are oil-fired and have a combined capacity of 143 MW; conversion of Possum Point Units 3 and 4 from coal to natural gas which have a combined capacity of 322 MW; and the construction of a new 540 MW gas-fired combined cycle generating unit, Unit 6.<sup>7</sup> Unit 6 will consist of two gas turbines, two heat recovery steam generators (HRSGs), a steam turbine, and associated equipment. The conversion of Units 3 and 4 is expected to cost \$14 million dollars and the new unit is expected to cost \$280 to \$300 million. The proposed Project will result in a net increase of 397 MW in the Company's generating capacity.

\*5 The Company presented testimony and an affidavit from E. Paul Hilton, Pamela F. Faggert, Thorald A. Evans, <sup>8</sup> Charles A. Stadelmeier, and Jeffrey L. Jones in support of its applications. Mr. Hilton provided an overview of the Project. <sup>9</sup> Detailed aspects of the Project are addressed in the prefiled testimonies of Pamela Faggert, who documents the environmental considerations which were major factors in developing the Project; <sup>10</sup> Thorald Evans, who described the development and construction of the Project; <sup>11</sup> Charles Stadelmeier, who addressed the need for generation capacity to meet customers' needs; <sup>12</sup> and Jeffrey Jones who offered testimony on other considered alternatives. <sup>13</sup>

The Project is part of a comprehensive plan to improve air quality and meet existing and proposed air emissions limitations in northern Virginia. <sup>14</sup> It is intended to respond to changing environmental standards in a cost-effective way that also enhances service reliability. Ms. Faggert confirmed that, as anticipated, the Virginia Department of Environmental Quality ("DEQ") was changing emission standards. She testified that:

On September 29, 2000, the DEQ issued an air permit for the Possum Point Power Station. As anticipated, this permit requires that the Station meet a combined average emission rate of 0.15 pounds per million Btu's  $NO_x$  from all emission sources at the Station during the five-month (May-September) ozone season. This permit applies to existing and new generation at Possum Point, such that the combined average emission rate cannot be exceeded. <sup>15</sup>

She reported that the new emissions standard takes effect in 2003, and that the average emissions from the existing facilities at Possum Point exceed the new rate. She added that the coal-burning Units 3 and 4 far exceed the new level. She verified that:

Compliance with the new permit is based on the installation of the proposed Possum Point Unit 6 combined cycle unit, shutting down Units 1 and 2, and converting Units 3 and 4 from coal to natural gas. These changes will enable the facility to meet the overall limit of 0.15 pounds per million Btu's  $NO_x$  from all emission sources.<sup>16</sup>

Staff offered the testimony of Cody D. Walker, Lawrence T. Oliver, and Jarilaos Stavrou. Staff recommends that the Commission issue a certificate of public convenience and necessity and approve the proposed Project under certain conditions. In prefiled testimony Mr. Walker addressed the need for the Project, the impact on reserve margins in the Company's control area, alternatives to the Project, the results of the DEQ review, and general public interest concerns. <sup>17</sup> Mr. Oliver addressed the Company's plans for financing the Project, and commented on the redrafted sublease and memorandum of understanding. <sup>18</sup> Mr. Stavrou addressed the method used by the Company to forecast load growth and capacity needs, and the economic benefits that might accrue to northern Virginia as a result of the Project's expected contribution to meet environmental standards. <sup>19</sup> Mr. Stavrou also addressed the impact of this Project on Virginia Power's market power, stating that:

\*6 [f]rom a practical point of view, the Company already controls so much capacity that a net gain of about 400 MW seems rather inconsequential. According to its 2000 resource plan, the Company will have 14,044 MW installed capacity in 2000 and will have a total summer capability of 18,017 MW. To summarize, it seems that 400 MW of additional generating capacity would not much affect the Company's market position by increasing, or, if the Project is denied, decreasing any market power that it already might have. <sup>20</sup>

