

Proposed by the Maryland, District of Columbia, Virginia Solar Energy Industries Association  
(MDV-SEIA)  
For the 2013 Virginia General Assembly

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*A BILL to amend and reenact § [56-576](#) of the Code of Virginia, relating to satisfying Renewable Portfolio Standard goals using renewable thermal energy.*

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Be it enacted by the General Assembly of Virginia:

1. That § [56-576](#) of the Code of Virginia be amended and reenacted 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.

"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.

"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 shall 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 electric energy directly to retail customers.

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

"Energy efficiency program" means a program that reduces the total amount of electricity that is required for the same process or activity implemented after the expiration of capped rates. Energy efficiency programs include equipment, physical, or program change designed to produce measured and verified reductions in the amount of electricity required to perform the same function and produce the same or a similar outcome. Energy efficiency programs may include, but are not limited to, (i) programs that result in improvements in lighting design, heating, ventilation, and air conditioning systems, appliances, building envelopes, and industrial and commercial processes; (ii) measures, such as but not limited to the installation of advanced meters, implemented or installed by utilities, that reduce fuel use or losses of electricity and otherwise improve internal operating efficiency in generation, transmission, and distribution systems; and (iii) customer engagement programs that result in measurable and verifiable energy savings that lead to efficient use patterns and practices. Energy efficiency programs include demand response, combined heat and power and waste heat recovery, curtailment, or other programs that are designed to reduce electricity consumption so long as they reduce the total amount of electricity that is required for the same process or activity. Utilities shall be authorized to install and operate such advanced metering technology and equipment on a customer's premises; however, nothing in this chapter establishes a requirement that an energy efficiency

program be implemented on a customer's premises and be connected to a customer's wiring on the customer's side of the inter-connection without the customer's expressed consent.

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

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

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

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

"In the public interest," for purposes of assessing energy efficiency programs, describes an energy efficiency program if, among other factors, the net present value of the benefits exceeds the net present value of the costs as determined by the Commission upon consideration of the following four tests: (i) the Total Resource Cost Test; (ii) the Utility Cost Test (also referred to as the Program Administrator Test); (iii) the Participant Test; and (iv) the Ratepayer Impact Measure Test. Such determination shall include an analysis of all four tests, and a program or portfolio of programs shall not be rejected based solely on the results of a single test. In addition, an energy efficiency program may be deemed to be "in the public interest" if the program provides measurable and verifiable energy savings to low-income customers or elderly customers.

"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.

"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.

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

"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 shall also include the proportion of the thermal or electric energy from a facility that results from the co-firing of biomass.

"Renewable thermal energy" means the thermal energy output from (i) a renewable-fueled combined heat and power generation facility that is ~~(i)(a)~~ constructed, or renovated and improved, after January 1, 2012, ~~(ii)(b)~~ located in the Commonwealth, and ~~(iii)(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 is (a) constructed, or renovated and improved, after January 1, 2013, (b) 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 (BTUs), of the renewable thermal energy at the point of transfer to ~~an~~ a residential, commercial, institutional, or industrial process by (ii) the standard conversion factor of 3.413 million BTUs per megawatt hour.

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

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

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

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

A "solar energy system" means a system of components that produces heat, electricity, or both, from sunlight.

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

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

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

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

Note that §56-576 works with §56-585.2 to have its intended effect. As a result, §56-585.2 is provided herein for reference only. No changes to §56-585.2 are required to implement MDV-SEIA's proposal to grant RPS credit for solar thermal energy.

§ 56-585.2. Sale of electricity from renewable sources through a renewable energy portfolio standard program.

A. As used in this section:

"Qualified investment" means an expense incurred in the Commonwealth by a participating utility in conducting, either by itself or in partnership with institutions of higher education in the Commonwealth or with industrial or commercial customers that have established renewable energy research and development programs in the Commonwealth, research and development activities related to renewable or alternative energy sources, which expense (i) is designed to enhance the participating utility's understanding of emerging energy technologies and their potential impact on and value to the utility's system and customers within the Commonwealth; (ii) promotes economic development within the Commonwealth; (iii) supplements customer-driven alternative energy or energy efficiency initiatives; (iv) supplements alternative energy and energy efficiency initiatives at state or local governmental facilities in the Commonwealth; or (v) is designed to mitigate the environmental impacts of renewable energy projects.

"Renewable energy" shall have the same meaning ascribed to it in § [56-576](#), provided such renewable energy is (i) generated or purchased in the Commonwealth or in the interconnection region of the regional transmission entity of which the participating utility is a member, as it may change from time to time; (ii) generated by a public utility providing electric service in the Commonwealth from a facility in which the public utility owns at least a 49 percent interest and that is located in a control area adjacent to such interconnection region; or (iii) represented by renewable energy certificates. "Renewable energy" shall not include electricity generated from pumped storage, but shall include run-of-river generation from a combined pumped-storage and run-of-river facility.

