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**HOUSE BILL NO. 638**

Offered January 10, 2024

Prefiled January 9, 2024

*A BILL to amend and reenact §§ 56-576 and 56-585.5 of the Code of Virginia and to amend the Code of Virginia by adding a section numbered 56-581.2, relating to electric utilities; energy efficiency programs; duty to implement the Energy Policy of the Commonwealth; RPS program requirements; competitive procurement.*

Patrons—Sullivan, Henson, Shin and Feggans

Referred to Committee on Labor and Commerce

**Be it enacted by the General Assembly of Virginia:**

**1. That §§ 56-576 and 56-585.5 of the Code of Virginia are amended and reenacted and that the Code of Virginia is amended by adding a section numbered 56-581.2 as follows:**

**§ 56-576. Definitions.**

As used in this chapter:

"Affiliate" means any person that controls, is controlled by, or is under common control with an electric utility.

"Aggregator" means a person that, as an agent or intermediary, (i) offers to purchase, or purchases, electric energy or (ii) offers to arrange for, or arranges for, the purchase of electric energy, for sale to, or on behalf of, two or more retail customers not controlled by or under common control with such person. The following activities shall not, in and of themselves, make a person an aggregator under this chapter: (i) furnishing legal services to two or more retail customers, suppliers or aggregators; (ii) furnishing educational, informational, or analytical services to two or more retail customers, unless direct or indirect compensation for such services is paid by an aggregator or supplier of electric energy; (iii) furnishing educational, informational, or analytical services to two or more suppliers or aggregators; (iv) providing default service under § 56-585; (v) engaging in activities of a retail electric energy supplier, licensed pursuant to § 56-587, which are authorized by such supplier's license; and (vi) engaging in actions of a retail customer, in common with one or more other such retail customers, to issue a request for proposal or to negotiate a purchase of electric energy for consumption by such retail customers.

"Business park" means a land development containing a minimum of 100 contiguous acres classified as a Tier 4 site under the Virginia Economic Development Partnership's Business Ready Sites Program that is developed and constructed by a locality, an industrial development authority, or a similar political subdivision of the Commonwealth created pursuant to § 15.2-4903 or other act of the General Assembly, in order to promote business development.

"Combined heat and power" means a method of using waste heat from electrical generation to offset traditional processes, space heating, air conditioning, or refrigeration.

"Commission" means the State Corporation Commission.

"Community in which a majority of the population are people of color" means a U.S. Census tract where more than 50 percent of the population comprises individuals who identify as belonging to one or more of the following groups: Black, African American, Asian, Pacific Islander, Native American, other non-white race, mixed race, Hispanic, Latino, or linguistically isolated.

"Cooperative" means a utility formed under or subject to Chapter 9.1 (§ 56-231.15 et seq.).

"Covered entity" means a provider in the Commonwealth of an electric service not subject to competition but does not include default service providers.

"Covered transaction" means an acquisition, merger, or consolidation of, or other transaction involving stock, securities, voting interests or assets by which one or more persons obtains control of a covered entity.

"Curtailment" means inducing retail customers to reduce load during times of peak demand so as to ease the burden on the electrical grid.

"Customer choice" means the opportunity for a retail customer in the Commonwealth to purchase electric energy from any supplier licensed and seeking to sell electric energy to that customer.

"Demand response" means measures aimed at shifting time of use of electricity from peak-use periods to times of lower demand by inducing retail customers to curtail electricity usage during periods of congestion and higher prices in the electrical grid.

"Distribute," "distributing," or "distribution of" electric energy means the transfer of electric energy through a retail distribution system to a retail customer.

"Distributor" means a person owning, controlling, or operating a retail distribution system to provide

INTRODUCED

HB638

59 electric energy directly to retail customers.

60 "Electric distribution grid transformation project" means a project associated with electric distribution  
61 infrastructure, including related data analytics equipment, that is designed to accommodate or facilitate  
62 the integration of utility-owned or customer-owned renewable electric generation resources with the  
63 utility's electric distribution grid or to otherwise enhance electric distribution grid reliability, electric  
64 distribution grid security, customer service, or energy efficiency and conservation, including advanced  
65 metering infrastructure; intelligent grid devices for real time system and asset information; automated  
66 control systems for electric distribution circuits and substations; communications networks for service  
67 meters; intelligent grid devices and other distribution equipment; distribution system hardening projects  
68 for circuits, other than the conversion of overhead tap lines to underground service, and substations  
69 designed to reduce service outages or service restoration times; physical security measures at key  
70 distribution substations; cyber security measures; energy storage systems and microgrids that support  
71 circuit-level grid stability, power quality, reliability, or resiliency or provide temporary backup energy  
72 supply; electrical facilities and infrastructure necessary to support electric vehicle charging systems; LED  
73 street light conversions; and new customer information platforms designed to provide improved customer  
74 access, greater service options, and expanded access to energy usage information.

