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HOUSE BILL NO. 1451

AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by the House Committee on Labor and Commerce)

(Patron Prior to Substitute—Delegate Sullivan)

House Amendments in [ ] - February 10, 2020

A BILL to amend the Code of Virginia by adding a section numbered 56-585.5, relating to electric utility regulation; mandatory renewable energy portfolio standard; deficiency payments; energy storage deployment target.

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 56-585.5 as follows:

§ 56-585.5. Generation of electricity from renewable and zero carbon sources.

A. As used in this section:

"Low-income qualifying projects" means a project that serves a low-income customer.

"Previously developed project site" means any property, including related buffer areas, if any, that has been previously disturbed or developed for non-single-family residential, non-agricultural, or non-silvicultural use, regardless of whether such property currently is being used for any purpose. "Previously developed project site" includes a brownfield as defined in § 10.1-1230 or any parcel that has been previously used (i) for a retail, commercial, or industrial purpose; (ii) as a parking lot; (iii) as the site of a parking lot canopy or structure; (iv) for mining or quarrying; or (v) as a landfill.

"Retail suppliers" shall include a Phase I or Phase II Utility, as those terms are defined in subdivision A 1 of § 56-585.1, as well as other electric energy suppliers as defined by § 56-576.

"Total electric energy" means total electric energy sold to a Virginia jurisdictional retail customer by an incumbent electric utility or other retail supplier of electric energy in the previous calendar year, excluding an amount equivalent to the annual percentages of the electric energy that was [~~suppled~~ supplied] to such customer from nuclear generating plants located within the Commonwealth in the previous calendar year, provided such nuclear units were operating by July 1, 2020.

"Zero-carbon electricity" means electricity generated by any generating unit that does not emit carbon dioxide as a byproduct of combusting fuel to generate electricity.

B. 1. By December 31, 2028, each Phase I and II Utility shall retire all biomass-fired electric generating units that do not co-fire with coal.

2. By December 31, [~~2050~~ 2045] , each Phase I and II Utility shall retire all other electric generating units located in the Commonwealth that emit carbon as a byproduct of combusting fuel to generate electricity.

3. A Phase I or Phase II Utility may petition the Commission for relief from the requirements of this subsection on the basis that the requirement would threaten the reliability or security of electric service to customers. The Commission shall consider in-state and regional transmission entity resources and shall evaluate the reliability of each proposed retirement on a case-by-case basis in ruling upon any such petition.

C. Each retail supplier of electric energy in the Commonwealth shall participate in a renewable energy portfolio standard program ("RPS Program") that establishes annual goals for the sale of renewable energy to retail customers. To comply with the RPS program, every retail supplier of electricity shall procure Renewable Energy Certificates ("RECs") originating from renewable energy standard eligible sources ("RPS eligible sources"). For purposes of complying with the RPS Program, from 2021 to 2024, a retail supplier may uses RECs from (i) renewable thermal energy facilities, (ii) renewable thermal energy equivalent facilities, (iii) biomass-fired facilities that are outside the Commonwealth, or (iv) biomass-fired facilities operating in the Commonwealth as of January 1, 2020, that supply 10 percent or more of their annual net electrical generation to the electric grid or more than 15 percent of their annual total useful energy to any entity other than the manufacturing facility to which the generating source is interconnected. From compliance year 2025 and all years after, retail suppliers may only use RECs from RPS eligible sources for compliance with the RPS Program.

In order to qualify as RPS eligible sources for retail suppliers, such sources must be (i) electric-generating resources that generate electric energy derived from solar, wind, or falling water, provided such resources are located in the Commonwealth or are physically located within the PJM Interconnection, LLC ("PJM") region; (ii) waste-to-energy or landfill gas-fired generating resources located in the Commonwealth and in operation as of January 1, 2020, provided such resources do not use forest or woody biomass as fuel; (iii) non-utility-owned resources from falling water that (a) are less than 654 megawatts, (b) began commercial operation after December 31, 1979, or (c) added incremental generation representing greater than 50 percent of the original nameplate capacity after December 31, 1979; or (iv) are biomass-fired facilities in operation in the Commonwealth in operation

