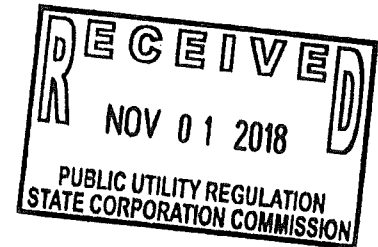


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November 1, 2018



VIA HAND DELIVERY

Ms. Kimberly B. Pate
Director, Division of Public Utility Accounting & Finance

Mr. William F. Stephens
Director, Division of Energy Regulation

State Corporation Commission
1300 E. Main Street
Richmond, Virginia 23219

*Dominion Virginia Power's
Annual Report to the State Corporation Commission on Renewable Energy,
in accordance with § 56-585.2 H of the Code of Virginia*

Dear Ms. Pate and Mr. Stephens:

In accordance with § 56-585.2 H of the Code of Virginia, Virginia Electric and Power Company d/b/a Dominion Energy Virginia ("Dominion Energy" or "the Company") submits its 2017 Annual Report to the State Corporation Commission ("Commission") on Renewable Energy.

In 2017 Dominion Energy Virginia met and exceeded its 2017 Virginia RPS Plan renewable target of 3,032,305 megawatt hours through implementation of its RPS Plan approved by the Commission as illustrated in Exhibit 2 of the attached Annual Report. Renewable generation from the Company's own resources (including through contracts with Non-Utility Generators) provide 21 percent of the Company's 2017 RPS Goal, some of which was banked and/or optimized as permitted by Va. Code § 56-585.2.

The Company will meet or exceed its 2018 Virginia RPS renewable target of 3,032,305 MWh through implementation of its RPS Plan approved by the Commission which is illustrated in Exhibit 3 of the attached report. The Company began 2018 with banked renewable energy

November 1, 2018

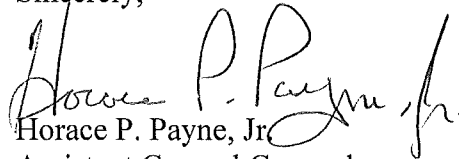
Page 2

and RECs of 3,534,372 MWh and expects to have a bank of approximately 4,018, 566 MWh of renewable energy and RECs toward future RPS targets at year – end 2018.

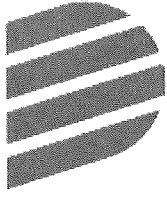
Beyond development of specific projects, the Company continues to encourage its customers to support renewable energy generation resources through voluntary participation in several renewable energy options, including its Rider G Renewable Energy Program, which offers customers a companion rate for purchase and retirement of RECs equal to all or a portion of a customer's monthly consumption.

Thank you for the opportunity to provide this information. If you or your staff members have any questions, please contact me.

Sincerely,



Horace P. Payne, Jr.
Assistant General Counsel



**Dominion
Energy**

Virginia Electric and Power Company

d/b/a

Dominion Energy Virginia

Annual Report to the State Corporation Commission

on Renewable Energy, in accordance with

§ 56-585.2.H of the Code of Virginia

November 1, 2018

I. INTRODUCTION

Pursuant to § 56-585.2 H of the Code of Virginia (“Va. Code”), Virginia Electric and Power Company (“Dominion Energy Virginia” or the “Company”) submits this Annual Report on Renewable Energy (“Report”) to the Virginia State Corporation Commission (“Commission”). Va. Code § 56-585.2 H requires each investor-owned incumbent electric utility in the Commonwealth to report to the Commission annually on (i) its efforts to meet renewable portfolio standard (“RPS”) goals (“RPS Goals”); (ii) its generation of renewable energy; and (iii) advances in renewable generation technology that affect the utility’s activities. Exhibit 1 to this Annual Report shows the Company’s RPS compliance position for meeting its RPS Goals, including 2017 actual compliance and 2018-2028 forecasted compliance. This Annual Report also describes generally the Company’s efforts to support renewable energy development as well as advances in renewable generation technology.

2017 RPS Compliance

The Company met and exceeded its 2017 Virginia RPS Plan renewable target of 3,032,305 megawatt hours (“MWh”) through implementation of its RPS Plan approved by the Commission as illustrated in Exhibit 2 of this Annual Report (as verified by James M. Billingsley). Renewable generation from the Company’s own resources (including through contracts with Non-Utility Generators (“NUGs”)) provided 21 percent of Dominion Energy Virginia’s 2017 RPS Goal, some of which was banked and/or optimized as permitted by Va. Code § 56-585.2.

II. EFFORTS TO MEET RENEWABLE PORTFOLIO STANDARD GOALS

A. **Statutory Guidance**

For the purposes of complying with Virginia’s RPS Goals as set forth in Va. Code § 56-

585.2 *et seq.*, “renewable energy” is defined (by reference to Va. Code § 56-576) as:

energy derived from sunlight, wind, falling water, biomass, sustainable or otherwise, (the definitions of which shall be liberally construed), energy from waste, land fill gas, municipal solid waste, wave motion, tides, and geothermal power, and does not include energy derived from coal, oil, natural gas, or nuclear power. Renewable energy shall also include the proportion of the thermal or electric energy from a facility that results from the co-firing of biomass.

Va. Code § 56-585.2 further defines how such renewable energy can qualify for compliance with the Virginia RPS Goals. Such renewable energy must be:

- generated in the Commonwealth or in the interconnection region of the regional transmission entity of which the participating utility is a member, as it may change from time to time, and purchased by a participating utility under a power purchase agreement; provided, however, that if such agreement was executed on or after July 1, 2013, the agreement shall expressly transfer ownership of renewable attributes, in addition to ownership of the energy, to the participating utility;
- generated by a public utility providing electric service in the Commonwealth from a facility in which the public utility owns at least a 49 percent interest and that is located in the Commonwealth, in the interconnection region of the regional transmission entity of which the participating utility is a member, or in a control area adjacent to such interconnection region; or
- represented by renewable energy certificates (“RECs”).¹
- “Renewable energy” shall not include electricity generated from pumped storage, but shall include run-of-river generation from a combined pumped-storage and run-of-river facility.