Finally, Staff did not oppose Virginia Power's request for a finding that the financing entities involved in the Project are not subject to jurisdiction as public utilities based on and limited to the facts of this particular case and asked the Commission to find that the stipulations regarding DEI Sub and the Grantor Trust<sup>21</sup> participating in the financing regarding the new unit be deemed to have no precedential effect in any subsequent or separately docketed proceeding.<sup>22</sup>

## DISCUSSION

The Commission has traditionally considered proposed generation facilities pursuant to Virginia Code §§ 56-46.1, -234.3 and -265.2. The Commission has reviewed the need for the facility, environmental impacts of the proposed facilities, the effect of the facility on economic development in Virginia, the effect of the facilities on service reliability, costs, alternatives and the public interest under those statutes. Virginia Code § 56.234.3 requires that:

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[p]rior to construction or financial commitments therefor, any electric utility subject to the jurisdiction of the State Corporation Commission intending to construct any new generation facility capable of producing 100 megawatts or more of electric energy shall submit to the State Corporation Commission a petition setting forth the nature of the proposed construction and the necessity therefor in relation to its projected forecast of programs of operation.

That statute requires the Commission to determine that the construction of a proposed project is "necessary to enable the public utility to furnish reasonably adequate service and facilities at reasonable and just rates."

Section 56-265.2 of the Code provides that "[i]t shall be unlawful for any public utility to construct...any facilities for use in public utility service...without first having obtained a certificate from the Commission that the public convenience and necessity require the exercise of such right or privilege." Section 56-265.2 thus requires a general assessment of the ""public convenience and necessity" which encompasses need, reliability, environmental concerns, economics, and more. The Commission also has held that other criteria must be considered, including:

cost estimates, choice of technology, construction plans and proposed manner of carrying out the project are reasonable; and that there are no suitable alternatives to the proposed construction, such as conservation and load management, upgrading existing units, or obtaining the necessary power from resources other than the utility's own facilities.<sup>23</sup>

\*7 Recently, the Commission has considered the level of Virginia Power's ownership of generation in its control area.<sup>24</sup>

Virginia Code § 56-46.1 requires the Commission to "give consideration to the effect of that facility on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact" and, additionally, the Commission "(i) may consider the effect of the proposed facility on economic development within the Commonwealth and (ii) shall consider any improvements in service reliability that may result from the construction of such facility."

Section 56-580 D of the Code also now requires the Commission to find that the proposed facility will have no material adverse effect on reliability of electric service and is not otherwise contrary to the public interest. It provides:

The Commission may permit the construction and operation of electrical generating facilities upon a finding that such generating facility and associated facilities including transmission lines and equipment (i) will have no material adverse effect upon reliability of electric service provided by any regulated public utility and (ii) are not otherwise contrary to the public interest. In review of its petition for a certificate to construct and operate a generating facility described in this subsection, the Commission shall give consideration to the effect of the facility and associated facilities, including transmission lines and equipment, on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact as provided in § 56-46.1.

That statute requires the Commission to consider the effect of the facilities on the environment and establish such conditions as may be desirable or necessary to minimize any adverse environmental impacts. Thus, the Commission must consider need, alternatives, the impact on the environment, service reliability, and the potential effect of the proposed capacity on the transition

to a competitive market. The Commission may, and has, included consideration of the effects of the proposed facility on economic development.

The Company maintains that the Project is necessary to improve air quality and to meet existing and proposed air limitations in northern Virginia. It also asserts that the Project is needed to serve its load and maintain voltage stability in northern Virginia.

