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May 1, 2017

Ms. M. Lynn Jarvis, Chief Clerk
North Carolina Utilities Commission
Dobbs Building
430 North Salisbury Street
Raleigh, North Carolina 27603

Re: Docket No. E-100, Sub 147
2017 Integrated Resource Plan Update Filing

Dear Ms. Jarvis:

Virginia Electric and Power Company ("Dominion" or the "Company") is pleased to submit to the North Carolina Utilities Commission ("NCUC" or "Commission") its 2017 Integrated Resource Plan Update Filing (the "2017 Plan" or "Plan") for the planning period of 2018-2032. The Plan is being submitted in accordance with § 62-2 of the North Carolina General Statutes and Commission Rule R8-60. Concurrently, the Plan is being filed with the Virginia State Corporation Commission ("SCC") in accordance with § 56-599 of the Code of Virginia.

As did its 2015 and 2016 predecessors, the 2017 Plan recognizes the extreme uncertainty facing the electric utility industry today, particularly regarding regulation of power station carbon dioxide ("CO_2") emissions. The U.S. Supreme Court's February 2016 stay of implementation of the federal Clean Power Plan ("CPP") issued by the U.S. Environmental Protection Agency ("EPA") remains in place pending resolution of a federal court appeals. In March 2017, President Donald J. Trump also ordered the EPA to begin the process of reviewing the CPP and determining "as soon as practicable" whether to revise the final rule or withdraw it. On April 4, 2017, in response to the executive order, the EPA issued a notice that it was initiating a review of the CPP, which could lead to proceedings to revise or rescind the rule. Also, a work group created by an executive order from Virginia Governor Terry McAuliffe continues to work toward its May 31, 2017 deadline of developing recommendations for state action to reduce CO_2 emissions to levels similar to those mandated by the CPP.

Facing this high level of uncertainty, the 2017 Plan, as did the 2015 and 2016 Plans, presents no recommended path, or "Preferred Plan," for meeting our customers' future energy needs. Instead, it presents a range of options representing plausible paths forward under a variety of scenarios, ranging from the absence of carbon dioxide regulations – a situation considered unlikely by the Company – to full implementation of the strictest compliance scenarios incorporated in the CPP. These "Alternative Plans" are discussed in detail in the 2017 Plan.

Major Focuses of the 2017 Plan

Despite this uncertainty, the 2017 Plan reflects several major judgments and decisions made by the Company regarding the future of its generating fleet and the best interests of its customers. These judgments are reflected in the Alternative Plans presented by the Company.

- Regardless of the final disposition of the CPP, the Company believes some form of carbon regulation is virtually assured in the future.

- The Company is committed to making the transition to a generation portfolio with lower emission rates. This transition has been underway for some time as the Company has recently added lower-emissions natural gas units and facilities powered by renewable energy to its fleet. Dominion's 2017 Plan will continue moving the Company forward to ensure its customers and its service area in the State of North Carolina and the Commonwealth of Virginia can efficiently move toward a cleaner energy future while maintaining diverse, reliable, and affordable sources of electricity.

- Solar energy will play a major role in meeting the energy needs of Dominion customers in the future. Solar technology is now cost-competitive with other more traditional forms of generation. The installed cost of utility-scale solar photovoltaic (PV) generation has declined by approximately 24 percent since the issuance of the 2016 Plan one year ago. As a result, large amounts of solar PV resources are included in each of the Alternative Plans because of their optimal economics in addition to their zero-emissions characteristics. In fact, all of the Alternative Plans call for the addition of at least 3,200 megawatts (MW) of additional solar capacity to the Company's generation fleet by 2032 and at least 5,280 MW of additional solar capacity by the conclusion of a longer, 25-year study period concluding in 2042. This solar development builds on a solid foundation. The Company has already added 56 MW of solar capacity to its fleet in Virginia, and has also built or is developing other solar facilities serving the needs of specific governmental and large business customers. Additionally, the Company anticipates signing by 2022 long-term contracts with 990 MW of solar facilities built by non-utility generators in Virginia and northeastern North Carolina.