as of January 1, 2020, that supply no more than 10 percent of their annual net electrical generation to the electric grid or no more than 15 percent of their annual total useful energy to any entity other than the manufacturing facility to which the generating source is interconnected. The total amount of renewable energy credits that may be sold by any RPS eligible source using biomass in any calendar year shall be no more than the number of megawatt hours of electricity produced by that facility in calendar year 2019. Any biomass-fired facility qualifying as an RPS eligible source shall cease to qualify as an RPS eligible source if it undertakes any maintenance, refurbishment, or other type of project that increases its annual output by more than five percent. In order to comply with the RPS program, each Phase I and Phase II Utility may use and retire the environmental attributes associated with any existing owned or contracted solar, wind, or falling water electric generating resources in operation, or proposed for operation, in the Commonwealth or physically located within the PJM region, with such resource qualifying as a Commonwealth-located resource for purposes of this subdivision, as of January 1, 2020, provided such renewable attributes are verified as RECs consistent with the PJM-EIS Generation Attribute Tracking System.

The RPS Program requirements shall be a percentage of the total electric energy sold in the previous calendar year and shall be implemented in accordance with the following schedule:

Phase I Utilities and Other Retail Suppliers Operating in the Service Territory of a Phase I [~~Utiltiy~~ Utility]		*Phase II Utilities and Other Retail Suppliers Operating in the Service Territory of a Phase II Utility*	
Year	*RPS Program Requirement*	*Year*	*RPS Program Requirement*
2021	*6%*	*2021*	*14%*
2022	*7%*	*2022*	*17%*
2023	*8%*	*2023*	*20%*
2024	*10%*	*2024*	*23%*
2025	*14%*	*2025*	*26%*
2026	*17%*	*2026*	*29%*
2027	*20%*	*2027*	*32%*
2028	*24%*	*2028*	*35%*
2029	*27%*	*2029*	*38%*
2030	*30%*	*2030*	*41%*
2031	*33%*	*2031*	*45%*
2032	*36%*	*2032*	*49%*
2033	*39%*	*2033*	*52%*
2034	*42%*	*2034*	*55%*
2035	*45%*	*2035*	*59%*
2036	*53%*	*2036*	*63%*
2037	*53%*	*2037*	*67%*
2038	*57%*	*2038*	*71%*
2039	*61%*	*2039*	*75%*
2040	*65%*	*2040*	*79%*
2041	*68%*	*2041*	*83%*
2042	*71%*	*2042*	*87%*
2043	*74%*	*2043*	*91%*
2044	*100%*	*2044*	*95%*
2045	*80%*	*2045 and thereafter*	*100%*
2046	*84%*		
2047	*88%*		
2048	*92%*		
2049	*96%*		
2050 and thereafter	*100%*		

Retail suppliers, except for a Phase I Utility, shall meet one percent of the RPS Program requirement in any given compliance year with solar, wind, or anaerobic digestion resources of one megawatt or less located in the Commonwealth, with no less than 25 percent of such one percent composed of low-income qualifying projects.

Beginning with the 2025 compliance year and thereafter, at least 75 percent of all RECs used by a retail supplier, except for a Phase I Utility, in a compliance period shall come from resources located in Virginia.

A retail supplier of electricity may apply renewable energy sales achieved or RECs acquired in excess of the sales requirement for that RPS Program to the sales requirements for future RPS Program requirements in the year in which it was generated and the five calendar years after the renewable energy was generated or the RECs were created. To the extent a retail supplier of electricity is a Phase I or Phase II Utility that procures RECs for RPS Program compliance from resources the utility does not own, the utility shall be entitled to recover the costs of such certificates, at its election pursuant to

§ 56-249.6 or subdivision A 5 d of § 56-585.1. A retail supplier of electricity other than a Phase I or Phase II Utility may only use RECs from facilities that produce electricity via falling water equal to or less than 2.9 percent of their total electric energy sold in each year from 2021 through 2035, equal to or less than 3.5 percent of their total electric energy sold in each year from 2036 through 2042, and equal to or less than four percent of their total electric energy sold in each year from 2043 through 2050, and shall not exceed these amounts to comply with the RPS Program requirements. The limitations in this subsection shall apply only to facilities that produce electricity via falling water that is less than 65 megawatts, or that began commercial operation or added incremental generation representing the majority of nameplate capacity after December 31, 1979.