Mr. Walker testified that continued load growth in the service territory and the need to maintain adequate reserve margins are expected to require additional generating resources. He observed that there are a number of competitive power producers that have announced plans to add capacity in Virginia Power's control area, but Commission approval to construct those facilities has not yet been sought, so there is a significant degree of uncertainty with respect to the amount of load that might be served from competitive suppliers.<sup>25</sup>

**\*8** Mr. Walker also affirmed the Company's testimony that the Project is unlikely to impact base rates due to non-fuel rate caps in effect potentially through July 2007, but he noted that the Project may impact fuel costs paid by retail consumers through a fuel factor. The Company's analysis indicates that annual fuel costs will increase by approximately \$15 million in 2004 and 2005 and approximately \$19 million in 2006 and 2007, a percentage increase of 1.4 to 1.7 percent. <sup>26</sup> Mr. Walker expressed reservations about the Company's analyses of alternative environmental compliance strategies, and coupled with uncertainty over natural gas cost estimates, he determined that a conclusion on how fuel costs will be impacted is difficult. <sup>27</sup>

Mr. Walker further reported that DEQ coordinated a review of the Project and noted that the Project is unlikely to have significant effects on transportation, forest resources, health issues and geology features, provided the recommendations set forth in the DEQ review are met, including the following:

 $\cdot$  A review of the National Wetlands Inventory map should be performed, and a site delineation should be conducted in any suspect wetland areas prior to project construction to determine the absence or location, extent or type of wetlands present on the site. Upon receipt of such information, the DEQ will determine whether certain permits will be required for construction of the project.

 $\cdot$  DEQ also recommends that the number of stream and wetland impacts be avoided to the maximum extent practicable. For unavoidable impacts, DEQ encourages the following practices to minimize impacts to wetlands and waterways: operation of machinery and construction vehicles outside of stream-beds and wetlands; use of directional drilling from upland locations for the installation of utilities, the preservation and redistribution of the top 12 inches of trench material removed from a wetland for use as a wetland seed bank and root stock in the excavated area, and the use of synthetic mats when in-stream work is unavoidable.

 $\cdot$  All solid wastes generated at the site should be reduced at the source, re-used, or recycled. All hazardous wastes should be minimized.

 $\cdot$  In general, the use of herbicides or pesticides for landscape maintenance should be done in accordance with principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species should be used.

• The Chesapeake Bay Local Assistance Department recommends that any Commission approval be conditioned upon a requirement that Virginia Power comply with requirements of the Chesapeake Bay Preservation Act.

 $\cdot$  The Department of Game and Inland Fisheries recommends that the applicant continue to coordinate with the agency in the future to determine additional nesting sites of the federally threatened bald eagle near the Possum Point power plant.

The DEQ also noted that a possible settlement between the U.S. Environmental Protection Agency, the State of New York, the U.S. Justice Department, and the Company had been announced and that there was a possibility that emissions reductions resulting from the settlement could not be used to "net out" more rigorous state air permitting requirements.<sup>28</sup>

\*9 In conclusion, Mr. Walker opined that the Project could increase costs to ratepayers and possibly result in increased total NO<sub>x</sub> emissions when compared to other compliance alternatives, but will provide additional capacity in the northern Virginia region during a period when actual reserve margins have been declining, provide other reliability related benefits through voltage support and enhanced transmission capability, and produce substantial reductions in air emissions. Mr. Walker testified that the potential cost increases that may be borne by the ratepayers may be more than offset by increased reliability. <sup>29</sup> He agrees that the Project is consistent with the overall public interest and recommends approval conditioned on compliance with the recommendations made in the DEQ coordinated review. <sup>30</sup> The Company agrees with those conditions, and I also find them to be appropriate.

Mr. Oliver filed testimony on the plans for financing the Project. He reported that on November 17, 2000, the Commission authorized the Company to execute the synthetic lease transaction contingent upon a number of conditions, including that the Company amend the sublease to the extent necessary to assure that Virginia Power can obtain and maintain control of the new facility, to the extent practicable, comparable to the controls obtained by DEI Sub under the lease.

Mr. Oliver confirmed that on December 4, 2000, a copy of the Company's reformed sublease agreement with DEI Sub was delivered to Staff. He testified that additional modifications were delivered on December 20, 2000. <sup>31</sup> Mr. Oliver recommended that any certificate granted should also provide that if Virginia Power does not obtain or maintain control of the new facility, except as may be provided by the Commission in response to the Company's Functional Separation Plan, the certificate should sunset or expire, and further authority regarding the disposition of the new facility would have to be requested from the Commission. <sup>32</sup> That condition is also reasonable and was not opposed by Virginia Power.