Va. Code § 56-585.2 B provides that “[a]ny investor-owned incumbent electric utility may apply to the Commission for approval to participate in a renewable energy portfolio standard program” and that the “Commission shall approve such application if the applicant

¹ “Renewable energy certificate” means either (i) a certificate issued by an affiliate of the regional transmission entity of which the participating utility is a member, as it may change from time to time, or any successor to such affiliate, and held or acquired by such utility, that validates the generation of renewable energy by eligible sources in the interconnection region of the regional transmission entity or (ii) a certificate issued by the Commission pursuant to subsection J and held or acquired by a participating utility, that validates a qualified investment made by the participating utility. Va. Code § 56-585.2.

demonstrates that it has a reasonable expectation of achieving 12 percent of its base year electric energy sales from renewable energy sources during calendar year 2022, and 15 percent of its base year electric energy sales from renewable energy sources during calendar year 2025”

Va. Code § 56-585.2 D sets forth the RPS Goals:

- RPS Goal I: In calendar year 2010, 4 percent of total electric energy sold in the base year.
- RPS Goal II: For calendar years 2011 through 2015, inclusive, an average of 4 percent of total electric energy sold in the base year, and in calendar year 2016, 7 percent of total electric energy sold in the base year.
- RPS Goal III: For calendar years 2017 through 2021, inclusive, an average of 7 percent of total electric energy sold in the base year, and in calendar year 2022, 12 percent of total electric energy sold in the base year.
- RPS Goal IV: For calendar years 2023 and 2024, inclusive, an average of 12 percent of total electric energy sold in the base year, and in calendar year 2025, 15 percent of total electric energy sold in the base year.

B. Dominion Energy Virginia’s RPS Plan

On July 28, 2009, the Company submitted its Application for Approval to Participate in a Renewable Energy Portfolio Standard Program Pursuant to Va. Code § 56-585.2 (the “Application”), in Case No. PUE-2009-00082. The Application represented the Company’s initial filing for approval of its RPS Plan. On May 18, 2010, the Commission issued its Final Order (the “Final Order”) in that initial proceeding, finding that the Company has demonstrated that it has a reasonable expectation of achieving 12 percent of its base year electric energy sales from renewable energy sources during calendar year 2022, and 15 percent of its base year electric energy sales from renewable energy sources during calendar year 2025, and granting Dominion Energy Virginia’s Application seeking approval to participate in a RPS program.

Any references to MWh goals, renewable generation and REC transactions set forth in this Annual Report are shown at the Virginia Jurisdictional percentage level and not at the Total System level. The 2017 Virginia Jurisdictional percentage is 80.3861 percent of the Total System level.²

As set forth in the Company's approved RPS Plan, the Company plans to use existing renewable energy sources (including that renewable energy provided by contract with NUGs),³ to develop new renewable energy generation facilities where feasible, and to purchase RECs to achieve the RPS Goals. Specifically, the renewable energy from existing renewable energy sources identified in the 2018 Integrated Resource Plan, are estimated to be approximately 500 thousand MWh in 2022 and 2025.⁴ The Company also plans to develop additional new renewable generation facilities where feasible or purchase approximately 4.7 million RECs in 2022 and 6 million RECs in 2025 to meet and comply with the 2022 and 2025 targets of 5.2 million MWh and 6.5 million MWh, respectively.

The Company met RPS Goal I in 2010⁵ as well as RPS Goal II for 2011 through 2015 and RPS Goal III for 2016. The Company's RPS Plan will also meet the interim RPS Goals III and IV as described in the RPS Application. Exhibit 1 to this Annual Report shows the Company's RPS compliance position for meeting its RPS Goals, including 2017 actual compliance and 2018-2028 forecasted compliance.

² Rounded for the purposes of this report to 80.39 percent. This percentage is based on the Company's most recent cost of service study for the 12 months ending December 31, 2017. This allocation factor is used as the basis for apportioning existing generation MWh for inclusion in its Virginia RPS Plan.

³ The Commission approved the Company's use of renewable energy from NUGs where the contract on renewable attributes was silent in its Order on Petition, *Petition of Virginia Electric and Power Company for a declaratory judgment*, Case No. PUE-2010-00132 (June 17, 2011). Legislation passed in 2013 requires "if such agreement was executed on or after July 1, 2013, the agreement shall expressly transfer ownership of renewable attributes, in addition to ownership of the energy, to the participating utility . . ." Virginia Acts of Assembly, 2013 Session, Chapters 308 and 403.

⁴ At this time, most of the NUG contracts have expiration dates prior to 2025.

⁵ *Application of Virginia Electric and Power Company for a 2011 biennial review of the rates, terms, and conditions for the provision of generation, distribution, and transmission services pursuant to § 56-585.1 A of the Code of Virginia*, Case. No, PUE-2011-00027, Final Order at 22 (Nov. 30, 2011).

1. Total Electric Energy Sold in the Base Year

Pursuant to Va. Code § 56-585.2 A, “[t]otal electric energy sold in the base year” is “total electric energy sold to Virginia jurisdictional retail customers by a participating utility in calendar year 2007, excluding an amount equivalent to the average of the annual percentages of the electric energy that was supplied to such customers from nuclear generating plants for the calendar years 2004 through 2006.” The Company has calculated its total electric energy sold in the base year as follows:

Electric Energy Sold to Retail Customers in 2007 (Virginia Jurisdiction)	64,621,534 MWh
Three-year Average (2004-2006) Nuclear Generation (Virginia Jurisdiction)	<u>21,302,885 MWh</u>
Total Electric Energy Sold in the Base Year (Target Baseline)	<u>43,318,649 MWh</u>

2. RPS Goals for the Years 2011 Through 2025

The Company’s RPS Goals were established and approved in Case No. PUE-2009-00082 by multiplying the total electric energy sold in the base year (described above) by the RPS Goals for the years 2011 through 2025.

