

**SENATE BILL NO. 849**

Offered January 11, 2023

Prefiled December 29, 2022

*A BILL to amend and reenact §§56-245.1, 56-232 and 56-576 of the Code of Virginia, relating to public utilities; customer consent to install smartwireless meter.*

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Patron-- Chase

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Referred to Committee on Commerce and Labor  
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Be it enacted by the General Assembly of Virginia:

1. That § 56-245.1 of the Code of Virginia is amended and reenacted as follows:

§ 56-245.1. Meters to be kept in good working condition; defective meters; smartwireless meters.

(1) A. Any person, firm, corporation, county, city, town or association, hereinafter referred to as person, who or which furnishes water, gas or electricity to the premises of another and employs a meter to determine the quantity of water, gas or electricity furnished to such premises and bases its charges thereon shall keep meter in good working condition.

(2) B. When any such person is notified in writing that any such meter is broken or not functioning properly he shall promptly investigate the matter and, if the meter is found to be defective, repair or replace the meter within thirty days of such notice. If the meter is found to be in good working condition, a written report of such determination shall be mailed or delivered to the affected customer within thirty days of such notice. If any defective meter is not repaired or replaced as provided herein, or if the required report is not made, the affected customer shall not be required to pay for the service furnished through the meter, after the expiration of the thirty-day period until the repair or replacement is made, or until the required report is made, and his service shall not be terminated for failure to pay under such circumstances.

C. No public utility shall install a smartwireless meter, meter functionality alteration, or wireless equivalent technology on the premises of a customer without first obtaining such customer's consent to such installation, and this consent may be revoked at any time. No public utility shall: (i) discontinue service to a customer who does not consent to the installation of a smartwireless meter; (ii) charge a fee, assessment, or higher rate to a customer who does not consent to the installation of a smartwireless meter; or (iii) provide or offer to provide discounted rates to a customer in exchange for obtaining the customer's consent to install a smartwireless meter.

1. For any smartwireless meter or equivalent technology installed by a public utility prior to July 1, 2023, the public utility shall provide notify, by the United States Postal Service, the customer an opportunity to consent to the previous installation in writing that a wireless meter, or wireless equivalent technology, has been installed on the customer's premises, and that:

- a. the installation and use of a wireless meter and equivalent technology is not required by state law;

- b. the customer can request that it be uninstalled, and in the case of a meter, the selection of a replacement meter is at the sole discretion of the customer;
- c. an electromechanical analog meter and an Ethernet connection meter are two of the options for a replacement meter;
- d. the wireless meter would be uninstalled and the replacement meter provided and installed without cost to the customer; and
- e. the equivalent technology would be removed from the premises and relocated without cost to the customer.
- f. Such notice shall be sent to the customer within 30 days of the effective date of this subsection.

2. For any wireless meter, meter functionality alteration, or equivalent technology installed by a public utility after July 1, 2023, upon receipt of a customer's written affirmative request for a wireless meter installation, the public utility shall notify, by the United States Postal Service, the customer in writing that:

- a. the installation and use of a wireless meter and equivalent technology is not required by state law;
- b. the customer can request that it be uninstalled, and in the case of a meter, the selection of a replacement meter is at the sole discretion of the customer;
- c. an electromechanical analog meter and an Ethernet connection meter are two of the options for a replacement meter;
- d. a wireless meter would be uninstalled and the replacement meter provided and installed without cost to the customer; and
- e. any equivalent technology would be removed from the premises and relocated without cost to the customer.
- f. Such notice shall be sent to the customer at least 30 days prior to any installation of a wireless meter, meter functionality alteration or equivalent technology.

3. Each public utility shall provide the customer who has not affirmatively requested a wireless meter a replacement meter of the customer's selection without cost to the customer, to include an electromechanical analog meter and an Ethernet connection meter. The selection of a replacement meter shall be in the sole discretion of the customer.

4. Each public utility shall ~~offer to remove a smart~~ wireless meter or an altered meter that was installed without obtaining the customer's consent ~~without cost to the customer that was installed without obtaining the customer's consent~~, and provide and install a replacement meter of the customer's selection without cost to the customer, within 14 days of receipt of the customer's removal request. For any meter or meter functionality alteration installed by a public utility after obtaining a customer's consent, each public utility shall remove a wireless meter or an altered meter, after a customer has revoked consent, within 14 days of receipt of a customer's removal request.

5. Each public utility shall remove equivalent technology from the premises of any customer who has requested the removal of a wireless meter, or of any customer who has requested the removal of equivalent technology, and the public utility shall relocate such equivalent

technology without cost to any customer, within 14 days of receipt of a customer's removal request.

