VIRGINIA ACTS OF ASSEMBLY — CHAPTER

An Act to amend and reenact §§ 56-580 and 56-585.5 of the Code of Virginia and to amend the Code of Virginia by adding in Title 45.2 a chapter numbered 22, consisting of a section numbered 45.2-2200, relating to electric utilities; energy storage resources; Department of Energy to develop model ordinances; work groups; reports.

[H 895]

Approved

Be it enacted by the General Assembly of Virginia:

1. That §§ 56-580 and 56-585.5 of the Code of Virginia are amended and reenacted and that the Code of Virginia is amended by adding in Title 45.2 a chapter numbered 22, consisting of a section numbered 45.2-2200, as follows:

CHAPTER 22.

ENERGY STORAGE.

§ 45.2-2200. Model ordinances for energy storage resources.

A. By December 1, 2026, the Department, in consultation with the Department of Environmental Quality and the Department of Fire Programs, shall develop model ordinances suggested for use by localities in their regulation of energy storage projects, as described in subsection E of § 56-585.5, and shall update such model ordinances every three years thereafter. Such model ordinances shall include (i) minimum safety standards in accordance with the most recently published edition of the National Fire Protection Association 855 Standard for the Installation of Stationary Energy Storage Systems, (ii) consideration of the varying characteristics of different energy storage technologies, and (iii) any other factors the Department deems relevant to support the development of energy storage in the Commonwealth. In developing such model ordinances, the Department shall develop and publish a guideline document that advises localities on best practices for reviewing energy storage projects.

B. The Department shall convene a work group to advise the Department on the development or update of model ordinances conducted pursuant to subsection A. Such work group shall include representatives from the Department of Environmental Quality, the Department of Fire Programs, an association representing localities, a nonprofit agricultural advocacy organization, an environmental organization, trade associations related to solar, energy storage, and clean energy, storage project engineers, electric utilities, and any other stakeholders deemed relevant by the Department. The Department shall make available online any resources or studies developed by the work group and shall develop and maintain online resources to educate localities, developers, contractors, residents, businesses, researchers, and other stakeholders about energy storage.

§ 56-580. Transmission and distribution of electric energy.

A. Subject to the provisions of § 56-585.1, the Commission shall continue to regulate pursuant to this title the distribution of retail electric energy to retail customers in the Commonwealth and, to the extent not prohibited by federal law, the transmission of electric energy in the Commonwealth.

B. The Commission shall continue to regulate, to the extent not prohibited by federal law, the reliability, quality and maintenance by transmitters and distributors of their transmission and retail distribution systems.

C. The Commission shall develop codes of conduct governing the conduct of incumbent electric utilities and affiliates thereof when any such affiliates provide, or control any entity that provides, generation, distribution, or transmission services, to the extent necessary to prevent impairment of competition. Nothing in this chapter shall prevent an incumbent electric utility from offering metering options to its customers.

D. The Commission shall permit the construction and operation of ~~electrical~~ *electric* generating facilities *and energy storage resource facilities* in ~~Virginia~~ *the Commonwealth* upon a finding that such generating facility and associated facilities *or such energy storage resource facility and associated facilities* (i) will have no material adverse effect upon reliability of electric service provided by any regulated public utility, (ii) are required by the public convenience and necessity, if a petition for such permit is filed after July 1, 2007, and if they are to be constructed and operated by any regulated utility whose rates are regulated pursuant to § 56-585.1, and (iii) are not otherwise contrary to the public interest. In review of a petition for a certificate to construct and operate a generating facility described in this subsection, the Commission shall give consideration to the effect of the facility and associated facilities on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact as provided in § 56-46.1, unless exempt as a small renewable energy project for which the Department of Environmental Quality has issued a permit by rule pursuant to Article 5 (§ 10.1-1197.5 et seq.) of Chapter 11.1 of Title 10.1. In order to avoid duplication of governmental activities, any valid permit or approval required for an electric

generating ~~plant~~ *facility* and associated facilities*, or for an energy storage resource facility and associated facilities,* issued or granted by a federal, state or local governmental entity charged by law with responsibility for issuing permits or approvals regulating environmental impact and mitigation of adverse environmental impact or for other specific public interest issues such as building codes, transportation plans, and public safety, whether such permit or approval is prior to or after the Commission's decision, shall be deemed to satisfy the requirements of this section with respect to all matters that (i) are governed by the permit or approval or (ii) are within the authority of, and were considered by, the governmental entity in issuing such permit or approval, and the Commission shall impose no additional conditions with respect to such matters. Nothing in this section shall affect the ability of the Commission to keep the record of a case open. Nothing in this section shall affect any right to appeal such permits or approvals in accordance with applicable law. In the case of a proposed facility located in a region that was designated as of July 1, 2001, as serious nonattainment for the one-hour ozone standard as set forth in the federal Clean Air Act, the Commission shall not issue a decision approving such proposed facility that is conditioned upon issuance of any environmental permit or approval. The Commission shall complete any proceeding under this section, or under any provision of the Utility Facilities Act (§ 56-265.1 et seq.), involving an application for a certificate, permit, or approval required for the construction or operation by a public utility of a small renewable energy project as defined in § 10.1-1197.5, within nine months following the utility's submission of a complete application therefore. Small renewable energy projects as defined in § 10.1-1197.5 are in the public interest and in determining whether to approve such project, the Commission shall liberally construe the provisions of this title.