Pursuant to Va. Code § 56-585.2 D, the RPS Goals II-IV are based on multiyear averages. The Company’s RPS Goals for each individual year as represented in MWh (or average MWh for a group of years) are as follows:

Year	2011- 2015	2016	2017-2021	2022	2023-24	2025
Percent	4% Average	7%	7% Average	12%	12% Average	15%
Goal	1,732,746	3,032,305	3,032,305	5,198,238	5,198,238	6,497,797

3. Resources to Fulfill the RPS Goals

a. Existing DEV Renewable Energy Generation Facilities Included in Approved RPS Plan:⁶

Existing Renewable Energy Facilities Owned by Dominion Energy Virginia			
Facility	State	Capacity	Fuel
Gaston	NC	220 MW	Hydroelectric
Roanoke Rapids	NC	95 MW	Hydroelectric
Cushaw	VA	2 MW	Hydroelectric
North Anna	VA	1 MW	Hydroelectric
Pittsylvania ⁷	VA	83 MW	Biomass
Subtotal		318 MW	Hydroelectric
Subtotal		83 MW	Biomass
Total		401 MW	

Pursuant to Va. Code § 56-585.2 F, utilities participating in a RPS program are permitted to use a combined 1.5 million green tons of certain tree-based material, as defined in the statute.⁸

In its Final Order approving the Company's RPS Plan, the Commission determined that Dominion Energy Virginia's *pro rata* share of the 1.5 million ton restriction for certain green tree-based materials is 73.929 percent or 1,108,940 tons. Since the Company's Pittsylvania biomass facility is grandfathered as an existing facility under the statute, the Company has not burned any incremental tree-based material subject to the 1.5 million ton limitation in 2014.

b. NUG Renewable Energy Resources

In addition to Company-owned resources, Dominion Energy Virginia has existing renewable energy resources in the form of long-term contracts with various renewable energy NUGs. In its RPS Application, the Company took the position that the NUG contracts for

⁶ Based on the Company's most recent cost of service study for the 12 months ending December 31, 2017, the Virginia Jurisdiction is responsible for approximately 80.39 percent of the Company's electricity demand, and the Company used this allocation factor as the basis for apportioning approximately 80.39 percent of the existing generation MWh for inclusion in its Virginia RPS Plan.

⁷ The Pittsylvania generation facility was placed in cold reserve status 7/24/18.

⁸ Va. Code § 56-585.2 F.

renewable energy include all aspects of that energy, including the renewable attributes. In Case No. PUE-2010-00132, the Commission held that the Company should apply the NUG renewable energy as part of its RPS Plan where the contract was silent on ownership of such renewable attributes. As a result, the Company initially banked the renewable energy generation of 1.9 million MWh produced by qualifying NUGs from 2010-2012. Subsequently, the Company applied approximately 1 million of these MWh toward its 2013 RPS compliance, 0.8 million MWh in 2014, 0.7 million MWh in 2015, and 0.8 million MWh in 2016. The Company will apply 0.3 million MWh of the available renewable energy from NUGs towards its 2017 compliance. Because the Commission did not make a specific determination regarding the ownership of the NUG RECs (which may no longer have any value if the Company has the right to use the renewable attributes through application of the renewable energy through its RPS plan), it is unlikely that the Company will be able to optimize the NUG renewable energy where the Company did not also have rights to the RECs.⁹ Furthermore, through amendments to Va. Code 56-585.2, Power Purchase Agreements executed on or after July 1, 2013 must expressly transfer ownership of renewable attributes to the utility.¹⁰

c. New Renewable Energy Sources

The Company has been working to facilitate development of both onshore and offshore wind projects in Virginia for several years. With respect to onshore wind, the Company noted in its 2018 Integrated Resource Plan, filed May 1, 2018, that it continues to examine onshore wind and has identified three feasible sites for consideration as onshore wind facilities, which could contribute to the Company's renewable energy resource portfolio. These sites are located in the western part of Virginia on mountaintop locations. In addition, Dominion Energy Virginia

⁹ See *infra* n.2.

¹⁰ See Chapter 308 of the 2013 Acts of the Assembly.

continues to pursue offshore wind development in a prudent manner for its customers and for the state's economic development. Offshore wind has the potential to provide a scalable renewable resource if it can be achieved at reasonable cost to customers. To help determine how this can be accomplished the Company is involved in two active projects: (i) the Coastal Virginia Offshore Wind (CVOW) project and (ii) commercial development in the Virginia Wind Energy Area (WEA), both of which are located approximately 27 miles off the coast of Virginia.

The development of offshore wind by the Company is discussed in more detail in Section IV.B. of this Report.

d. Purchase of RECs

After counting the MWh from the existing renewable energy sources, the RPS Plan calls for the Company to fulfill any deficit by purchasing lower cost RECs that fit within the definition of Va. Code § 56-585.2. Though Virginia law makes no distinction regarding types of RECs based on the source of renewable energy, most jurisdictions and markets do make such distinctions, and currently these distinctions impact the valuation of the RECs. The market price of individual RECs is based on a variety of factors, including energy source. The Company expects that it will be able to fully satisfy the RPS Goals III and IV through the Company's existing renewable generation portfolio, new renewable generation facilities and the purchase of lower cost RECs.

e. Banking of Excess Renewable Energy and/or RECs

Under the RPS Plan, the Company will bank any excess amounts of renewable energy and/or RECs for application in future years in which there is a deficit pursuant to Va. Code § 56-585.2 D. Section 56-585.2 D allows a utility to apply renewable energy sales or RECs acquired during the periods covered by any RPS goal that are in excess of the sales requirement for that

goal to the sales requirements for a future RPS goal in the five calendar years after the renewable energy was generated or the renewable energy certificates were created, except that a utility shall be able to apply renewable energy certificates acquired by the utility prior to January 1, 2014.