75 "Electric utility" means any person that generates, transmits, or distributes electric energy for use by  
76 retail customers in the Commonwealth, including any investor-owned electric utility, cooperative electric  
77 utility, or electric utility owned or operated by a municipality.

78 "Energy efficiency program" means a program that reduces the total amount of electricity that is  
79 required for the same process or activity implemented after the expiration of capped rates. Energy  
80 efficiency programs include equipment, physical, or program change designed to produce measured and  
81 verified reductions in the amount of electricity required to perform the same function and produce the  
82 same or a similar outcome. Energy efficiency programs may include, but are not limited to, (i) programs  
83 that result in improvements in lighting design, heating, ventilation, and air conditioning systems,  
84 appliances, building envelopes, and industrial and commercial processes; (ii) measures, such as but not  
85 limited to the installation of advanced meters, implemented or installed by utilities, that reduce fuel use  
86 or losses of electricity and otherwise improve internal operating efficiency in generation, transmission,  
87 and distribution systems; and (iii) customer engagement programs that result in measurable and  
88 verifiable energy savings that lead to efficient use patterns and practices. Energy efficiency programs  
89 include demand response, combined heat and power and waste heat recovery, curtailment, or other  
90 programs that are designed to reduce electricity consumption so long as they reduce the total amount of  
91 electricity that is required for the same process or activity. Utilities shall be authorized to install and  
92 operate such advanced metering technology and equipment on a customer's premises; however, nothing  
93 in this chapter establishes a requirement that an energy efficiency program be implemented on a  
94 customer's premises and be connected to a customer's wiring on the customer's side of the  
95 inter-connection without the customer's expressed consent.

96 "Generate," "generating," or "generation of" electric energy means the production of electric energy.

97 "Generator" means a person owning, controlling, or operating a facility that produces electric energy  
98 for sale.

99 "Historically economically disadvantaged community" means (i) a community in which a majority of  
100 the population are people of color or (ii) a low-income geographic area.

101 "Incumbent electric utility" means each electric utility in the Commonwealth that, prior to July 1,  
102 1999, supplied electric energy to retail customers located in an exclusive service territory established by  
103 the Commission.

104 "Independent system operator" means a person that may receive or has received, by transfer pursuant  
105 to this chapter, any ownership or control of, or any responsibility to operate, all or part of the  
106 transmission systems in the Commonwealth.

107 "In the public interest," for purposes of assessing energy efficiency programs, describes an energy  
108 efficiency program if the Commission determines that the net present value of the benefits exceeds the  
109 net present value of the costs as determined by not less than any three of the following four tests: (i) the  
110 Total Resource Cost Test; (ii) the Utility Cost Test (also referred to as the Program Administrator Test);  
111 (iii) the Participant Test; and (iv) the Ratepayer Impact Measure Test. Such determination shall include  
112 an analysis of all four tests, and a program or portfolio of programs shall be approved if the net present  
113 value of the benefits exceeds the net present value of the costs as determined by not less than any three  
114 of the four tests *program is cost-effective, as determined by a cost-effectiveness test established by the*  
115 *Commission.* If the Commission determines that an energy efficiency program or portfolio of programs  
116 is not in the public interest, its final order shall include all work product and analysis conducted by the  
117 Commission's staff in relation to that program, including testimony relied upon by the Commission's  
118 staff, that has bearing upon the Commission's decision. If the Commission reduces the proposed budget  
119 for a program or portfolio of programs, its final order shall include an analysis of the impact such  
120 budget reduction has upon the cost-effectiveness of such program or portfolio of programs. An order by

the Commission (a) finding that a program or portfolio of programs is not in the public interest or (b) reducing the proposed budget for any program or portfolio of programs shall adhere to existing protocols for extraordinarily sensitive information. In addition, an energy efficiency program may be deemed to be "in the public interest" if the program (1) provides measurable and verifiable energy savings to low-income customers or elderly customers or (2) is a pilot program of limited scope, cost, and duration, that is intended to determine whether a new or substantially revised program or technology would be cost-effective.