Finally, Virginia Power requested that the Commission make a finding that the lessor under the synthetic lease financing for the Project (a Grantor Trust formed to construct and own the new facility and lease it to the sublessor) and the sublessor, DEI Sub, in the synthetic lease transaction be determined not to be public utilities subject to Commission jurisdiction. The Commission deferred action on this issue and referred it to this proceeding for resolution.<sup>33</sup>

As explained in the application and discovery in the financing proceeding, these two entities are vehicles created solely for financing construction of the new facility, and as proposed, the only entity that will be operating the new facility to generate electricity as a public utility will be Virginia Power, which will have the sole right to use the new facility under its sublease from the sublessor. <sup>34</sup> Moreover, as discussed in Mr. Oliver's testimony, revisions were made to the transaction documentation that addressed Staff's concerns regarding Virginia Power's control over the new facility and Virginia Power has agreed above to an additional condition assuring that the new facility cannot be operated by anyone other than Virginia Power unless the Commission approves. Finally, a finding of nonjurisdiction with respect to these two financing vehicles is integral to the financing. The Staff did not address these issues in its testimony but does not oppose the requested findings of nonjurisdiction, based on and limited to the facts of this case. <sup>35</sup> The Company and Staff further agree that such a finding in this case shall be deemed to have no precedential effect in any subsequent, separately docketed proceedings. <sup>36</sup> I find that such a finding is reasonable and supported by the record in this case.

## FINDINGS AND RECOMMENDATIONS

\*10 Based on the evidence, I find that:

1. The proposed Possum Point Project as more particularly described in the June 16, 2000 application, is in the public interest and a certificate of public convenience and necessity should be issued subject to compliance with all recommendations set forth in the DEQ coordinated review, including the following conditions:

(a) A review of the National Wetlands Inventory map should be performed, and a site delineation should be conducted in any suspect wetland areas prior to project construction to determine the absence or location, extent or type of wetlands present on the site. Upon receipt of such information, the DEQ will determine whether certain permits will be required for construction of the project;

(b) As recommended by DEQ, the number of stream and wetland impacts should be avoided to the maximum extent practicable. For unavoidable impacts, the following practices should be utilized to minimize impacts to wetlands and waterways: operation of machinery and construction vehicles outside of the stream-beds and wetlands, use of directional drilling from upland locations for the installation of utilities; the preservation and redistribution of the top 12 inches of trench material removed from a wetland for use as a wetland seed bank and root stock in the excavated area, and the use of synthetic mats when in-stream work is unavoidable;

(c) All solid wastes generated at the site should be reduced at the source, re-used, or recycled. All hazardous wastes should be minimized;

(d) In general, the use of herbicides or pesticides for landscape maintenance should be done in accordance with principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species should be used;

(e) As recommended by the Chesapeake Bay Local Assistance Department any Commission approval should be conditioned upon a requirement that Virginia Power comply with requirements of the Chesapeake Bay Preservation Act;

(f) As recommended by the Department of Game and Inland Fisheries, Virginia Power should continue to coordinate with that agency in the future to determine additional nesting sites of the federally threatened bald eagle near the Possum Point Power Station;

2. If Virginia Power does not obtain or maintain control of the new facility, except as may be provided by the Commission in response to the Company's Functional Separation Plan. The certificate recommended herein would sunset or expire, and further authority regarding the disposition of the new facility would have to be requested from the Commission; and

3. The Lessor under the synthetic lease financing for the Project and the Sublessor as described more fully above should be determined not to be public utilities subject to Commission jurisdiction based on and limited to the facts of this case.