E. Nothing in this section shall impair the distribution service territorial rights of incumbent electric utilities, and incumbent electric utilities shall continue to provide distribution services within their exclusive service territories as established by the Commission. Subject to the provisions of § 56-585.1, the Commission shall continue to exercise its existing authority over the provision of electric distribution services to retail customers in the Commonwealth including, but not limited to, the authority contained in Chapters 10 (§ 56-232 et seq.) and 10.1 (§ 56-265.1 et seq.) of this title.

F. Nothing in this chapter shall impair the exclusive territorial rights of an electric utility owned or operated by a municipality as of July 1, 1999, or by an authority created by a governmental unit exempt from the referendum requirement of § 15.2-5403. Nor shall any provision of this chapter apply to any such electric utility unless (i) that municipality or that authority created by a governmental unit exempt from the referendum requirement of § 15.2-5403 elects to have this chapter apply to that utility or (ii) that utility, directly or indirectly, sells, offers to sell or seeks to sell electric energy to any retail customer eligible to purchase electric energy from any supplier in accordance with § 56-577 if that retail customer is outside the geographic area that was served by such municipality as of July 1, 1999, except (a) any area within the municipality that was served by an incumbent public utility as of that date but was thereafter served by an electric utility owned or operated by a municipality or by an authority created by a governmental unit exempt from the referendum requirement of § 15.2-5403 pursuant to the terms of a franchise agreement between the municipality and the incumbent public utility, or (b) where the geographic area served by an electric utility owned or operated by a municipality is changed pursuant to mutual agreement between the municipality and the affected incumbent public utility in accordance with § 56-265.4:1. If an electric utility owned or operated by a municipality as of July 1, 1999, or by an authority created by a governmental unit exempt from the referendum requirement of § 15.2-5403 is made subject to the provisions of this chapter pursuant to clause (i) or (ii) of this subsection, then in such event the provisions of this chapter applicable to incumbent electric utilities shall also apply to any such utility, mutatis mutandis.

G. The applicability of all provisions of this chapter except § 56-594 to any investor-owned incumbent electric utility supplying electric service to retail customers on January 1, 2003, whose service territory assigned to it by the Commission is located entirely within Dickenson, Lee, Russell, Scott, and Wise Counties shall be suspended effective July 1, 2003, so long as such utility does not provide retail electric services in any other service territory in any jurisdiction to customers who have the right to receive retail electric energy from another supplier. During any such suspension period, the utility's rates shall be (i) its capped rates established pursuant to § 56-582 for the duration of the capped rate period established thereunder, and (ii) determined thereafter by the Commission on the basis of such utility's prudently incurred costs pursuant to Chapter 10 (§ 56-232 et seq.) of this title.

H. The expiration date of any certificates granted by the Commission pursuant to subsection D, for which applications were filed with the Commission prior to July 1, 2002, shall be extended for an additional two years from the expiration date that otherwise would apply.

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

A. As used in this section:

"Accelerated renewable energy buyer" means a commercial or industrial customer of a Phase I or Phase II Utility, irrespective of generation supplier, with an aggregate load over 25 megawatts in the prior calendar year, that enters into arrangements pursuant to subsection G, as certified by the Commission.

"Aggregate load" means the combined electrical load associated with selected accounts of an accelerated

renewable energy buyer with the same legal entity name as, or in the names of affiliated entities that control, are controlled by, or are under common control of, such legal entity or are the names of affiliated entities under a common parent.

"Control" has the same meaning as provided in § 56-585.1:11.

"Elementary or secondary" has the same meaning as provided in § 22.1-1.

"Falling water" means hydroelectric resources, including run-of-river generation from a combined pumped-storage and run-of-river facility. "Falling water" does not include electricity generated from pumped-storage facilities.

"Low-income qualifying projects" means a project that provides a minimum of 50 percent of the respective electric output to low-income utility customers as that term is defined in § 56-576.

"Phase I Utility" has the same meaning as provided in subdivision A 1 of § 56-585.1.

"Phase II Utility" has the same meaning as provided in subdivision A 1 of § 56-585.1.

"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, nonagricultural, or nonsilvicultural 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, which is any lands affected by coal mining that took place before August 3, 1977, or any lands upon which extraction activities have been permitted by the Department of Energy under Title 45.2; (v) for quarrying; or (vi) as a landfill.