C. Application of the Renewable Resources to meet the Company’s RPS Plan

The Company’s RPS Plan will permit the Company to meet its RPS Goals.

1. 2017 Renewable Energy Generated & REC Transactions

The Company met and exceeded its 2017 Virginia RPS Plan renewable target of 3,032,305 MWh through implementation of its RPS Plan approved by the Commission as illustrated in Exhibit 2 of this report. The Company achieved compliance by applying 372,782 RECs or Renewable Energy created by Company-owned facilities, 2,384,956 purchased RECs, and 277,567 MWh of renewable energy from NUGs.

Company-generated renewable generation (including NUGs) provided 21 percent of Dominion Energy Virginia’s 2017 RPS Goal, of which some of this was banked and/or optimized.

Pursuant to Va. Code § 56-585.2 H the breakdown of the Company’s efforts to meet its RPS goals for 2017 is as follows:

- § 56-585.2 H 1.a. – A list of all states where the purchased or owned renewable energy was generated, specifying the number of megawatt hours or renewable energy certificates originating from each state.

State	Totals	Applied	Banked	Optimized
PA	2,321,021	1,660,478	660,543	0
MD	40,000	40,000	0	0
NC	386,567	370,491	0	16,076
WV	50,000	50,000	0	0
VA	3,828,197	864,002	2,873,827	90,368
TN	50,334	50,334	0	0

Total	6,676,119	3,035,305	3,534,370	106,444
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- § 56-585.2 H 1.b. – A list of the decades in which the purchased or owned renewable energy generating units were placed in service, specifying the number of megawatt hours or renewable energy certificates originating from those units.

Decade	Totals	Applied	Banked	Optimized
1910s	16,064	0	16,064	0
1920s	102,936	84,000	18,936	0
1930s	484,534	320,403	158,608	5,523
1940s	35,372	16,664	18,708	0
1950s	169,397	161,359	0	8,038
1960s	217,170	209,132	0	8,038
1980s	1,166,143	788,430	377,713	0
1990s	835,795	248,672	502,278	84,845
2000s	50,334	50,334	0	0
2010s	3,598,374	1,156,311	2,442,063	0
Total	6,676,119	3,035,305	3,534,370	106,444

- § 56-585.2 H 1.c. – A list of fuel types used to generate the purchased or owned renewable energy, specifying the number of megawatt hours or renewable energy certificates originating from each fuel type.

Fuel Type	Totals	Applied	Banked	Optimized
Hydro	1,612,069	1,078,112	512,358	21,599
MSW	1,311,137	750,548	560,589	0
Biomass (Wood Waste)	135,179	50,334	0	84,845
Landfill Gas	19,360	0	19,360	0
Thermal	3,598,374	1,156,311	2,442,063	0
Total	6,676,119	3,035,305	3,534,370	106,444

2. 2018 Renewable Energy Generated & REC Transactions

The Company will meet or exceed its 2018 Virginia RPS Plan renewable target of 3,032,305 MWh through implementation of its RPS Plan approved by the Commission which is illustrated in Exhibit 3.

a. Company-Owned Facilities

Total renewable energy production for 2018, through September 30, 2018, from renewable energy facilities owned by the Company and included in the RPS Plan was 433,815 MWh. The Company estimates the total renewable energy production from these resources for calendar year 2018 will be 523,245 MWh.

b. NUGs

The Company has determined that the renewable energy production from contracted NUGs year-to-date through September 30, 2018 is 112,046 MWh. The Company estimates the total qualified renewable energy production from existing contracted NUGs for calendar year 2018 will be 153,039 MWh. Any renewable energy not needed to meet the 2018 Goal will be banked for future use as permitted by statute.

c. 2018 REC Transactions (Purchase for Virginia RPS Compliance/Sales for Optimization)

The Company's REC transactions for 2018, through September 30, 2018, are summarized as follows:

- 82,102 Company-generated higher value RECs optimized
- 1,681,359 lower cost RECs purchased, including replacement RECs

d. Banking of Excess Renewable Energy and/or RECs

The Company began 2018 with banked renewable energy and RECs of 3,534,372 MWh and expects to have a bank of approximately 4,018,566 MWh of renewable energy and RECs toward future RPS targets at year-end 2018.

3. Years 2019 Through 2028 Renewable Plan

Exhibit 1 to this Annual Report outlines the Company's Virginia RPS Plan from 2017 through 2028, including actual totals for 2017 and forecasts for the remaining years. This exhibit has been updated to reflect the assumptions used for the 2018 Integrated Resource Plan. For planning purposes, for years 2019 through 2028, no REC optimization is assumed. Based on current information, the Company forecasts that it will continue to be able to fully satisfy the RPS Goals III and IV through the Company's existing renewable generation portfolio, through the purchase of RECs (including optimization) and new renewable generation where economically feasible.

III. OVERALL DEVELOPMENT OF RENEWABLE ENERGY

As discussed in Section II.B.3.a. above, the Company has over 400 MW of renewable energy capacity that it generates at its hydroelectric and biomass facilities that were included in the approved RPS Plan. The Company also intends to continue prudent development of a number of new renewable energy facilities through the 2023 timeframe in addition to potential future renewable energy resources are discussed in Section IV below.

The Company is actively developing certain additional new renewable generation facilities not included in its approved RPS Plan. Decisions to build new renewable generation are primarily determined based on need and as part of the Company's Integrated Resource Planning process, and subject to Commission issuance of a certificate of public convenience and necessity.

Specifically, the Company continues to evaluate renewable development opportunities, such as 61 MW of renewable energy from its Virginia City Hybrid Energy Center (“VCHCEC”) using biomass co-fired with coal which began in 2013.¹¹ In addition, the Company previously developed 153 MW of renewable energy as a result of the conversion of the Altavista, Hopewell and Southampton Power Stations from burning coal to biomass (primarily waste wood) (“Biomass Conversions”), which entered commercial operation in 2013. The Biomass Conversions use primarily waste wood, within the parameters of the state’s restriction on certain tree-based materials mentioned previously in Section II.B.3.a. The Company treats revenues from the RECs generated by the facilities as credits to customers to offset costs, which flow through the Rider B rate adjustment clause approved under Va. Code § 56-585.1 A 6.