I therefore *RECOMMEND* that the Commission enter an order that:

1. ADOPTS the findings in this Report;

\*11 2. *GRANTS* the Company's application for a certificate of public convenience and necessity for the Possum Point Project pursuant to Virginia Code §§ 56-46.1, 56-234.3, 56-265.2, and 56-580 D, and related provisions of Title 56 as conditioned herein; and

3. DISMISSES this case from the Commission's docket of active cases, upon issuance of the required certificates.

## COMMENTS

The parties are advised that any comments (Section 12.1-31 of the Code of Virginia and Commission Rule 5:16(e)) to this Report must be filed with the Clerk of the Commission in writing, in an original and fifteen (15) copies, within seven (7) days from the date hereof. The mailing address to which any such filing must be sent is Document Control Center, P.O. Box 2118, Richmond, Virginia 23218. Any party filing such comments shall attach a certificate to the foot of such document certifying that copies have been mailed or delivered to all counsel of record and any such party not represented by counsel.

Respectfully submitted,

Deborah V. Ellenberg Chief Hearing Examiner

Footnotes

- 1 Units 1 and 2 have a combined rated capacity of 143 MW, Units 3 and 4 have a rated capacity of 322 MW, and the new unit is proposed to have a capacity of 540 MW.
- 2 20 VAC 5-301-10 et seq.
- 3 *Application of Virginia Electric and Power Company, For authority under Chapters 3, 4, and 5 of Title 56 of the Code of Virginia to participate in lease financing arrangements for construction of generation facilities, and for a declaration of non-jurisdiction*, Case No. PUF000021, Order at 4 (October 3, 2000) (Document Control Center No. 001010176).
- 4 <u>Id.</u> at 5.
- 5 Application of Virginia Electric and Power Company, For approval of generation facilities pursuant to Virginia Code § 56-580 D or, in the alternative, for approval of expenditures pursuant to Virginia Code § 56-234.3 and for a certificate of public convenience and necessity pursuant to Virginia Code § 56-265.2 and Application of Virginia Electric and Power Company, For authority under Chapters 3, 4, and 5 of Title 56 of the Code of Virginia to participate in lease financing arrangements for construction of generation facilities, and for a declaration of non-jurisdiction, Order for Notice and Hearing at 9, Case No. PUE000343 and PUF000021 (October 18, 2000) (Document Control Center No. 001040095).
- 6 Exhibit 2.
- 7 Virginia Power is not proposing any changes to Possum Point Unit 5, a 786 MW oil-fired unit.
- 8 Director of the Project; Transcript 15.
- 9 Exhibit EPH-4
- 10 Exhibits PFF-3, PFF-5 and PFF-11.
- 11 Exhibits TAE-6, TAE-8.
- 12 Exhibit CAS-7.
- 13 Exhibits JLJ-9 and 10 (proprietary).
- 14 Exhibits EPH-4 and PFF-5.
- 15 Exhibit PFF-11, at 2.
- 16 <u>Id.</u>
- 17 Exhibit CDW-12.
- 18 Exhibit LTO-13.
- 19 Exhibit JS-14.
- 20 <u>Id.</u> at 8.
- 21 Dominion Energy, Inc. ("DEI") is an affiliate of Virginia Power. DEI Sub is a subsidiary of DEI created to lease the new facility from the lessor and sublease it to Virginia Power upon completion of the construction.
- Exhibit 2, Transcript 7.
- 23 Application of Virginia Electric and Power Company, Case No. PUE860058, (the "Chesterfield 7 case"), 1987 S.C.C. Ann. Rep. 262.
- 24 *Application of Virginia Electric and Power Company*, Case Nos. PUE980462 (the "*Remington* case") and PUE000009 (the "Ladysmith case").
- Exhibit CDW-12, at 14.
- 26 <u>Id.</u>
- 27 <u>Id.</u> at 16.

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- 28 <u>Id.</u> at 21-22
- 29 Id. at 22.
- 30 Id. at 23.
- 31 Exhibit LTO-13, at 8.
- 32 Id. at 9.
- 33 Application of Virginia Electric and Power Company, For authority under Chapters 3, 4, and 5 of Title 56 of the Code of Virginia to participate in lease financing arrangements for construction of generation facilities, and for a declaration of non-jurisdiction, Case No. PUF000021, Order (November 17, 2000).
- 34 Transcript 7.
- 35 Id.
- 36 Exhibit 2, Transcript 7 and 11.