- Other forms of low or no emissions generation will also be important to assuring that Dominion's customers have the energy they need in future decades. For example, all of the Alternative Plans call for the Company to seek additional 20-year license extensions for its existing nuclear units in Virginia, including Surry 1 and 2 and North Anna 1 and 2. Additionally, all of the plans continue the Company's assessment of zero-emissions wind technology through construction of the Virginia Offshore Wind Technology Assessment Project (VOWTAP), a test bed facility off the Virginia coast using two wind turbines with a combined capacity of 12 MW. The Alternative Plans call for VOWTAP to be operational by 2021. Dominion will also work to preserve other options to ensure it transitions smoothly to a cleaner energy future, such as continued assessment of offshore wind, energy storage mechanisms including pumped storage, and new nuclear generation. Additionally, Dominion will continue to evaluate options for cost-effective demand-side management programs, including initiatives designed to reduce peak demand and lower overall energy usage. Consumer education programs sponsored by the Company also will play a significant role in helping customers conserve energy and use it wisely.

- Finally, on the technical front, the Company recognizes that it must take steps toward modernizing the electric grid at both the transmission and distribution levels to develop a more dynamic system better equipped to respond to the growth of utility-scale solar facilities, as well as the expected proliferation of smaller, widely dispersed solar generating units. These trends are also discussed in the 2017 Plan.

Alternative Plans – Paths Forward Examined by the Company

While there is a high level of uncertainty surrounding the CPP and carbon regulation in general, the Company believes it is important that its planning process continue to include a thorough evaluation of

options for complying with the federal CPP rule. In fact, the SCC, in its Final Order on the 2016 Plan, directed that the Company's 2017 Plan include scenarios modeled on compliance options offered to the states by the federal rule. Additionally, Dominion considers that the CPP compliance options provide a reasonable proxy for the analysis of likely future regulation of carbon emissions, regardless of the ultimate fate of current federal rule.

Based on these considerations and recent directives from the SCC, the Company presents a series of eight Alternative Plans. They are based primarily on differing assumptions for power station CO_2 emissions regulations, ranging from the unlikely prospect of no regulation to full implementation of the CPP's strictest compliance scenarios.

The plans are described briefly below in two sections. One deals with a plan that fails to comply with the CPP. The second describes seven plans that comply with differing scenarios offered to the states by the CPP for meeting its carbon reduction mandates. Consistent with directives in the Commission's Final Order on the 2016 Plan, four of the CPP-compliant Alternative Plans were modeled on the assumption that the Company would achieve compliance on its own, with no need to purchase either emission rate credits (ERCs) or carbon allowances. Also following the SCC's directives, three of the CPP-compliant plans were modeled on the assumption that the Company would use ERC or allowance purchases to assist with compliance. Dominion expects markets for ERCs or allowances to mature and favors compliance strategies that include trading in these instruments.

Non-Compliant Plan

- Plan A: No CPP. The Alternative Plan is based on a future without any new limits on power station carbon dioxide emissions, a future the Company considers unlikely.[1] It does, however, comply with the Commission's directive in its 2016 Final Order for development of a least-cost base plan not compliant with the CPP.

CPP-Compliant Plans

- Plan B^{NT}: Intensity-Based Dual Rate (No Trading). The plan is based on a CPP compliance scenario limiting generating unit carbon intensity (the average amount of CO_2 released for each megawatt-hour [MWH] of electricity produced). Separate standards are set for fossil fuel-powered steam generating units (1,305 lbs of CO_2/MWH by 2030) and for combined-cycle natural gas-powered units (771 lbs of CO_2/MWH by 2030). The plan assumes that the Company will not acquire ERCs from the market to help comply with the standards.

- Plan C^{T}: Intensity-Based Dual Rate (Trading). The plan also follows the intensity-based CPP scenario described in Plan B^{NT}, but assumes the Company will use the ERC market to help achieve compliance.

- Plan D^{NT}: Mass-Based Existing Units (No Trading). This Alternative Plan is based on the CPP compliance scenario that limits total annual CO_2 emissions from a state's existing fossil fuel-powered generation fleet. In Virginia's case, the annual limit is approximately 27.43 million short tons of CO_2 by 2030. The plan assumes that the company will not procure carbon allowances from the market to help with compliance.