Though not part of the Company’s RPS Plan, the Company is also encouraging customers to support renewable energy generation resources in the region through voluntary participation in several renewable energy options. Dominion Energy’s Rider G Renewable Energy Program, marketed as “Dominion Energy Green Power®”, allows customers to promote renewable energy by purchasing, through the Company, RECs in discrete blocks for a portion or up to 100% of their usage. The Company purchases and retires RECs on behalf of participants. Launched in 2009, the Dominion Energy Green Power® program has 29,971 participants, with approximately 46 percent of the participants choosing to match 100 percent of their monthly energy usage with purchases of RECs as of August 31, 2018. The RECs purchased on behalf of customers participating in this voluntary program are not counted toward the Virginia RPS compliance goals. Rather, this program offers Dominion Energy Virginia customers an

¹¹ VCHCEC is designed to produce up to 120 MW of renewable energy, but the actual amount of renewable energy produced at the facility may vary from year to year, particularly as plant operations continue to develop over the first 8-10 years. In 2013, one percent of the fuel utilized at VCHCEC was biomass. It is anticipated that it will provide approximately 7.5 percent of renewable energy in 2018 and gradually increase that level to ten percent of renewable energy starting by 2023.

additional way to support renewable energy above and beyond Dominion Energy's renewable energy initiatives.

In addition, pursuant to Chapter 771 of the 2011 Virginia Acts of Assembly, the Company has developed a solar distributed generation program consisting of two separate components. On November 28, 2012, the Commission approved the first component, the Solar Partnership Program (formerly the "Community Solar" Program), a demonstration program to study the impact and assess the benefits of distributed solar photovoltaic generation on its distribution system through the construction and operation of Company-owned distributed solar generation installations. Under the Solar Partnership Program, the Company is authorized to construct and operate Company-owned solar facilities on leased rooftops or on the grounds of commercial businesses and public properties throughout its Virginia service area, subject to a capacity and cost cap set in the Commission's 2012 Order approving the Program¹². The Company currently uses the proceeds it receives from selling the RECs obtained from the Solar Partnership Program to offset the costs of the Program.

On March 22, 2013, the Commission approved the Company's Solar Purchase Program, the second component of the Company's Chapter 771 initiatives. The Solar Purchase Program is a demonstration program consisting of a special tariff under which the Company will purchase no more than 3 MW of energy output from customer-owned distributed solar generation installations, offered as an alternative to net energy metering. Participating customers install and own the solar generation system located on their property, but sell the electricity and solar RECs back to Dominion Energy Virginia at a premium rate of 15 cents per kilowatt-hour. Participating customers purchase all of the electricity for their home or business from the Company on their current rate schedule. The Dominion Green Power® program directly supports these solar

¹² Case No. PUE-2011-00117

projects through the purchase and retirement of the renewable energy certificates produced through the Solar Purchase Program.¹³

The customer interest in both of these solar programs has remained steady, and the Company is pleased with the progress being made toward achieving the goals and intent of the programs.

On June 30, 2016, the Commission approved the Company's application for certificates of public convenience and necessity ("CPCN") to build 56 megawatts of large-scale solar facilities that were completed and became operational as scheduled during December 2016. Specifically, the Company was issued certificates of public convenience and necessity for three separate solar projects. The three projects are: **(1) Scott Solar:** This solar project produces about 17 megawatts of electricity and is located on approximately 180 acres of land in Powhatan County. **(2) Whitehouse Solar:** This solar project generates about 20 MW and is located on a 230-acre site in Louisa County; and **(3) Woodland Solar:** This solar project produces approximately 19 MW of electricity and is located on approximately 200 acres located in Isle of Wight County. The RECs produced by these three solar projects will be sold to reduce the costs of the projects for the benefit of customers and will not be used for RPS compliance.¹⁴

The Company is actively developing utility scale solar projects and has increased its engagement of third-party solar developers during the last several years. On July 22, 2015, the Company issued an RFP for new utility-scale solar PV generating facilities. As a result of this RFP the Company signed two PPAs of 20 MW each for solar capacity to serve Dominion Energy

¹³ The Solar Purchase Program pilot period ended on June 30, 2018, and the pilot program has been closed to new participants pursuant to a Final Order issued by the VA SCC on August 23, 2018 in Docket No. PUR-2018-00091.

¹⁴ See *Application of Virginia Electric and Power Company For approval and certification of the proposed 2016 Solar Projects pursuant to §§ 56-580 D and 56-46.1 of the Code of Virginia, and for approval of a rate adjustment clause, designated Rider US-2, under § 56-585.1 A 6 of the Code of Virginia*, PUE-2015-00104, Application at 14-15. (Final Order June 30, 2016).

Virginia's customers. One of these was subsequently terminated by the developer, but the other PPA came online in December 2017. The RECs from the remaining PPA will not be applied for RPS compliance.

In 2017, the Company issued three solicitations that included requests for solar generation. The first solicitation was a request for information ("RFI") for renewable resources to potentially serve customers interested in being served by 100% renewable resources on a continuous hourly basis. The Company received a number of solar proposals through the RFI, but has yet to contract with any of those resources pending a decision from the Commission on the Company's application for a 100% renewable energy tariff in Case No PUR-2017-00157.

The second solicitation was an RFP for the Company's Community Solar Pilot Program seeking small solar resources (2 MW or less) totaling 10 MW. The Company continues to evaluate responses to the RFP and expects to contract with resources from that solicitation now that approval for the program has been received from the Commission. The Community Solar Pilot is described in greater detail below.