"Total electric energy" means total electric energy sold to retail customers in the Commonwealth service territory of a Phase I or Phase II Utility, other than accelerated renewable energy buyers, by the 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 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, or from any zero-carbon electric generating facilities not otherwise RPS eligible sources and placed into service in the Commonwealth after July 1, 2030.

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

B. 1. By December 31, 2024, except for any coal-fired electric generating units (i) jointly owned with a cooperative utility or (ii) owned and operated by a Phase II Utility located in the coalfield region of the Commonwealth that co-fires with biomass, any Phase I and Phase II Utility shall retire all generating units principally fueled by oil with a rated capacity in excess of 500 megawatts and all coal-fired electric generating units operating in the Commonwealth.

2. By December 31, 2045, except for biomass-fired electric generating units that do not co-fire with coal, each Phase I and II Utility shall retire all other electric generating units located in the Commonwealth that emit carbon as a by-product 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 Phase I and Phase II Utility shall participate in a renewable energy portfolio standard program (RPS Program) that establishes annual goals for the sale of renewable energy to all retail customers in the utility's service territory, other than accelerated renewable energy buyers pursuant to subsection G, regardless of whether such customers purchase electric supply service from the utility or from suppliers other than the utility. To comply with the RPS Program, each Phase I and Phase II Utility shall procure and retire 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 Phase I and Phase II Utility may use RECs from any renewable energy facility, as defined in § 56-576, provided that such facilities are located in the Commonwealth or are physically located within the PJM Interconnection, LLC (PJM) region. However, at no time during this period or thereafter may any Phase I or Phase II Utility use RECs from (i) renewable thermal energy, (ii) renewable thermal energy equivalent, or (iii) biomass-fired facilities that are outside the Commonwealth. From compliance year 2025 and all years after, each Phase I and Phase II Utility may only use RECs from RPS eligible sources for compliance with the RPS Program.

In order to qualify as RPS eligible sources, such sources must be (a) electric-generating resources that generate electric energy derived from solar or wind located in the Commonwealth or off the Commonwealth's Atlantic shoreline or in federal waters and interconnected directly into the Commonwealth or physically located within the PJM region; (b) falling water resources located in the Commonwealth or physically located within the PJM region that were in operation as of January 1, 2020, that are owned by a Phase I or Phase II Utility or for which a Phase I or Phase II Utility has entered into a contract prior to January 1, 2020, to purchase the energy, capacity, and renewable attributes of such falling water resources; (c) non-utility-owned resources from falling water that (1) are less than 65 megawatts, (2) began commercial operation after

December 31, 1979, or (3) added incremental generation representing greater than 50 percent of the original nameplate capacity after December 31, 1979, provided that such resources are located in the Commonwealth or are physically located within the PJM region; (d) waste-to-energy or landfill gas-fired generating resources located in the Commonwealth and in operation as of January 1, 2020, provided that such resources do not use waste heat from fossil fuel combustion; (e) geothermal heating and cooling systems located in the Commonwealth; (f) geothermal electric generating resources located in the Commonwealth or physically located within the PJM region; or (g) biomass-fired facilities in operation in the Commonwealth and in operation as of January 1, 2023, that (1) 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 and are fueled by forest-product manufacturing residuals, including pulping liquor, bark, paper recycling residuals, biowastes, or biomass, as described in subdivisions A 1, 2, and 4 of § 10.1-1308.1, provided that biomass as described in subdivision A 1 of § 10.1-1308.1 results from harvesting in accordance with best management practices for the sustainable harvesting of biomass developed and enforced by the State Forester pursuant to § 10.1-1105, or (2) are owned by a Phase I or Phase II Utility, have less than 52 megawatts capacity, and are fueled by forest-product manufacturing residuals, biowastes, or biomass, as described in subdivisions A 1, 2, and 4 of § 10.1-1308.1, provided that biomass as described in subdivision A 1 of § 10.1-1308.1 results from harvesting in accordance with best management practices for the sustainable harvesting of biomass developed and enforced by the State Forester pursuant to § 10.1-1105. Regardless of any future maintenance, expansion, or refurbishment activities, the total amount of RECs that may be sold by any RPS eligible source using biomass in any year shall be no more than the number of megawatt hours of electricity produced by that facility in 2022; however, in no year may any RPS eligible source using biomass sell RECs in excess of the actual megawatt-hours of electricity generated by such facility that year. 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, falling water, or biomass electric generating resources in operation, or proposed for operation, in the Commonwealth or solar, wind, or falling water resources physically located within the PJM region, with such resource qualifying as a Commonwealth-located resource for purposes of this subsection, as of January 1, 2020, provided that such renewable attributes are verified as RECs consistent with the PJM-EIS Generation Attribute Tracking System.