D. For the purposes of this subsection, the following words and terms shall have the following meaning:

1. "smart Wireless meter" (also referred to as a smart meter, automated meter reading (AMR) technology, advanced metering technology (AMT), advanced metering infrastructure (AMI), or encoder receiver transmitter (ERT)) means a public utility water, gas or electricity meter ~~is interconnected through a secured Internet network connection, telephone connection, or radio frequency connection between a customer's premises and the public utility, facilitating more accurate and accessible information regarding water, gas, or electricity usage; peak event notifications; and reports and savings summaries.~~ with electronic components or any electric or battery operated meter that is capable of measuring, recording, and sending utility data by means of a wireless signal from a utility customer to a public utility in a manner utilizing one-way communication, two-way communication, or a combination of one-way and two-way communication either through the meter itself, a radio frequency (RF) mesh network or through a device ancillary to the meter.
2. An "electromechanical analog meter" (also referred to as an analog meter or an analogue meter) means a utility meter requiring that all of the following criteria are satisfied: (i) the meter is purely electric and mechanical, (ii) the meter has no transmitter or receiver installed on or in the meter, (iii) the meter has no power line communications, (iv) the meter has no switch mode power supply, (v) the meter does not generate any radio frequency radiation exposure and (vi) the meter is not capable of receiving or transmitting any communications, data or otherwise. Further, an electromechanical analog meter that contains a transmitter or receiver, switch mode power supply, or has the ability to receive or transmit data shall not satisfy the foregoing requirements, even if the public utility claims that any such or similar alterations or additions to the analog meter are disabled or otherwise not in use.
3. An "Ethernet connection meter" (also referred to as an Ethernet meter) means a utility meter requiring that all of the following criteria are satisfied: (i) the meter has no wireless transmitter and receiver installed on or in the meter, (ii) the meter has no power line communications, (iii) the meter has no switch mode power supply, (iv) the meter does not generate any radio frequency radiation exposure, (v) the meter communicates utility consumption data measured by the meter solely with a wired Ethernet connection, and (vi) the meter communicates such data solely to the public utility and not to any third party. Further, an Ethernet meter that contains a transmitter or receiver, switch mode power supply, or has the ability to receive or transmit data by any means other than the wired Ethernet connection shall not satisfy the foregoing requirements, even if the public utility claims that any such or similar alterations or additions to, or components of, an Ethernet meter are disabled or otherwise not in use.

4. “Equivalent technology” means utility infrastructure, such as a repeater or collector, installed on structures, poles or in any other manner on or in the premises of a customer that communicates meter usage and consumption data using wireless frequencies.
5. “Meter functionality alteration” (also referred to as an altered meter) means an alteration or addition to an existing meter that adds wireless capability or increases wireless data capacity.

**§ 56-232. Public utility and schedules defined.**

A. The term "public utility" as used in §§ 56-233 to 56-240, 56-245 to 56-245.1 and 56-246 to 56-250:

1. Shall mean and embrace every corporation (other than a municipality), company, individual, or association of individuals or cooperative, their lessees, trustees, or receivers, appointed by any court whatsoever, that now or hereafter may own, manage or control any plant or equipment or any part of a plant or equipment within the Commonwealth for the conveyance of telephone messages or for the production, transmission, delivery, or furnishing of heat, chilled air, chilled water, light, power, or water, or sewerage facilities, either directly or indirectly, to or for the public.

2. Notwithstanding any provision of subdivision 1 of this subsection or subsection G of § 13.1-620, shall also include any governmental entity established pursuant to the laws of any other state, corporation (other than a municipality established under the laws of this Commonwealth), company, individual, or association of individuals or cooperative, their lessees, trustees, or receivers, appointed by any court whatsoever, that at any time owns, manages or controls any plant or equipment, or any part thereof, located within the Commonwealth, which plant or equipment is used in the provision of sewage treatment services to or for an authority as defined in § 15.2-5101; however, the Commission shall have no jurisdiction to regulate the rates, terms and conditions of sewage treatment services that are provided by any such public utility directly to persons pursuant to the terms of a franchise agreement between the public utility and a municipality established under the laws of this Commonwealth.

**§ 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.

(Expires December 31, 2023) "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 electric energy directly to retail customers.

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

"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.

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

"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 the Commission determines that the net present value of the benefits exceeds the net present value of the costs as determined by not less than any three 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 be approved if the net present value of the benefits exceeds the net present value of the costs as determined by not less than any three of the four tests. If the Commission determines that an energy efficiency program or portfolio of programs is not in the public interest, its final order shall include all work product and analysis conducted by the Commission's staff in relation to that program, including testimony relied upon by the Commission's staff, that has bearing upon the Commission's decision. If the Commission reduces the proposed budget for a program or portfolio of programs, its final order shall include an analysis of the impact such 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 (BTUs), of the renewable thermal energy at the point of transfer to 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.

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

"Solar energy system" means a system of components that produces heat or 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.

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

"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.

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