The third solicitation was an RFP for approximately 300 MW of solar and onshore wind generation located in Virginia. As a result of this solicitation, on July 24, 2018, Dominion Energy submitted requests to the SCC for approval to construct and operate two large-scale solar facilities in Surry County, Virginia. The Colonial Trail West solar facility is a 142 MW facility expected to be in service by December 2019. The Spring Grove solar facility is a 98 MW facility expected to be in service by October 2020. Scout Development LLC, a subsidiary of Facebook, Inc. has committed to purchase the environmental attributes associated with these proposed new renewable energy facilities under the Company's experimental, voluntary companion tariff designated Schedule RF. Revenue associated with the sale of renewable energy certificates

through Schedule RF will enhance the cost-effectiveness of these solar facilities for Dominion Energy Virginia's customers.

On September 11, 2018 the Virginia State Corporation Commission approved the Company's Virginia Community Solar Pilot Program. The voluntary program will allow customers to purchase energy from solar facilities located in communities throughout Virginia. The Company is currently continuing program development. This includes executing power purchase agreements with participating solar facilities, developing customer communications, and enhancing the systems required to subscribe customers in the pilot program. Legislation enacted by the Virginia General Assembly in 2017 and customer interest in local solar energy generation led to the development of the Community Solar Pilot Program. The legislation is as a result of the Solar Collaborative Workgroup consisting of Dominion Energy, Appalachian Power, the state's electric cooperatives and other interested stakeholders. The goal of the workgroup is to develop consensus on policy changes for renewable energy initiatives.

The Company is also seeking to meet customers' requests for renewable energy options by developing solar projects to serve specific customers. In 2017, the Commission granted CPCNs for the Oceana Solar Facility¹⁵ and the Remington Solar Facility.¹⁶ The Oceana Solar Facility is part of an agreement between Dominion Energy Virginia, the Department of the Navy, and the Commonwealth of Virginia to construct an 18 MW solar facility at Naval Air Station Oceana in Virginia Beach. In exchange for nearly 100 acres that will house the 179,000 solar panels, the Navy will receive an alternative electric feed, which will increase energy resiliency of the base. The Commonwealth purchases the solar output and renewable attributes from the

¹⁵ *Petition of Virginia Electric and Power Company For approval and certification of the proposed Oceana Solar Facility pursuant to §§ 56-580 D and 56-46.1 of the Code of Virginia*, PUE-2016-00079, Aug. 1, 2016.

¹⁶ *Petition of Virginia Electric and Power Company For approval and certification of the proposed Remington Solar Facility pursuant to §§ 56-580 D and 56-46.1 of the Code of Virginia*, PUE-2016-00048, May 4, 2016.

facility under a long-term agreement. The facility became operational on December 1, 2017. The Remington Solar Facility, which became operational on October 1, 2017, was developed as a public-private partnership with the Commonwealth of Virginia and Microsoft. The 20 MW facility was built on approximately 125 acres of land owned by Dominion Energy near its Remington Power Station in Fauquier County, Virginia. The Commonwealth purchases the energy output generated from the facility and Microsoft purchases the renewable energy attributes in support of its sustainability goals. The Company has also announced development of two additional solar projects for the University of Virginia, which will purchase the power from both under long-term contracts. The UVA Hollyfield project, which is a 17 MW project located in King William County, entered commercial operations on September 10, 2018. UVA and its Darden School of Business will purchase the entire output, which represents about 12 percent of UVA's electric demand. The UVA Puller project is a 15 MW project under development in Middlesex County and is expected to be operational by year end 2018. The UVA Puller project is expected to produce power equivalent to about 9 percent of the University's electric demand.

IV. ADVANCES IN RENEWABLE GENERATION TECHNOLOGY

As detailed in its 2018 IRP, the Company continues to monitor and stay abreast of developments with respect to viable commercial and utility-scale emerging generation technologies, including renewable energy and energy storage technologies. Dominion's efforts to advance solar and offshore wind technologies in Virginia are discussed further below:

A. Solar

Continuing a steady trend, solar power has accounted for more than 25 percent of total generating capacity additions in the U.S. in each of the past five years. In 2017, solar power constituted 31 percent of all U.S. capacity additions, with utility-scale solar providing 17 percent.

Solar power capacity additions in 2017 outpaced wind, which made up 25 percent of U.S. capacity additions in 2017 but lagged behind natural gas, which comprised 42 percent of U.S. capacity additions in 2017. Policy certainty provided by the long-term extension of the federal investment tax credit (ITC) and associated Internal Revenue Service (“IRS”) safe harbor guidance is expected to contribute to a robust utility-scale PV market at least through 2023. The ITC phases down over time at the following schedule:

- 30 percent in 2019
- 26 percent in 2020
- 22 percent in 2021
- 10 percent in 2022 and thereafter.

In June 2018, the IRS issued safe harbor guidance confirming that any project qualifying for the ITC during the phase down period will have until year-end 2023 (i.e. four years) to reach commercial operations without having to show a continuous work effort. This safe harbor provision effectively means that the majority of utility-scale solar projects installed through 2023 can continue to take advantage of the 30 percent ITC.¹⁷ In addition to tax incentives, the federal government in recent years has established other initiatives to advance solar capacity in the U.S.. An example is the Solar Market Pathways effort funded by the Department of Energy (DOE) through its Solar Energy Technologies Office, which aims to make solar cost competitive, advance grid-integration approaches, increase demand response, and address key market barriers to facilitate greater adoption of solar energy.¹⁸ As part of this initiative, the Company was awarded funding in late 2014 to lead a three-year effort to develop a sustainable

¹⁷ Lawrence Berkeley National Laboratory, *Utility-Scale Solar: Empirical Trends in Project Technology, Cost, Performance, and PPA Pricing in the United States - 2018 Edition*, September 2018.

¹⁸ <http://solarmarketpathways.org/> accessed October 22, 2018.

utility-administered solar strategy for Virginia. The Company and its team of stakeholders from across the Commonwealth completed this effort late last year with the issuance of its *Virginia Solar Pathways Project* report on December 4, 2017. More information about the Virginia Solar Pathways Project and resulting reports and deliverables can be found at the following website: <https://sites.wp.odu.edu/virginiasolarpathways/>. As discussed in Section III above, the Company has been developing solar energy facilities as well as solar and renewable energy customer programs for several years.