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## 2001 WL 1043071 (Va.S.C.C.), 2001 S.C.C. Ann. Rept. 194 Virginia State Corporation Commission

# PETITION OF VIRGINIA ELECTRIC AND POWER COMPANY AND DOMINION TRANSMISSION, INC.

\*1 Division of Public Utility Accounting Case No. PUA010025 June 29, 2001

For approval of a pipeline construction contract and pipeline operation and maintenance agreement under Chapter 4, Title 56, of the Code of Virginia and for expedited consideration

## **ORDER GRANTING APPROVAL**

On May 21, 2001, Virginia Electric and Power Company ("Dominion Virginia Power" or the "Company") and Dominion Transmission, Inc. ("DTI"), filed a petition with the Commission under Chapter 4, Title 56, of the Code of Virginia for approval of a Pipeline Construction Contract between Dominion Virginia Power and DTI (the "Construction Contract") for the construction of natural gas pipeline facilities ("New Gas Facilities") needed to receive and deliver natural gas to Dominion Virginia Power's Possum Point Power Station (the "Station"). The Company also requests approval of a Pipeline Operation and Maintenance Agreement between Dominion Virginia Power and DTI (the "O&M Agreement") for the operation and maintenance of the New Gas Facilities. The Company requests expedited consideration of the petition.

On June 27, 2001, and June 28, 2001, Dominion Virginia Power filed revisions to both the Construction Contract and the O&M Agreement.

On March 12, 2001, the Commission issued an order in Case Nos. PUE000343 and PUF000021, authorizing Dominion Virginia Power to construct and operate a new natural gas-fired, combined cycle power generation facility at the Station in Prince William County, Virginia. This proposal was part of an environmental improvement project for the Station under which Units 1 and 2, which currently burn fuel oil, will be taken out of service. Units 3 and 4 will be converted from coal to natural gas, and the new combined cycle facility, Unit 6, will burn natural gas. Dominion Virginia Power represents that the project is a critical part of its efforts to improve air quality and meet proposed air emissions limitations in Northern Virginia. The March 12 Order also authorized Dominion Virginia Power to participate in a synthetic lease arrangement to finance construction of Unit 6.

## Construction Contract

The Construction Contract is the form of agreement under which DTI will perform for Dominion Virginia Power all of the activities (including clearing, permitting, designing, rights-of-way acquisition services, and installing) required to complete the New Gas Facilities so they are capable of being placed in service on or before October 1, 2002. Pursuant to the Construction Contract, as revised by the Company's filing with the Commission on June 28, 2001, the total estimated price for the New Gas Facilities is \$24,275,000. According to Dominion Virginia Power's June 28, 2001, submission, the revised estimate of \$24,275,000 reflects net increases for thicker wall pipe, more extensive directional drilling, and assumes the addition of overpressure protection facilities at the Cove Point interconnect. Such facilities may be required to meet the maximum operating pressure limitation prescribed in the Commission's Order Granting Preliminary Approval issued on June 20, 2001, in Case No. PUE000741. However, Dominion Virginia Power proposes to reimburse DTI for the actual cost of such services, subject to substantiation by DTI and approval by Dominion Virginia Power.

Post-Hearing Exhibit 4a

### O& M Agreement

The O&M Agreement is the form of agreement under which DTI will operate, maintain, and repair the New Gas Facilities so that the New Gas Facilities will be used in a safe, efficient, and economical manner for receipt, delivery, measurement, and transportation of gas. According to the terms of the O&M Agreement, Dominion Virginia Power will pay DTI a management fee, estimated to be \$82,995 per year. However, Dominion Virginia Power will reimburse DTI for actual costs, subject to substantiation by DTI and approval by Dominion Virginia Power. The O&M Agreement begins on the date of execution and continues until December 31, 2004, subject to automatic renewal unless either party provides 180 days' notice to the contrary. In connection with the revised cost estimates previously described, Dominion Virginia Power filed a revised O&M Agreement reflecting possible inclusion of the overpressure protection equipment and related costs.