1. 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		Phase II Utilities	
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	77%	2044	95%
2045	80%	2045 and thereafter	100%
2046	84%		
2047	88%		
2048	92%		
2049	96%		
2050 and	100%		

thereafter

2. A Phase II Utility shall meet one percent of the RPS Program requirements in any given compliance year with solar, wind, or anaerobic digestion resources of one megawatt or less located in the Commonwealth, with not more than 3,000 kilowatts at any single location or at contiguous locations owned by the same entity or affiliated entities and, to the extent that low-income qualifying projects are available, then no less than 25 percent of such one percent shall be composed of low-income qualifying projects. To the extent that low-income qualifying projects are not available and projects located on or adjacent to public elementary or secondary schools are available, the remainder of no less than 25 percent of such one percent shall be composed of projects located on or adjacent to public elementary or secondary schools. A project located on or adjacent to a public elementary or secondary school shall have a contractual relationship with such school in order to qualify for the provisions of this section.

3. Beginning with the 2025 compliance year and thereafter, at least 75 percent of all RECs used by a Phase II Utility in a compliance period shall come from RPS eligible resources located in the Commonwealth.

4. Any Phase I or Phase II Utility may apply renewable energy sales achieved or RECs acquired in excess of the sales requirement for that RPS Program to the sales requirements for 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 that a Phase I or Phase II Utility 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.

5. Energy from a geothermal heating and cooling system is eligible for inclusion in meeting the requirements of the RPS Program. RECs from a geothermal heating and cooling system are created based on the amount of energy, converted from BTUs to kilowatt-hours, that is generated by a geothermal heating and cooling system for space heating and cooling or water heating. The Commission shall determine the form and manner in which such RECs are verified.

D. Each Phase I or Phase II Utility shall petition the Commission for necessary approvals to procure zero-carbon electricity generating capacity as set forth in this subsection and energy storage resources as set forth in subsection E. To the extent that a Phase I or Phase II Utility constructs or acquires new zero-carbon generating facilities or energy storage resources, the utility shall petition the Commission for the recovery of 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 the persons other than the utility required by this 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 petition the Commission for necessary approvals to 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 petition the Commission for necessary approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental attributes of at least 200 megawatts of generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and 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 petition the Commission for necessary approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental attributes of at least 200 megawatts of additional generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and 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 petition the Commission for necessary approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental attributes of at least 200 megawatts of additional generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and 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 constructing, 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 petition the Commission for necessary approvals to (i) construct, 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 and 35 percent of such generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes from solar facilities owned by persons other than a utility, including utility affiliates and deregulated affiliates and (ii) pursuant to § 56-585.1:11, construct or purchase one or more offshore wind generation facilities located off the Commonwealth's Atlantic shoreline or in federal waters and interconnected directly into the Commonwealth with an aggregate capacity of up to 5,200 megawatts. 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 petition the Commission for necessary approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental attributes of at least 3,000 megawatts of generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and 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 petition the Commission for necessary approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental attributes of at least 3,000 megawatts of additional generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and 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 petition the Commission for necessary approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental attributes of at least 4,000 megawatts of additional generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and 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 petition the Commission for necessary approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental attributes of at least 6,100 megawatts of additional generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, and 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 constructing, 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, *and energy storage* 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: (a) the size, type, and timing of resources for which the utility anticipates contracting; (b) any minimum

thresholds that must be met by respondents; (c) major assumptions to be used by the utility in the bid evaluation process, including environmental emission standards; (d) detailed instructions for preparing bids so that bids can be evaluated on a consistent basis; (e) the preferred general location of additional capacity; and (f) specific information concerning the factors involved in determining the price and non-price 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: (1) the status of a particular project's development; (2) the age of existing generation facilities; (3) the demonstrated financial viability of a project and the developer; (4) a developer's prior experience in the field; (5) the location and effect on the transmission grid of a generation facility; (6) 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 (7) the environmental impacts of particular resources, including impacts on air quality within the Commonwealth and the carbon intensity of the utility's generation portfolio.

The Commission shall approve an independent auditor from a list of three auditors proposed by the utility to participate in formulating each criterion for requests for proposals for new energy storage resources and reviewing the results of such requests for proposals. Such independent auditor shall ensure that the Phase I or Phase II Utility purchases projects at the lowest possible cost while ensuring project safety and electric grid reliability. Such independent auditor shall consider and evaluate best practices that are practicable for an electric utility located in the PJM region. In doing so, the independent auditor shall also evaluate the energy storage resources available to and selected by a Phase I or Phase II Utility as compared to the energy storage resources available to and selected by electric utilities in other states or regions of the United States. The independent auditor shall provide a report on such review to the Commission with each annual petition submitted by a Phase I or Phase II Utility under subdivision 4, which report shall be made publicly available on the Commission's website. Upon receiving such report, the Commission may direct the utility to alter its request for proposals to promote affordability, cost savings to customers, and electric grid reliability.