B. Offshore Wind

As part of our ongoing commitment to bring cleaner energy to customers, Dominion Energy Virginia is moving forward on the Mid-Atlantic's first offshore wind project in a federal lease area. In July, 2017, the Company announced that it had signed an agreement and strategic partnership with Ørsted Energy of Denmark, a global leader in offshore wind development, to build two 6 MW turbines off the coast of Virginia Beach. As mentioned previously in Section II.B.3.c., Dominion Energy's Coastal Virginia Offshore Wind ("CVOW") project is the first phase of a plan that could bring more than 2,000 megawatts of wind generated electricity to its Virginia and North Carolina customers.

The CVOW project calls for the development of two 6 megawatt wind turbines on a 2,135 acre site leased by the Virginia Department of Mines, Minerals and Energy ("DMME"). Dominion Energy has an agreement with DMME to build and operate the turbines there.

The project is an important first step toward offshore wind development for Virginia and the United States. It would be only the second offshore wind project in the nation and the first owned by an electric utility company. Along with clean energy, it will provide Dominion Energy

valuable experience in managing offshore wind resources. Specifically, it will provide the critical operational, weather and environmental experience needed for the large scale development.

The CVOW project will build on earlier work carried out under the Virginia Offshore Wind Technology Assessment Project (“VOWTAP”), which started several years ago in an effort to lower the cost of offshore wind and test new technologies. Much of the work done by VOWTAP is still applicable, including geophysical and geotechnical investigation of the sea floor for the turbine sites and export cable route, metocean studies including hurricane and breaking wave studies and seabed mobility studies.

On August 3, 2018 Dominion Energy filed a request with the Virginia State Corporation Commission for project approval.

The two 6 megawatt turbines should be in operation by late 2020 and will lay the ground work for potential large-scale development of the 112,800 acre commercial wind site Dominion Energy has leased from the Bureau of Ocean Energy Management.

As also discussed in Section II.B.3.c., Dominion Energy Virginia won the lease for 112,800 acres of federal land off the coast of Virginia to develop an offshore wind turbine facility capable of generating up to 2,000 MW of electricity, enough to power approximately 500,000 homes. The Department of Interior’s Bureau of Ocean Energy Management (“BOEM”) is the lead federal agency in charge of leasing areas for offshore wind development on the outer continental shelf. Dominion will proceed with the BOEM timetable for development of the commercial wind site while advancing its research project and looking for ways to lower the cost of bringing offshore wind generation to customers.

V. CONCLUSION

As noted in its 2018 Integrated Resource Plan, the Company has a strong commitment to a cost-effective renewable energy program. The Company received Commission approval of its proposed RPS Plan in Case No. PUE-2009-00082, demonstrating that it has a reasonable expectation of achieving 12 percent of its base year electric energy sales from renewable energy sources during calendar year 2022, and 15 percent of its base year electric energy sales from renewable energy sources during calendar year 2025. The Company views its efforts toward its RPS Plan in Virginia in the past year, as well as its overall approach to the development of renewable resources, as successful.

The Company continues to move forward in implementing its cost-effective renewable energy program, as outlined in this Annual Report to the Commission.

EXHIBIT 1
ANNUAL REPORT TO THE SCC ON RENEWABLE ENERGY
DOMINION ENERGY VIRGINIA
RENEWABLE ENERGY PORTFOLIO STANDARD PROGRAM
VIRGINIA GOALS

TOTAL ELECTRIC ENERGY SOLD IN THE BASE YEAR

Total Electric Energy Sold to Virginia Jurisdictional Retail Customers	64,621,534 MWh
Less Three-year Average (2004-2006) Nuclear Generation	<u>21,302,885 MWh</u>
Total Electric Energy Sold in the Base Year	<u>43,318,649 MWh</u>

RENEWABLE PORTFOLIO STANDARD GOALS

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Percent	7%	7%	7%	7%	7%	12%	12%	12%	15%	15%	15%	15%
Goal (MWh)	3,032,305	3,032,305	3,032,305	3,032,305	3,032,305	5,198,238	5,198,238	5,198,238	6,497,797	6,497,797	6,497,797	6,497,797

RENEWABLE PORTFOLIO STANDARD PROGRAM¹

	2017 ²	2018 ²	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Generation Resources (MWh)												
Small Hydro	7,814	3,833	1,714	1,723	1,714	1,714	1,714	1,723	1,714	1,714	1,714	1,723
Large Hydro	386,568	437,993	410,330	411,563	410,330	410,330	410,330	411,563	410,330	410,330	410,330	411,563
Pittsylvania ⁴	84,845	81,418	0	0	0	0	0	0	0	0	0	0
NUGS	150,625	153,039	0	0	0	0	0	0	0	0	0	0
Total	<u>623,852</u>	<u>676,283</u>	<u>412,044</u>	<u>413,286</u>	<u>412,044</u>	<u>412,044</u>	<u>412,044</u>	<u>413,286</u>	<u>412,044</u>	<u>412,044</u>	<u>412,044</u>	<u>413,286</u>
Total Renewable Resources (MWh)	2,572,532 ³	3,516,499	412,044	413,286	412,044	412,044	412,044	413,286	412,044	412,044	412,044	413,286
VA Bank, Balance Beginning of Year	3,394,145	3,534,372	4,018,566	1,398,305	0	0	0	0	0	0	0	0
Target (MWh)	<u>3,032,305</u>	<u>3,032,305</u>	<u>3,032,305</u>	<u>3,032,305</u>	<u>3,032,305</u>	<u>5,198,238</u>	<u>5,198,238</u>	<u>5,198,238</u>	<u>6,497,797</u>	<u>6,497,797</u>	<u>6,497,797</u>	<u>6,497,797</u>
Net Position (MWh)	<u>3,534,372</u>	<u>4,018,566</u>	<u>1,398,305</u>	<u>(1,220,714)</u>	<u>(2,620,261)</u>	<u>(4,786,194)</u>	<u>(4,786,194)</u>	<u>(4,784,952)</u>	<u>(6,085,753)</u>	<u>(6,085,753)</u>	<u>(6,085,753)</u>	<u>(6,084,511)</u>