D. Notwithstanding the provisions of subsection C or D of § 56-585.1 or any other provision of law, each Phase I or Phase II Utility shall procure zero-carbon electricity generating capacity as set forth in this subdivision and energy storage resources as set forth in subdivision E. To the extent a Phase I or Phase II Utility constructs or acquires new zero-carbon generating facilities or energy storage resources, the utility shall recover the costs of such facilities, at the utility's election, either through its rates for generation and distribution services or through a rate adjustment clause pursuant to subdivision A 6 of § 56-585.1. All costs not sought for recovery through a rate adjustment clause pursuant to subdivision A 6 of § 56-585.1 associated with generating facilities provided by sunlight or onshore or offshore wind are also eligible to be applied by the utility as a customer credit reinvestment offset as provided in subdivision A 8 of § 56-585.1. Costs associated with the purchase of energy, capacity, or environmental attributes from facilities owned by persons other than the utility required by the subsection shall be recovered by the utility either through its rates for generation and distribution services or pursuant to § 56-249.6.

1. Each Phase I Utility shall construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental attributes of 600 megawatts of generating capacity using energy derived from sunlight or onshore wind.

a. By December 31, 2023, each Phase I Utility shall construct or acquire at least 200 megawatts of generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and approximately 35 percent of such generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate, being from construction or acquisition by such Phase I Utility.

b. By December 31, 2027, each Phase I Utility shall construct or acquire at least 200 megawatts of additional generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and approximately 35 percent of such generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate, being from construction or acquisition by such Phase I Utility.

c. By December 31, 2030, each Phase I Utility shall construct or acquire at least 200 megawatts of additional generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and approximately 35 percent of such generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate, being from construction or acquisition by such Phase I Utility.

d. Nothing in this subdivision 1 shall prohibit such Phase I Utility from construction or acquiring or entering into agreements to purchase the energy, capacity, and environmental attributes of more than 600 megawatts of generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, provided the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1.

2. By December 31, 2035, each Phase II Utility shall construct or acquire, or enter into agreements to purchase the energy, capacity, and environmental attributes of, 16,100 megawatts of generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, which shall include 1,100 megawatts of solar generation of a nameplate capacity not to exceed three megawatts per individual project. At least 200 megawatts of the 16,100 megawatts shall be placed on previously developed project sites.

a. By December 31, 2024, each Phase II Utility shall construct or acquire at least 3,000 megawatts of generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and approximately 35 percent of such generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate, being from construction or acquisition by such Phase II Utility.

b. By December 31, 2027, each Phase II Utility shall construct or acquire at least 3,000 megawatts

of additional generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and approximately 35 percent of such generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate, being from construction or acquisition by such Phase II Utility.

c. By December 31, 2030, each Phase II Utility shall construct or acquire at least 4,000 megawatts of additional generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and approximately 35 percent of such generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate, being from construction or acquisition by such Phase II Utility.

d. By December 31, 2035, each Phase II Utility shall construct or acquire at least 7,300 megawatts of additional generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and approximately 35 percent of such generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate, being from construction or acquisition by such Phase II Utility.

e. Nothing in this subdivision 2 shall prohibit such Phase II Utility from construction or acquiring, or entering into agreements to purchase the energy, capacity, and environmental attributes of more than 16,100 megawatts of generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, provided the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1.

3. Nothing in this section shall prohibit a utility from petitioning the Commission to construct or acquire zero-carbon electricity or from entering into contracts to procure the energy, capacity, and environmental attributes of zero-carbon electricity generating resources in excess of the requirements in subsection B. The Commission shall determine whether to approve such petitions on a stand-alone basis pursuant to §§ 56-580 and 56-585.1, provided that the Commission's review shall also consider whether the proposed generating capacity (i) is necessary to meet the utility's native load, (ii) is likely to lower customer fuel costs, (iii) will provide economic development opportunities in the Commonwealth, and (iv) serves a need that cannot be more affordably met with demand-side or energy storage resources.

Each Phase I and Phase II Utility shall, at least once every year, conduct a request for proposals for new solar and wind resources. Such requests shall quantify and describe the utility's need for energy, capacity, or renewable energy certificates. The requests for proposals shall be publicly announced and made available for public review on the utility's website at least 45 days prior to the closing of such request for proposals. The requests for proposals shall provide, at a minimum, the following information: (i) the size, type, and timing of resources for which the utility anticipates contracting; (ii) any minimum thresholds that must be met by respondents; (iii) major assumptions to be used by the utility in the bid evaluation process, including environmental emission standards; (iv) detailed instructions for preparing bids so that bids can be evaluated on a consistent basis; (v) the preferred general location of additional capacity; and (vi) specific information concerning the factors involved in determining the price and nonprice criteria used for selecting winning bids. A utility may evaluate responses to requests for proposals based on any criteria that it deems reasonable but shall at a minimum consider the following in its selection process: (a) the status of a particular project's development; (b) the age of existing generation facilities; (c) the demonstrated financial viability of a project and the developer; (d) a developer's prior experience in the field; (e) the location and effect on the transmission grid of a generation facility; (f) benefits to the Commonwealth that are associated with particular projects, including regional economic development and the use of goods and services from Virginia businesses; and (g) the environmental impacts of particular resources, including impacts on air quality within the Commonwealth and the carbon intensity of the utility's generation portfolio.