THE COMMISSION, upon consideration of the petition and representations of Dominion Virginia Power and having been advised by its Staff, is of the opinion and finds, that with the conditions and modifications detailed herein, the Construction Contract and the O&M Agreement, as modified by the Company's revisions to the same filed with the Commission on June 27, 2001, and June 28, 2001, are in the public interest and should be approved.

In reviewing the two agreements in this case, Staff expressed concerns whether Dominion Virginia Power would be able to obtain and maintain ultimate control over the New Gas Facilities under the terms and conditions contained in the Construction Contract and the O&M Agreement and regarding the appropriate pricing (estimated as opposed to firm) incorporated in these agreements. As a result of Staff's concern over Dominion Virginia Power's ability to obtain and maintain control over such facilities, Dominion Virginia Power agreed to revise the language in both of the Construction Contract and the O&M Agreement to address these issues. On June 27, 2001, and on June 28, 2001, Dominion Virginia Power filed a revised Construction Contract and a revised O&M Agreement incorporating the agreed upon language to address Staff's concerns about control and clarifying the amounts that the Company estimates for construction of the pipeline and its associated facilities.

\*3 We note that the other two issues, pricing under both the Construction Contract and the O&M Agreement are at actual costs. We find that this is appropriate as long as costs are less than market. Therefore, pricing should be at the lower of cost or market. We also believe that the revised estimated prices of \$24,275,000, under the Construction Contract and \$82,995 per year under the O&M Agreement should be the upper limit that Dominion Virginia Power can pay DTI. If additional costs are incurred by DTI pursuant to the Construction Contract and the O&M Agreement, Dominion Virginia Power and DTI shall file for approval to reimburse DTI for such costs consistent with the procedure detailed herein.

## Accordingly, IT IS ORDERED THAT:

1) Pursuant to § 56-77 of the Code of Virginia, Dominion Virginia Power is hereby granted approval to enter into the Construction Contract and the O&M Agreement, as revised in its filings with the Commission made on June 27, 2001, and June 28, 2001, under the terms and conditions and for the purposes as described herein, subject to the modifications detailed herein.

2) Dominion Virginia Power shall pay DTI the lower of cost or market for services rendered under the Construction Contract and the O&M Agreement, up to a maximum of \$24,275,000 under the Construction Contract and up to a maximum of \$82,995 per year under the O&M Agreement. Dominion Virginia Power shall file a new application for approval to reimburse DTI any amounts in excess of the foregoing amounts. Such application shall include, among other things, detailed justification for the increased costs.

3) Should any terms and conditions of the Construction Contract or the O&M Agreement change from those approved herein, additional Commission approval shall be required for such changes.

4) Dominion Virginia Power shall bear the burden of proving, during any rate proceeding, that it paid DTI the lower of cost or market for services received under each of the Construction Contract and the O&M Agreement.

5) The approval granted herein shall not preclude the Commission from exercising the provisions of §§ 56-78 and-80 of the Code of Virginia hereafter.

6) The Commission reserves the authority to examine the books and records of any affiliate of Dominion Virginia Power, including DTI, in connection with the Construction Contract and the O&M Agreement approved herein whether or not the Commission regulates such affiliate.

7) Within thirty (30) days of this order, Dominion Virginia Power shall submit a revised executed copy of the Construction Contract and the O&M Agreement, incorporating the modifications filed with the Commission under cover letter of counsel dated June 27, 2001, and June 28, 2001.

8) Dominion Virginia Power shall include the Construction Contract and the O&M Agreement approved herein in its Annual Report of Affiliated Transactions submitted to the Director of Public Utility Accounting.

9) The approval granted herein shall have no implications for ratemaking purposes.

\*4 10) There appearing nothing further to be done in this matter, it hereby is dismissed.

Clinton Miller, Chairman Theodore V. Morrison, Jr. Hullihen Williams MooreCommissioners, State Corporation Commission

**End of Document** 

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