"Renewable energy certificate" means either (i) a certificate issued by an affiliate of the regional transmission entity of which the participating utility is a member, as it may change from time to time, or any successor to such affiliate, and held or acquired by such utility, that validates the generation of renewable energy by eligible sources in the interconnection region of the regional transmission entity or (ii) a certificate issued by the Commission pursuant to subsection J and

held or acquired by a participating utility, that validates a qualified investment made by the participating utility.

"Total electric energy sold in the base year" means total electric energy sold to Virginia jurisdictional retail customers by a participating utility in calendar year 2007, excluding an amount equivalent to the average of the annual percentages of the electric energy that was supplied to such customers from nuclear generating plants for the calendar years 2004 through 2006.

B. Any investor-owned incumbent electric utility may apply to the Commission for approval to participate in a renewable energy portfolio standard program, as defined in this section. The Commission shall approve such application if the applicant demonstrates that it has a reasonable expectation of achieving 12 percent of its base year electric energy sales from renewable energy sources during calendar year 2022, and 15 percent of its base year electric energy sales from renewable energy sources during calendar year 2025, as provided in subsection D.

C. It is in the public interest for utilities to achieve the goals set forth in subsection D, such goals being referred to herein as "RPS Goals". Accordingly, the Commission, in addition to providing recovery of incremental RPS program costs pursuant to subsection E, shall increase the fair combined rate of return on common equity for each utility participating in such program by a single Performance Incentive, as defined in subdivision A 2 of § [56-585.1](#), of 50 basis points whenever the utility attains an RPS Goal established in subsection D. Such Performance Incentive shall first be used in the calculation of a fair combined rate of return for the purposes of the immediately succeeding biennial review conducted pursuant to § [56-585.1](#) after any such RPS Goal is attained, and shall remain in effect if the utility continues to meet the RPS Goals established in this section through and including the third succeeding biennial review conducted thereafter. Any such Performance Incentive, if implemented, shall be in lieu of any other Performance Incentive reducing or increasing such utility's fair combined rate of return on common equity for the same time periods. However, if the utility receives any other Performance Incentive increasing its fair combined rate of return on common equity by more than 50 basis points, the utility shall be entitled to such other Performance Incentive in lieu of this Performance Incentive during the term of such other Performance Incentive. A utility shall receive double credit toward meeting the renewable energy portfolio standard for energy derived from sunlight, from onshore wind, or from facilities in the Commonwealth fueled primarily by animal waste, and triple credit toward meeting the renewable energy portfolio standard for energy derived from offshore wind.

D. To qualify for the Performance Incentive established in subsection C, the total electric energy sold by a utility to meet the RPS Goals shall be composed of the following amounts of electric energy or renewable thermal energy equivalent from renewable energy sources, as adjusted for any sales volumes lost through operation of the customer choice provisions of subdivision A 3 or A 4 of § [56-577](#):

RPS Goal I: In calendar year 2010, 4 percent of total electric energy sold in the base year.

RPS Goal II: For calendar years 2011 through 2015, inclusive, an average of 4 percent of total electric energy sold in the base year, and in calendar year 2016, 7 percent of total electric energy sold in the base year.

RPS Goal III: For calendar years 2017 through 2021, inclusive, an average of 7 percent of total electric energy sold in the base year, and in calendar year 2022, 12 percent of total electric energy sold in the base year.

RPS Goal IV: For calendar years 2023 and 2024, inclusive, an average of 12 percent of total electric energy sold in the base year, and in calendar year 2025, 15 percent of total electric energy sold in the base year.

A utility may not apply renewable energy certificates issued pursuant to subsection J to meet more than 20 percent of the sales requirement for the RPS Goal in any year.

A utility may apply renewable energy sales achieved or renewable energy certificates acquired during the periods covered by any such RPS Goal that are in excess of the sales requirement for that RPS Goal to the sales requirements for any future RPS Goal.

E. A utility participating in such program shall have the right to recover all incremental costs incurred for the purpose of such participation in such program, as accrued against income, through rate adjustment clauses as provided in subdivisions A 5 and A 6 of § [56-585.1](#), including, but not limited to, administrative costs, ancillary costs, capacity costs, costs of energy represented by certificates described in subsection A, and, in the case of construction of renewable energy generation facilities, allowance for funds used during construction until such time as an enhanced rate of return, as determined pursuant to subdivision A 6 of § [56-585.1](#), on construction work in progress is included in rates, projected construction work in progress, planning, development and construction costs, life-cycle costs, and costs of infrastructure associated therewith, plus an enhanced rate of return, as determined pursuant to subdivision A 6 of § [56-585.1](#). This subsection shall not apply to qualified investments as provided in subsection K. All incremental costs of the RPS program shall be allocated to and recovered from the utility's customer classes based on the demand created by the class and within the class based on energy used by the individual customer in the class, except that the incremental costs of the RPS program shall not be allocated to or recovered from customers that are served within the large industrial rate classes of the participating utilities and that are served at primary or transmission voltage.