4. In connection with the requirements of this subsection, each Phase I and Phase II Utility shall, commencing in 2020 and concluding in 2030, submit annually a plan and petition for approval for the development of new solar and onshore wind generation capacity. Such plan shall reflect, in the aggregate and over its duration, the requirements of subdivision D concerning the allocation percentages for construction or purchase of such capacity. Such petition may contain a request for approval to construct such facilities pursuant to subsection D of § 56-580 and a request for approval or update of a rate adjustment clause pursuant to subdivision A 6 of § 56-585.1 to recover the costs of such facilities. Such plan shall also include the utility's plan to meet the energy storage project targets of subdivision E, including the goal of installing at least 10 percent of such energy storage projects behind the meter. Notwithstanding any other provision of this title, the Commission's final order regarding any such petition and associated requests shall be entered by the Commission not more than six months after the date of the filing of such petition.

5. If, in any year, a retail supplier of electricity is unable to meet the compliance obligation of the

RPS Program requirements or if the cost of RECs necessary to comply with RPS Program requirements exceeds $45 per megawatt hour, such supplier shall be obligated to make a deficiency payment equal to $45 for each megawatt-hour shortfall for the year of noncompliance, except that the deficiency payment for any shortfall in procuring RECs for solar, wind, or anaerobic digesters located in the Commonwealth shall be $75 per megawatt hour for resources one megawatt and lower. The amount of any deficiency payment shall increase by one percent annually after 2021. A Phase I or Phase II Utility shall be entitled to recover the costs of such payments as a cost of compliance with the requirements of this subsection pursuant to subdivision A 5 d of § 56-585.1. All proceeds from the deficiency payments shall be deposited into an interest-bearing account administered by the Department of Mines, Minerals and Energy. In administering this account, the Department of Mines, Minerals and Energy shall manage the account as follows: (i) 50 percent of total revenue shall be directed to job training programs in historically economically disadvantaged communities; (ii) 16 percent of total revenue shall be directed to energy efficiency measures for public facilities; (iii) 30 percent of total revenue shall be directed to renewable energy programs located in historically economically disadvantaged communities; and (iv) four percent of total revenue shall be directed to administrative costs.

E. To enhance reliability and performance of the utility's generation and distribution system, each Phase I and Phase II Utility shall construct or acquire new, utility-owned energy storage resources.

1. By December 31, 2035, each Phase I Utility shall construct or acquire 400 megawatts of energy storage capacity. Nothing shall prohibit a Phase I Utility from constructing or acquiring more than 400 megawatts of energy storage, provided the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1.

2. By December 31, 2035, each Phase II Utility shall construct or acquire 2,700 megawatts of energy storage capacity. Nothing shall prohibit a Phase II Utility from constructing or acquiring more than 2,700 megawatts of energy storage, provided the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1.

3. No single energy storage project shall exceed 500 megawatts in size, except that a Phase II Utility may procure a single energy storage project up to 800 megawatts.

4. All energy storage projects procured pursuant to this subsection shall meet the competitive procurement protocols established in subdivision D 3.

5. Approximately 35 percent of the energy storage projects shall be owned and operated by third parties. By January 1, 2021, the Commission shall adopt regulations to achieve the deployment of energy storage for the Commonwealth required in subdivisions E 1 and 2, including regulations that set interim targets and update existing utility planning and procurement rules. The regulations shall include programs and mechanisms to deploy energy storage, including competitive solicitations, behind-the-meter incentives, non-wires alternatives programs, and peak demand reduction programs.

F. Nothing in this section shall apply to any entity organized under Chapter 9.1 (§ 56-231.15 et seq.) of Title 56.

G. The Commission shall adopt such rules and regulations as may be necessary to implement the provisions of this section, including a requirement that participants verify whether the RPS Program requirements are met in accordance with this section.