[1] The Company's new integrated combined cycle facilities have stringent CO_2 limits which will continue to apply.

- Plan E^T: Mass-Based Existing Units (Trading). The plan is also based on the CPP compliance pathway that limits total annual state CO_2 emissions from existing fossil-fueled generators. It assumes Dominion will use the carbon allowance markets to assist with compliance.

- Plan F^{NT}: Mass-Based All Units (No Trading). This Alternative Plan meets another possible CPP compliance scenario by capping total annual CO_2 emissions both from a state's existing fossil fuel-powered fleet and new units that may be added in the future. In Virginia's case, the annual limit by 2030 is approximately 27.83 million short tons of CO_2. The plan assumes Dominion will not use the carbon allowance markets to assist with compliance.

- Plan G^T: Mass-Based All Units (Trading). The plan is also designed to meet the CPP compliance requirements capping total annual CO_2 emissions from all of a state's fossil fuel-powered units, including those now in existence and those built in the future. The plan assumes Dominion will use the carbon allowance markets to achieve compliance.

- Plan H^{NT}: New Nuclear (No Trading). The plan also meets the CPP compliance requirements capping total annual CO_2 emissions from all of a state's fossil fuel-powered units, including those now in existence and those built in the future. Additionally, it assumes the company will not use the carbon allowance markets to assist in compliance. Plan H^{NT}: New Nuclear is the only Alternative Plan that includes construction of a third nuclear reactor at the company's North Anna Power Station. North Anna 3 would add 1,452 MW of base load, zero-emission capacity to the company's generating fleet. Plan H^{NT} calls for the unit to be operational by 2030. (It must be emphasized that Dominion has made no final decision on construction of the unit and will not do so until the reactor receives a combined operating license [COL] from the U.S. Nuclear Regulatory Commission.)

Common Elements of Alternative Plans

While the eight Alternative Plans differ in many respects, they also have significant common elements, with a strong focus on maintaining a diversified generating fleet with lower emission rates through the use of renewable resources, natural gas, and nuclear energy. All capacity numbers refer to nameplate ratings, the theoretical maximum output of the unit under optimal conditions. Major common elements through the 15-year planning period of 2018-2032 include:

- Development of solar PV capacity totaling approximately 3,200 MW by 2032.

- The addition of 990 MW of solar PV capacity owned by non-utility generators (NUGs) in northeastern North Carolina and Virginia under long-term contracts with the Company, with the NUG capacity to be added by 2022.

- Development of the 12 MW Virginia Offshore Wind Technology Advancement Project (VOWTAP), testing two wind turbines at a site off the coast of Virginia Beach, as early as 2021.

- Completion of Greensville County Power Station, a natural gas-powered combined cycle facility capable of producing approximately 1,585 MW and now under construction in Greensville County, Va., by 2019. (The Company expects construction to be completed in late 2018.)

- The addition of approximately 1,374 MW of new natural gas-powered combustion turbine (CT) units by 2032.

- Implementation of demand-side management programs, both already approved and currently proposed in Virginia and North Carolina, capable of reducing system peak demand by approximately 426 MW and annual energy consumption by 1,221 gigawatt-hours (GWH) by 2032. This represents a 29 percent increase in peak demand reduction and a 62 percent increase in annual energy savings over the levels proposed in the 2016 Plan.

- Additional 20-year relicensing for all four company-owned nuclear units in Virginia, Surry 1 and 2 and North Anna 1 and 2, with the Surry units relicensed by 2033 and 2034, and the North Anna units relicensed by 2038 and 2040, respectively.

Additional Generation Retirements in CPP-Compliant Alternative Plans

The seven CPP-compliant Alternative Plans call for potential additional closures of fossil-fueled generating units.

- All seven plans include the potential closure of Yorktown Unit 3, a 790-MW oil-fired facility, by 2022, and coal-fired Chesterfield Units 3 and 4, with a combined capacity of 261 MW, also by 2022.