"Low-income geographic area" means any locality, or community within a locality, that has a median household income that is not greater than 80 percent of the local median household income, or any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his delegation of authority to the Internal Revenue Service.

"Low-income utility customer" means any person or household whose income is no more than 80 percent of the median income of the locality in which the customer resides. The median income of the locality is determined by the U.S. Department of Housing and Urban Development.

"Measured and verified" means a process determined pursuant to methods accepted for use by utilities and industries to measure, verify, and validate energy savings and peak demand savings. This may include the protocol established by the United States Department of Energy, Office of Federal Energy Management Programs, Measurement and Verification Guidance for Federal Energy Projects, measurement and verification standards developed by the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), or engineering-based estimates of energy and demand savings associated with specific energy efficiency measures, as determined by the Commission.

"Municipality" means a city, county, town, authority, or other political subdivision of the Commonwealth.

"New underground facilities" means facilities to provide underground distribution service. "New underground facilities" includes underground cables with voltages of 69 kilovolts or less, pad-mounted devices, connections at customer meters, and transition terminations from existing overhead distribution sources.

"Peak-shaving" means measures aimed solely at shifting time of use of electricity from peak-use periods to times of lower demand by inducing retail customers to curtail electricity usage during periods of congestion and higher prices in the electrical grid.

"Percentage of Income Payment Program (PIPP) eligible utility customer" means any person or household whose income does not exceed 150 percent of the federal poverty level.

"Person" means any individual, corporation, partnership, association, company, business, trust, joint venture, or other private legal entity, and the Commonwealth or any municipality.

"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, 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.

"Qualified waste heat resource" means (i) exhaust heat or flared gas from an industrial process that does not have, as its primary purpose, the production of electricity and (ii) a pressure drop in any gas for an industrial or commercial process.

"Renewable energy" means energy derived from sunlight, wind, falling water, biomass, sustainable or otherwise, (the definitions of which shall be liberally construed), energy from waste, landfill 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" also includes the proportion of the thermal or electric energy from a facility that results from the co-firing of biomass. "Renewable energy" does not include waste heat from fossil-fired facilities or electricity generated from pumped storage but includes run-of-river generation from a combined pumped-storage and run-of-river facility.

"Renewable thermal energy" means the thermal energy output from (i) a renewable-fueled combined heat and power generation facility that is (a) constructed, or renovated and improved, after January 1, 2012, (b) located in the Commonwealth, and (c) utilized in industrial processes other than the combined heat and power generation facility or (ii) a solar energy system, certified to the OG-100 standard of the Solar Ratings and Certification Corporation or an equivalent certification body, that (a) is constructed, or renovated and improved, after January 1, 2013, (b) is located in the Commonwealth, and (c) heats water or air for residential, commercial, institutional, or industrial purposes.

"Renewable thermal energy equivalent" means the electrical equivalent in megawatt hours of renewable thermal energy calculated by dividing (i) the heat content, measured in British thermal units

182 (BTUs), of the renewable thermal energy at the point of transfer to a residential, commercial,  
183 institutional, or industrial process by (ii) the standard conversion factor of 3.413 million BTUs per  
184 megawatt hour.

185 "Renovated and improved facility" means a facility the components of which have been upgraded to  
186 enhance its operating efficiency.

187 "Retail customer" means any person that purchases retail electric energy for its own consumption at  
188 one or more metering points or nonmetered points of delivery located in the Commonwealth.

189 "Retail electric energy" means electric energy sold for ultimate consumption to a retail customer.

190 "Revenue reductions related to energy efficiency programs" means reductions in the collection of  
191 total non-fuel revenues, previously authorized by the Commission to be recovered from customers by a  
192 utility, that occur due to measured and verified decreased consumption of electricity caused by energy  
193 efficiency programs approved by the Commission and implemented by the utility, less the amount by  
194 which such non-fuel reductions in total revenues have been mitigated through other program-related  
195 factors, including reductions in variable operating expenses.

196 "Rooftop solar installation" means a distributed electric generation facility, storage facility, or  
197 generation and storage facility utilizing energy derived from sunlight, with a rated capacity of not less  
198 than 50 kilowatts, that is installed on the roof structure of an incumbent electric utility's commercial or  
199 industrial class customer, including host sites on commercial buildings, multifamily residential buildings,  
200 school or university buildings, and buildings of a church or religious body.

201 "Solar energy system" means a system of components that produces heat or electricity, or both, from  
202 sunlight.