4. In connection with the requirements of this subsection, each Phase I and Phase II Utility shall, commencing in 2020 and concluding in ~~2035~~ *2045*, 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 subsection D concerning the allocation percentages for construction or purchase of such capacity. Such petition shall contain any 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 subsection E, including the goal of installing at least 10 percent of such energy storage projects *petitioned for pursuant to subdivisions E 1 and 2* behind the meter. In determining whether to approve the utility's plan and any associated petition requests, the Commission shall determine whether they are reasonable and prudent and shall give due consideration to (i) the RPS and carbon dioxide reduction requirements in this section; (ii) the promotion of new renewable generation and energy storage resources within the Commonwealth, and associated economic development; and (iii) fuel savings projected to be achieved by the plan. 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 Phase I or Phase II Utility 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 megawatts 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 Energy. In administering this account, the Department of 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.

For any project constructed pursuant to this subsection or subsection E, a utility shall, subject to a competitive procurement process, procure equipment from a Virginia-based or United States-based manufacturer using materials or product components made in Virginia or the United States, if reasonably available and competitively priced.

E. To enhance reliability and performance of the utility's generation and distribution system, each Phase I and Phase II Utility shall petition the Commission for necessary approvals to construct ~~or~~, acquire ~~new~~, *or procure* utility-owned energy storage resources. *For the purposes of this subsection, "long-duration energy*

storage" means energy storage resources with 10 hours or more of generation capacity operating at full nameplate capacity and "short-duration energy storage" means energy storage resources with less than 10 hours of generation capacity.

1. By December 31, ~~2035~~ *2040*, each Phase I Utility shall petition the Commission for necessary approvals to construct ~~or~~, acquire ~~400~~*, or procure 780* megawatts of *short-duration* energy storage capacity. Nothing in this subdivision shall prohibit a Phase I Utility from constructing ~~or~~, acquiring*, or procuring* more than ~~400~~ *780* megawatts of *short-duration* energy storage, provided that the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1. *Each Phase I Utility shall petition for at least 10 percent of all short-duration energy storage required by this subdivision to be recovered as electric distribution grid transformation projects in Commission filings conducted pursuant to subdivision A 6 of § 56-585.1.*

2. By December 31, ~~2035~~ *2045*, each Phase II Utility shall petition the Commission for necessary approvals to construct or acquire ~~2,700~~ *16,000* megawatts of *short-duration* energy storage capacity*, including 4,000 megawatts of short-duration energy storage capacity that shall be petitioned for by December 31, 2030*. Nothing in this subdivision shall prohibit a Phase II Utility from constructing ~~or~~, acquiring*, or procuring* more ~~than 2,700 megawatts of~~ *short-duration* energy storage *than required by this subdivision*, provided that the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1. *Each Phase II Utility shall petition for at least 10 percent of all short-duration energy storage required by this subdivision to be recovered as electric distribution grid transformation projects in Commission filings conducted pursuant to subdivision A 6 of § 56-585.1.*

3. By December 31, 2045, each Phase I Utility shall petition the Commission for necessary approvals to construct, acquire, or procure 520 megawatts of long-duration energy storage capacity, half of which shall be petitioned to the Commission for necessary approvals to be constructed, acquired, or procured by December 31, 2035. Of such 520 megawatts, half shall have between 10 and 24 hours of storage capacity and the other half shall have more than 24 hours of storage capacity. Nothing in this subdivision shall prohibit a Phase I Utility from constructing, acquiring, or procuring more than 520 megawatts of long-duration energy storage, provided that the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1.

4. By December 31, 2045, each Phase II Utility shall petition the Commission for necessary approvals to construct, acquire, or procure 4,000 megawatts of long-duration energy storage capacity, half of which shall be petitioned to the Commission for necessary approvals to be constructed, acquired, or procured by December 31, 2035. Of such 4,000 megawatts, (i) half shall have between 10 and 24 hours of storage capacity and the other half shall have more than 24 hours of storage capacity and (ii) at least 20 percent shall be located in the coalfield region of the Commonwealth, as described in § 15.2-6002. Nothing in this subdivision shall prohibit a Phase II Utility from constructing, acquiring, or procuring more than 4,000 megawatts of long-duration energy storage, provided that the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1.

5. For all energy storage projects proposed for construction, acquisition, or procurement pursuant to this subsection, the Phase I or Phase II Utility shall demonstrate compliance with the minimum safety standards set forth in the most recently published edition of the National Fire Protection Association 855 Standard for the Installation of Stationary Energy Storage Systems.