- Plans F^{NT}: Mass-Based All Units and H^{NT}: New Nuclear also include the potential retirement of coal-fired Mecklenburg Units 1 and 2, with a combined capacity of 138 MW, and Clover Units 1 and 2, with a combined capacity of 439 MW, by 2025.

Additional Generation in Alternative Plans

The eight Alternative Plans, including the one non-compliant and seven CPP-compliant plans, also call for specific generation additions during the 15-year planning period beyond those common to all of the scenarios. All of the generation additions specific to individual Alternative Plans utilize zero or low emissions technology, including natural gas, solar, and nuclear energy.

For example, four of the plans (Plan B^{NT}: Intensity-Based Dual Rate, C^{T}: Intensity-Based Dual Rate, D^{NT}: Mass-Based Existing Units, and E^{T}: Mass-Based Existing Units) call for an additional natural gas-powered combined cycle facility with a capacity of 1,591 MW, by 2025.

Other generation additions, beyond those included in all eight Alternative Plans, are described below.

- Plan A: No CPP calls for an additional 458 MW of CT capacity and 160 MW of solar capacity.

- Plan B^{NT}: Intensity-Based Dual Rate includes an additional 160 MW of solar capacity.

- Plan C^{T}: Intensity-Based Dual Rate models an additional 80 MW of solar capacity.

- Plan D^{NT}: Mass-Based Existing Units includes an additional 80 MW of solar capacity.

- Plan E^{T}: Mass-Based Existing Units calls for an additional 80 MW of solar capacity.

- Plan F^{NT}: Mass-Based All Units models an additional 2,290 MW of CT capacity and 80 MW of solar capacity.

- Plan G^{T}: Mass-Based All Units calls for an additional 1,832 MW of CT capacity and 160 MW of solar capacity.

- Plan H^{NT}: New Nuclear models an additional 916 MW of CT capacity and 160 MW of solar capacity. Significantly, the plan also includes a new nuclear unit, North Anna 3, adding 1,452 MW of new nuclear capacity to the Company's generating fleet by 2030.

Cost and Rate Impact of Alternative Plans

The Company's analysis indicates that all seven CPP-compliant plans would require significant investments by Dominion and impose significant costs on it and its customers, leading to higher customer rates. However, the costs and rate impacts of the CPP-compliant scenarios vary significantly.

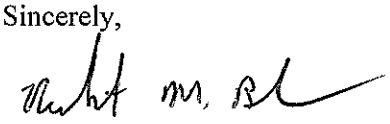
The net present value (NPV) in 2017 dollars of the additional costs imposed by the CPP-compliant Alternative Plans, above those that would otherwise be incurred in the absence of carbon regulation, ranges from a low of $2.3 billion for Plan C^{T}: Intensity-Based Dual Rate to a high of $14.8 billion for Plan H^{NT}: New Nuclear. These incremental costs would be incurred during the period from 2018 through 2042.

Similarly, the rate impacts of the CPP-compliant Alternative Plans vary widely. Plan C^{T}: Intensity-Based Dual Rate has the lowest rate impact, increasing the typical monthly residential bill for 1,000 kWh of usage by 1.6 percent by 2030. Customers would see the largest bill increase through implementation of H^{NT}: New Nuclear. Under that scenario, the typical monthly residential bill would be 22.0 percent higher by 2030 than it would be in the absence of carbon regulation. The other five CPP-compliant Alternative Plans are projected to have rate impacts ranging from 1.8 percent to 4.0 percent by 2030.

Transitioning to a Lower Emissions Future

The 2017 Plan recognizes that the Company, the State of North Carolina, and the Commonwealth of Virginia are making the transition to a lower emissions future, including lower rates of carbon emissions. Amid these challenges, Dominion remains committed to its longstanding goals of environmentally responsible operations; maintenance of a diverse, balanced generation fleet avoiding over-reliance on a single fuel type; and providing reliable and affordable energy for its customers. These goals guided development of the 2017 Plan and will guide its development of integrated resource plans in the future.

Sincerely,



Robert M. Blue