203 "Supplier" means any generator, distributor, aggregator, broker, marketer, or other person who offers  
204 to sell or sells electric energy to retail customers and is licensed by the Commission to do so, but it  
205 does not mean a generator that produces electric energy exclusively for its own consumption or the  
206 consumption of an affiliate.

207 "Supply" or "supplying" electric energy means the sale of or the offer to sell electric energy to a  
208 retail customer.

209 "Total annual energy savings" means (i) the total combined kilowatt-hour savings achieved by  
210 electric utility energy efficiency and demand response programs and measures installed in that program  
211 year, as well as savings still being achieved by measures and programs implemented in prior years, or  
212 (ii) savings attributable to newly installed combined heat and power facilities, including waste  
213 heat-to-power facilities, and any associated reduction in transmission line losses, provided that biomass  
214 is not a fuel and the total efficiency, including the use of thermal energy, for eligible combined heat and  
215 power facilities must meet or exceed 65 percent and have a nameplate capacity rating of less than 25  
216 megawatts.

217 "Transmission of," "transmit," or "transmitting" electric energy means the transfer of electric energy  
218 through the Commonwealth's interconnected transmission grid from a generator to either a distributor or  
219 a retail customer.

220 "Transmission system" means those facilities and equipment that are required to provide for the  
221 transmission of electric energy.

222 "Waste heat to power" means a system that generates electricity through the recovery of a qualified  
223 waste heat resource.

224 ***§ 56-581.2. Commission duty regarding the Energy Policy of the Commonwealth.***

225 *The Commission and its staff shall have the affirmative duty to ensure the Commonwealth*  
226 *implements the Energy Policy of the Commonwealth pursuant to Article 3 of Chapter 17 (§ 45.2-1705 et*  
227 *seq.) of Title 45.2 at the lowest reasonable cost, taking into account all cost-effective demand-side*  
228 *management options and the security and reliability benefits of the regional transmission entity to which*  
229 *each incumbent electric utility has joined pursuant to § 56-579.*

230 ***§ 56-585.5. Generation of electricity from renewable and zero carbon sources.***

231 A. As used in this section:

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

236 "Aggregate load" means the combined electrical load associated with selected accounts of an  
237 accelerated renewable energy buyer with the same legal entity name as, or in the names of affiliated  
238 entities that control, are controlled by, or are under common control of, such legal entity or are the  
239 names of affiliated entities under a common parent.

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

241 "Falling water" means hydroelectric resources, including run-of-river generation from a combined  
242 pumped-storage and run-of-river facility. "Falling water" does not include electricity generated from  
243 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 or customers purchasing 100 percent renewable energy pursuant to § 56-577 provided that the sources serving such customers would qualify as RPS eligible sources under this section, 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; or (e) 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.

The RPS Program requirements shall be a percentage of the total electric energy sold in the previous calendar year ~~and~~. *In any RPS program compliance year, any electric energy that was generated in the previous calendar year from (1) nuclear generating plants, other than small modular nuclear reactors, located within the Commonwealth and that were operating by July 1, 2020, or (2) any zero-carbon electric generating facilities, including small modular nuclear reactors and green hydrogen facilities, that are not otherwise RPS eligible sources and that are placed into service in the Commonwealth after July 1, 2030, shall reduce the utility's RPS Program requirements by an equivalent amount. The RPS Program 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 thereafter	100%

A Phase II Utility shall meet ~~one~~ *five* 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~~ *three megawatts* 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~~ *five* percent shall be composed of low-income qualifying projects.

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.

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.

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 *at least* 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 *at least* 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 *at least* 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

431 56-585.1.

432 2. By December 31, 2035, each Phase II Utility shall petition the Commission for necessary  
433 approvals to (i) construct, acquire, or enter into agreements to purchase the energy, capacity, and  
434 environmental attributes of 16,100 megawatts of generating capacity located in the Commonwealth using  
435 energy derived from sunlight or onshore wind, which shall include 1,100 megawatts of solar generation  
436 of a nameplate capacity not to exceed three megawatts per individual project and *at least* 35 percent of  
437 such generating capacity procured shall be from the purchase of energy, capacity, and environmental  
438 attributes from solar facilities owned by persons other than a utility, including utility affiliates and  
439 deregulated affiliates and (ii) pursuant to § 56-585.1:11, construct or purchase one or more offshore  
440 wind generation facilities located off the Commonwealth's Atlantic shoreline or in federal waters and  
441 interconnected directly into the Commonwealth with an aggregate capacity of up to 5,200 megawatts. At  
442 least 200 megawatts of the 16,100 megawatts shall be placed on previously developed project sites.