NOTES: 1 - Based on Strategist forecast used for the 2018 VA IRP and 12/31/2017 Virginia Jurisdictional allocation of DOM load of 80.39%
2 - 2017 is actual and 2018 includes actuals through 9/30/2018 and projections through year-end
3 - Total Renewable Resources includes Company and allowable NUG generated renewable energy, REC purchases and REC Optimization
4 - Pittsylvania was placed in cold reserve status 7/24/18

EXHIBIT 2
DOMINION ENERGY VIRGINIA
RENEWABLE ENERGY PORTFOLIO STANDARD PROGRAM
2017 SUMMARY

TOTAL ELECTRIC ENERGY SOLD IN THE BASE YEAR (MWh)		
Total Electric Energy Sold to Virginia Jurisdictional Retail Customers in 2007		64,621,534
Less Three-year Average Percentages (2004-2006) Nuclear Generation		<u>21,302,885</u>
Total Electric Energy Sold in the Base Year		<u><u>43,318,649</u></u>
RENEWABLE ENERGY PORTFOLIO STANDARD GOALS		
Percent		2017 <u>7%</u>
Goal (MWh)		<u>3,032,305</u>
Company RPS Generation Resources (MWh)		
	Total Energy Generated during 2017	VA Jurisdictional Energy Generated during 2017⁽¹⁾
Company Owned		
Hydro		
Cushaw	6,871	5,523
North Anna	2,850	2,291
Gaston	270,160	217,171
Roanoke Rapids	210,730	169,397
Subtotal Hydro	490,611	394,382
Biomass		
Pittsylvania	105,547	84,845
Subtotal Biomass	105,547	84,845
Total Company Owned	596,158	479,227
NUGS⁽²⁾	187,377	150,625
TOTAL Renewable Energy Generated During 2017	783,535	629,852
Total Company Generated Renewable Energy as a % of goal		21%
Less Company Generated Renewable Energy Credits Optimized		(106,444)
Total Renewable Energy Available for 2017 Compliance		523,408
REC Purchases		2,052,124
NUG Renewable Energy and RECs Previously Banked		3,994,145
Total Renewable Energy and RECs Available for 2017 Compliance		6,569,677
Less Renewable Energy and RECs Banked for Future RPS Application		(3,534,372)
Renewable Energy and RECs Applied for Compliance²		3,035,305
Notes: (1) Based on VA jurisdictional allocation of 80.3861%.		
(2) Because Goal III is a multi-year average, the Company applied 3,035,305 for RPS Compliance for 2017		

EXHIBIT 3
DOMINION ENERGY VIRGINIA
RENEWABLE ENERGY PORTFOLIO STANDARD PROGRAM
2018 SUMMARY

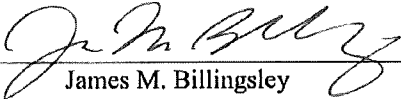
TOTAL ELECTRIC ENERGY SOLD IN THE BASE YEAR (MWh)			
Total Electric Energy Sold to Virginia Jurisdictional Retail Customers in 2007			64,621,534
Less Three-year Average Percentages (2004-2006) Nuclear Generation			<u>21,302,885</u>
Total Electric Energy Sold in the Base Year			<u>43,318,649</u>
RENEWABLE ENERGY PORTFOLIO STANDARD GOALS			
Percent			2018 <u>7%</u>
Goal (MWh)			<u>3,032,305</u>
Company RPS Generation Resources (MWh)			
	Actual through September 30, 2018	Projected through Balance of Year	Estimated Total 2018⁽¹⁾
Company Owned			
Hydro			
Cushaw	684	1,003	1,687
North Anna	1,808	338	2,146
Gaston	191,075	47,094	238,169
Roanoke Rapids	158,830	40,995	199,825
Subtotal Hydro	352,397	89,430	441,827
Biomass			
Pittsylvania	81,418	0	81,418
Subtotal Biomass	81,418	0	81,418
Total Company Owned	433,815	89,430	523,245
NUG Renewable Energy	112,046	40,993	153,039
TOTAL	545,861	130,423	676,284
Company-Owned Renewables less REC-Optimized Resources	433,815 (82,102)	89,430 (9,041)	523,245 (91,143)
Net Company-Owned	351,713	80,389	432,102
REC Purchases	1,681,359	1,250,000	2,931,359
NUG Renewable Energy	112,046	40,993	153,039
TOTAL 2018 Renewable Resources	2,145,118	1,371,382	3,516,500
2017 Bank Carried Forward			3,534,372
Renewable Resources to be Retired (per Target)			3,032,305
Company's Estimated Net Renewable Position for 2018 Year-End			4,018,567

Notes: (1) Based on projected VA jurisdictional allocation of 80.39%.

VERIFICATION

Virginia Electric and Power Company's 2017 RPS Goal Compliance

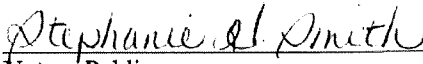
I, James M. Billingsley, Manager – Power Contracts and Origination, in Energy Supply, for Virginia Electric and Power Company d/b/a Dominion Energy Virginia, do solemnly swear that the information and data in the preceding Exhibit 2 (to the 2018 RPS Annual Report) in reference to Dominion Energy Virginia having met its 2017 RPS Goal, are true and correct to the best of my knowledge and belief.


James M. Billingsley

COMMONWEALTH OF VIRGINIA)
)
City of Richmond)

to wit:

The foregoing instrument was sworn to and acknowledged before me this 30th day of October, 2018.


Notary Public

My registration number is 270003 and my commission expires: July 31, 2020.