6. 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.~~ *7.* All energy storage projects *constructed, acquired, or* procured pursuant to this subsection shall meet the competitive procurement protocols established in subdivision D 3. *For all such energy storage projects, the utility shall demonstrate to the Commission that its procurement sought proposals for both the purchase of storage capacity and the purchase of storage facilities and evaluated the comparative costs, risk allocation, ownership implications, and impact on customers of each proposal received.*

~~5.~~ *8.* After July 1, 2020, at least 35 percent of the energy storage facilities placed into service shall be (i) purchased by the public utility from a party other than the public utility or (ii) owned by a party other than a public utility, with the capacity from such facilities sold to the public utility. By January 1, ~~2021~~ *2027*, the Commission shall adopt regulations to achieve the deployment of energy storage for the Commonwealth required in subdivisions 1 and 2, including regulations that set interim targets *from 2031 until 2045* 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. *The Commission shall update such regulations no less frequently than every five years.*

9. If a Phase I or Phase II Utility newly acquires the right, by contract or otherwise, to energy storage capacity from pumped storage facilities located in the Commonwealth, or makes investments to increase the electrical capacity of any such facility, such newly acquired or increased pumped storage capacity shall count toward the requirements of subdivision E 1 or 2 of § 56-585.5.

F. All costs incurred by a Phase I or Phase II Utility related to compliance with the requirements of this section or pursuant to § 56-585.1:11, including (i) costs of generation facilities powered by sunlight or

onshore or offshore wind, or energy storage facilities, that are constructed or acquired by a Phase I or Phase II Utility after July 1, 2020, (ii) costs of capacity, energy, or environmental attributes from generation facilities powered by sunlight or onshore or offshore wind, or falling water, or energy storage facilities purchased by the utility from persons other than the utility through agreements after July 1, 2020, and (iii) all other costs of compliance, including costs associated with the purchase of RECs associated with RPS Program requirements pursuant to this section shall be recovered from all retail customers in the service territory of a Phase I or Phase II Utility as a non-bypassable charge, irrespective of the generation supplier of such customer, except (a) as provided in subsection G for an accelerated renewable energy buyer or (b) as provided in subdivision C 3 of § 56-585.1:11, with respect to the costs of an offshore wind generation facility, for a PIPP eligible utility customer or an advanced clean energy buyer or qualifying large general service customer, as those terms are defined in § 56-585.1:11. If a Phase I or Phase II Utility serves customers in more than one jurisdiction, such utility shall recover all of the costs of compliance with the RPS Program requirements from its Virginia customers through the applicable cost recovery mechanism, and all associated energy, capacity, and environmental attributes shall be assigned to Virginia to the extent that such costs are requested but not recovered from any system customers outside the Commonwealth.

By September 1, 2020, the Commission shall direct the initiation of a proceeding for each Phase I and Phase II Utility to review and determine the amount of such costs, net of benefits, that should be allocated to retail customers within the utility's service territory which have elected to receive electric supply service from a supplier of electric energy other than the utility, and shall direct that tariff provisions be implemented to recover those costs from such customers beginning no later than January 1, 2021. Thereafter, such charges and tariff provisions shall be updated and trued up by the utility on an annual basis, subject to continuing review and approval by the Commission.

G. 1. An accelerated renewable energy buyer may contract with a Phase I or Phase II Utility, or a person other than a Phase I or Phase II Utility, to obtain (i) RECs from RPS eligible resources or (ii) bundled capacity, energy, and RECs from solar or, wind, or zero-carbon electricity generation resources located within the PJM region and initially placed in commercial operation after January 1, 2015, including any contract with a utility for such generation resources that does not allocate the cost of such resources to or recover the cost of such resources from any other customers of the utility that have not voluntarily agreed to pay such cost. Such an accelerated renewable energy buyer may offset all or a portion of its electric load for purposes of RPS compliance through such arrangements. An accelerated renewable energy buyer shall be exempt from the assignment of non-bypassable RPS compliance costs pursuant to subsection F, with the exception of the costs of an offshore wind generating facility pursuant to § 56-585.1:11, based on the amount of RECs obtained pursuant to this subsection in proportion to the customer's total electric energy consumption, on an annual basis. An accelerated renewable energy buyer may also contract with a Phase I or Phase II Utility, or a person other than a Phase I or Phase II Utility, to obtain capacity from energy storage facilities located within the network service area of the utility pursuant to this subsection, provided that the costs of such resources are not recovered from any of the utility's customers who have not voluntarily agreed to pay for such costs. Such accelerated renewable energy buyer shall be exempt from the assignment of non-bypassable RPS Program compliance costs specifically associated with energy storage facilities pursuant to this subsection in proportion to the customer's total capacity demand on an annual basis. An accelerated renewable energy buyer obtaining RECs only shall not be exempt from costs related to procurement of new solar or onshore wind generation capacity, energy, or environmental attributes, or energy storage facilities, by the utility pursuant to subsections D and E, however, an accelerated renewable energy buyer that is a customer of a Phase II Utility and was subscribed, as of March 1, 2020, to a voluntary companion experimental tariff offering of the utility for the purchase of renewable attributes from renewable energy facilities that requires a renewable facilities agreement and the purchase of a minimum of 2,000 renewable attributes annually, shall be exempt from allocation of the net costs related to procurement of new solar or onshore wind generation capacity, energy, or environmental attributes, or energy storage facilities, by the utility pursuant to subsections D and E, based on the amount of RECs associated with the customer's renewable facilities agreements associated with such tariff offering as of that date in proportion to the customer's total electric energy consumption, on an annual basis. To the extent that an accelerated renewable energy buyer contracts for the capacity of new solar or wind generation resources or energy storage facilities pursuant to this subsection, the aggregate amount of such nameplate capacity shall be offset from the utility's procurement requirements pursuant to subsection D. All RECs associated with contracts entered into by an accelerated renewable energy buyer with the utility, or a person other than the utility, for an RPS Program shall not be credited to the utility's compliance with its RPS requirements, and the calculation of the utility's RPS Program requirements shall not include the electric load covered by customers certified as accelerated renewable energy buyers.