F. A utility participating in such program shall apply towards meeting its RPS Goals any renewable energy from existing renewable energy sources owned by the participating utility or purchased as allowed by contract at no additional cost to customers to the extent feasible. A utility participating in such program shall not apply towards meeting its RPS Goals renewable energy certificates attributable to any renewable energy generated at a renewable energy generation source in operation as of July 1, 2007, that is operated by a person that is served within a utility's large industrial rate class and that is served at primary or transmission voltage, except for those persons providing renewable thermal energy equivalents to the utility. A participating utility shall be required to fulfill any remaining deficit needed to fulfill its RPS

Goals from new renewable energy supplies at reasonable cost and in a prudent manner to be determined by the Commission at the time of approval of any application made pursuant to subsection B. A participating utility may sell renewable energy certificates produced at its own generation facilities located in the Commonwealth or, if located outside the Commonwealth, owned by such utility and in operation as of January 1, 2010, or renewable energy certificates acquired as part of a purchase power agreement, to another entity and purchase lower cost renewable energy certificates and the net difference in price between the renewable energy certificates shall be credited to customers. Utilities participating in such program shall collectively, either through the installation of new generating facilities, through retrofit of existing facilities or through purchases of electricity from new facilities located in Virginia, use or cause to be used no more than a total of 1.5 million tons per year of green wood chips, bark, sawdust, a tree or any portion of a tree which is used or can be used for lumber and pulp manufacturing by facilities located in Virginia, towards meeting RPS goals, excluding such fuel used at electric generating facilities using wood as fuel prior to January 1, 2007. A utility with an approved application shall be allocated a portion of the 1.5 million tons per year in proportion to its share of the total electric energy sold in the base year, as defined in subsection A, for all utilities participating in the RPS program. A utility may use in meeting RPS goals, without limitation, the following sustainable biomass and biomass based waste to energy resources: mill residue, except wood chips, sawdust and bark; pre-commercial soft wood thinning; slash; logging and construction debris; brush; yard waste; shipping crates; dunnage; non-merchantable waste paper; landscape or right-of-way tree trimmings; agricultural and vineyard materials; grain; legumes; sugar; and gas produced from the anaerobic decomposition of animal waste.

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

H. Each investor-owned incumbent electric utility shall report to the Commission annually by November 1 identifying:

1. The utility's efforts, if any, to meet the RPS Goals, specifically identifying:
  - a. A list of all states where the purchased or owned renewable energy was generated, specifying the number of megawatt hours or renewable energy certificates originating from each state;
  - b. A list of the decades in which the purchased or owned renewable energy generating units were placed in service, specifying the number of megawatt hours or renewable energy certificates originating from those units; and
  - c. A list of fuel types used to generate the purchased or owned renewable energy, specifying the number of megawatt hours or renewable energy certificates originating from each fuel type;
2. The utility's overall generation of renewable energy; and
3. Advances in renewable generation technology that affect activities described in subdivisions 1 and 2.

I. The Commission shall post on its website the reports submitted by each investor-owned incumbent electric utility pursuant to subsection H.

J. The Commission shall issue to a participating utility a number of renewable energy certificates for qualified investments, upon request by a participating utility, if it finds that an expense satisfies the conditions set forth in this section for a qualified investment, as follows:

1. By March 31 of each year, the participating utility shall provide an analysis, as reasonably determined by a qualified independent broker, of the average for the preceding year of the publicly available prices for Tier 1 renewable energy certificates and Tier 2 renewable energy certificates, validating the generation of renewable energy by eligible sources, that were issued in the interconnection region of the regional transmission entity of which the participating utility is a member;
2. In the same annual analysis provided to the Commission, the participating utility shall divide the amount of the participating utility's qualified investments in the applicable period by the average price determined pursuant to subdivision 1;
3. The number of renewable energy certificates to be issued to the participating utility shall equal the product obtained pursuant to subdivision 2; and
4. The Commission shall review and validate the analysis provided by the participating utility within 90 days of submittal of its analysis to the Commission. If no corrections are made by the Commission, then the analysis shall be deemed correct and the renewable energy certificates shall be deemed issued to the participating utility.

Each renewable energy certificate issued to a participating utility pursuant to this subsection shall represent the equivalent of one megawatt hour of renewable energy sales achieved when applied to an RPS Goal.

K. Qualified investments shall constitute reasonable and prudent operating expenses of a participating utility. Notwithstanding subsection E, a participating utility shall not be authorized to recover the costs associated with qualified investments through rate adjustment clauses as provided in subdivisions A 5 and A 6 of § [56-585.1](#). In any proceeding conducted pursuant to § [56-585.1](#) or other provision of this title in which a participating utility seeks recovery of its qualified investments as an operating expense, the participating utility shall not be authorized to earn a return on its qualified investments.

L. A participating utility shall not be eligible for a research and development tax credit pursuant to § [58.1-439.12:08](#) with regard to any expense incurred or investment made by the participating utility that constitutes a qualified investment pursuant to this section.