443 a. By December 31, 2024, each Phase II Utility shall petition the Commission for necessary  
444 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
445 environmental attributes of at least 3,000 megawatts of generating capacity located in the  
446 Commonwealth using energy derived from sunlight or onshore wind, and *at least* 35 percent of such  
447 generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes  
448 from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the  
449 aggregate, being from construction or acquisition by such Phase II Utility.

450 b. By December 31, 2027, each Phase II Utility shall petition the Commission for necessary  
451 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
452 environmental attributes of at least 3,000 megawatts of additional generating capacity located in the  
453 Commonwealth using energy derived from sunlight or onshore wind, and *at least* 35 percent of such  
454 generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes  
455 from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the  
456 aggregate, being from construction or acquisition by such Phase II Utility.

457 c. By December 31, 2030, each Phase II Utility shall petition the Commission for necessary  
458 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
459 environmental attributes of at least 4,000 megawatts of additional generating capacity located in the  
460 Commonwealth using energy derived from sunlight or onshore wind, and *at least* 35 percent of such  
461 generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes  
462 from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the  
463 aggregate, being from construction or acquisition by such Phase II Utility.

464 d. By December 31, 2035, each Phase II Utility shall petition the Commission for necessary  
465 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and  
466 environmental attributes of at least 6,100 megawatts of additional generating capacity located in the  
467 Commonwealth using energy derived from sunlight or onshore wind, and *at least* 35 percent of such  
468 generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes  
469 from solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the  
470 aggregate, being from construction or acquisition by such Phase II Utility.

471 e. Nothing in this subdivision 2 shall prohibit such Phase II Utility from constructing, acquiring, or  
472 entering into agreements to purchase the energy, capacity, and environmental attributes of more than  
473 16,100 megawatts of generating capacity located in the Commonwealth using energy derived from  
474 sunlight or onshore wind, provided the utility receives approval from the Commission pursuant to  
475 §§ 56-580 and 56-585.1.

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

484 Each Phase I and Phase II Utility shall, at least once every year, conduct a request for proposals for  
485 new solar and wind resources. Such requests shall quantify and describe the utility's need for energy,  
486 capacity, or renewable energy certificates. The requests for proposals shall be publicly announced and  
487 made available for public review on the utility's website at least 45 days prior to the closing of such  
488 request for proposals. The requests for proposals shall provide, at a minimum, the following information:  
489 (a) the size, type, and timing of resources for which the utility anticipates contracting; (b) any minimum  
490 thresholds that must be met by respondents; (c) major assumptions to be used by the utility in the bid  
491 evaluation process, including environmental emission standards; (d) detailed instructions for preparing  
492 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.

4. In connection with the requirements of this subsection, each Phase I and Phase II Utility shall, commencing in 2020 and concluding in 2035, 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 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, utility-owned energy storage resources.

1. By December 31, 2035, each Phase I Utility shall petition the Commission for necessary approvals to construct or acquire 400 megawatts of energy storage capacity. Nothing in this subdivision shall prohibit a Phase I Utility from constructing or acquiring more than 400 megawatts of energy storage, provided that 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 construct or acquire 2,700 megawatts of energy storage capacity. Nothing in this subdivision shall prohibit a Phase II Utility from constructing or acquiring more than 2,700 megawatts of energy storage, provided that 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. 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, 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 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. 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 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 to or recover from any other customer of the utility the cost of such resources. 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 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 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.

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

K. 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, no later than December 31, 2025, the State Corporation Commission (the Commission) shall initiate a proceeding to establish a single, consistent cost-effectiveness test for use in evaluating proposed energy efficiency programs. In establishing this test, the Commission shall (i) use the cost-benefit analysis framework and process contained in the National Energy Screening Project's National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources (NSPM), (ii) utilize a stakeholder process that is facilitated by an independent monitor and with technical assistance provided by a group with experience in the process set forth in the NSPM, and (iii) design such test to further the Commonwealth's energy policy requirements and goals including further compliance with the standards set forth in § 56-596.2 of the Code of Virginia. Any costs associated with clause (ii) shall be funded through the special regulatory revenue tax currently authorized by § 58.1-2660 of the Code of Virginia and the special regulatory tax authorized by Chapter 29 (§ 58.1-2900 et seq.) of Title 58.1 of the Code of Virginia.**