2. Each Phase I or Phase II Utility shall certify, and verify as necessary, to the Commission that the accelerated renewable energy buyer has satisfied the exemption requirements of this subsection for each year, or an accelerated renewable energy buyer may choose to certify satisfaction of this exemption by reporting to the Commission individually. The Commission may promulgate such rules and regulations as may be

necessary to implement the provisions of this subsection.

3. Provided that no incremental costs associated with any contract between a Phase I or Phase II Utility and an accelerated renewable energy buyer is allocated to or recovered from any other customer of the utility, any such contract with an accelerated renewable energy buyer that is a jurisdictional customer of the utility shall not be deemed a special rate or contract requiring Commission approval pursuant to § 56-235.2.

4. The State Corporation Commission shall ensure that any distribution and transmission costs associated with new energy generation resources procured pursuant to subsection G of § 56-585.5 of the Code of Virginia, as amended by this act, are justly and reasonably allocated.

H. No customer of a Phase II Utility with a peak demand in excess of 100 megawatts in 2019 that elected pursuant to subdivision A 3 of § 56-577 to purchase electric energy from a competitive service provider prior to April 1, 2019, shall be allocated any non-bypassable charges pursuant to subsection F for such period that the customer is not purchasing electric energy from the utility, and such customer's electric load shall not be included in the utility's RPS Program requirements. No customer of a Phase I Utility that elected pursuant to subdivision A 3 of § 56-577 to purchase electric energy from a competitive service provider prior to February 1, 2019, shall be allocated any non-bypassable charges pursuant to subsection F for such period that the customer is not purchasing electric energy from the utility, and such customer's electric load shall not be included in the utility's RPS Program requirements.

I. In any petition by a Phase I or Phase II Utility for a certificate of public convenience and necessity to construct and operate an electrical generating facility that generates electric energy derived from sunlight submitted pursuant to § 56-580, such utility shall demonstrate that the proposed facility was subject to competitive procurement or solicitation as set forth in subdivision D 3.

J. Notwithstanding any contrary provision of law, for the purposes of this section, any falling water generation facility located in the Commonwealth and commencing commercial operations prior to July 1, 2024, shall be considered a renewable energy portfolio standard (RPS) eligible source.

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

L. 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.

2. That it is the policy of the Commonwealth to further the evaluation and growth of existing and new energy storage technologies, including short-duration energy storage and long-duration energy storage, as those terms are defined in subsection E of § 56-585.5 of the Code of Virginia, as amended by this act, in bolstering reliability of the electric grid and resource adequacy needs. The State Corporation Commission (the Commission) shall consider such policy in evaluating petitions by a Phase I or Phase II Utility, as those terms are defined in subdivision A 1 of § 56-585.1 of the Code of Virginia, to construct, acquire, or procure short-duration or long-duration energy storage resources pursuant to subsection E of § 56-585.5 of the Code of Virginia, as amended by this act. The Commission shall also consider such policy, and the role of energy storage resources in complementing the integration of renewable energy generation in the electric grid, in evaluating petitions related to energy storage resources and front-of-meter resiliency solutions for critical electrical infrastructure.

3. That the State Corporation Commission (the Commission) shall establish a technology demonstration program for long-duration energy storage, as defined in subsection E of § 56-585.5 of the Code of Virginia, as amended by this act, to evaluate the feasibility, effectiveness, and reliability benefits of such resources. Such program shall provide for a Phase II Utility, as defined in subdivision A 1 of § 56-585.1 of the Code of Virginia, to petition the Commission for approval to construct, acquire, or procure at least three different long-duration energy storage technologies with a cumulative discharge capacity of at least 4,000 megawatt-hours, unless the Commission in its discretion determines that long-duration energy storage resources are not reasonably available in sufficient quantities to support such petitions. Such program shall also provide that the Phase II Utility may include any long-duration energy storage resources existing at the time of such petition in such aggregate capacity. In performing the technology demonstration as established by the Commission, a Phase II Utility shall make a reasonable good-faith effort to secure appropriate sources of funding from the U.S. Department of Energy. A Phase II Utility shall report technology demonstration program progress and outcomes to the Commission no later than October 1, 2030. Such report shall include the progress and outcomes of all long-duration energy storage projects developed by the utility. Such report may also include data regarding the costs of projects included in the technology demonstration program, the ease and ability to procure necessary supply chain elements supporting long-duration energy storage, the relative ease associated with siting long-duration energy storage resources, and any other data that the Commission or Phase II Utility deems relevant.

4. That the provisions of subdivisions E 3 and 4 of § 56-585.5 of the Code of Virginia, as amended by this act, shall become effective only upon a determination by the State Corporation Commission (the Commission) that the technology referenced in such subdivisions is technically viable and that the construction, acquisition, or procurement targets referenced in such subdivisions are reasonably

achievable. The Commission shall initiate a proceeding to make such determination or alternatively propose modified targets and interim targets for the construction, acquisition, or procurement of such technology upon receipt of the report by a Phase II Utility as required by the third enactment of this act and shall enter its final order in such proceeding no later than March 1, 2031. As part of such proceeding, the Commission shall also review the targets for short-duration energy storage specified in subdivisions E 1 and 2 of § 56-585.5 of the Code of Virginia, as amended by this act, and may adjust such targets based on the status of available energy storage technologies, the benefit to utility customers, and benefits to the security and reliability of the electric grid. The Commission shall use all available data and information relating to such technology in the proceeding, including the details and results of long-duration energy storage projects, whether operational or under development, located outside the Commonwealth. In the event the Commission does not determine that such technology and targets are viable and achievable, nothing in this act shall prohibit the Commission from initiating future proceedings in its own discretion or upon a petition by an interested party to assess such technology and targets.

5. That the State Corporation Commission (the Commission) shall update its regulations to achieve the deployment of energy storage in the Commonwealth, including regulations that set any interim targets from 2031 until 2045 that the Commission, in its discretion, finds to be reasonable with the provisions of subdivisions E 1 and 2 of § 56-585.5 of the Code of Virginia, as amended by this act. Upon making the determination pursuant to the fourth enactment of this act, the Commission shall promulgate regulations reflecting any interim targets it finds reasonable with the provisions of subdivisions E 3 and 4 of § 56-585.5 of the Code of Virginia, as amended by this act.

6. That the State Corporation Commission shall initiate a technical conference no later than September 1, 2026, to evaluate nationwide safety standards and practices around short-duration energy storage development, including the most updated version of the National Fire Protection Association 855 Standard for the Installation of Stationary Energy Storage Systems, and the reasonableness and prudence of the safety standards required by a Phase I and Phase II Utility, as defined in subdivision A 1 of § 56-585.1 of the Code of Virginia.

7. That, in considering each applicable electric utility's petition filed in 2026 pursuant to subdivision D 4 of § 56-585.5 of the Code of Virginia, as amended by this act, the State Corporation Commission (the Commission) shall conduct an evaluation of the proposal requirements and evaluation criteria used by the utility in any solicitation for energy storage project proposals issued in furtherance of the provisions of subsection E of § 56-585.5 of the Code of Virginia, as amended by this act. If the Commission, in its discretion, determines that any such requirements or criteria are unreasonable for purposes of (i) protecting public safety, (ii) ensuring the reliability and security of electric service, and (iii) promoting the submission of cost-beneficial proposals, it may direct the applicable utility to modify such requirements or criteria. In making such determination, the Commission may consider, to the extent practicable, how the energy storage project proposals included in each utility's prior filings pursuant to subdivision D 4 of § 56-585.5 of the Code of Virginia, as amended by this act, may have differed under less stringent proposal requirements or evaluation criteria. For any competitive solicitation issued in 2026 seeking energy storage proposals for acquisition to support petitions filed pursuant to subdivision D 4 of § 56-585.5 of the Code of Virginia, as amended by this act, no utility shall prohibit the submission of energy storage proposals for acquisition that comply with the most recently published edition of the National Fire Protection Association 855 Standard for the Installation of Stationary Energy Utility Scale Storage Systems. Each applicable utility shall revise and reissue the requirements relative to energy storage proposals for acquisition within any such competitive solicitation issued prior to July 1, 2026, if necessary to comply with the provisions of this enactment. Nothing in this act shall be construed to limit the Commission's discretion to revisit such proposal requirements and evaluation criteria in subsequent proceedings.