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HOUSE BILL NO. 2073

Offered January 14, 2015

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A BILL to amend and reenact § 56-594 of the Code of Virginia, relating to electric utilities; net energy metering programs; energy balancing devices.

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Referred to Committee on Commerce and Labor

Be it enacted by the General Assembly of Virginia:**1. That § 56-594 of the Code of Virginia is amended and reenacted as follows:****§ 56-594. Net energy metering provisions.**

A. The Commission shall establish by regulation a ~~program~~ *programs* that affords eligible afford:

1. Eligible customer-generators the opportunity to participate in net energy metering, and a program, to begin no later than July 1, 2014, for customers of investor-owned utilities and no later than July 1, 2015, for customers of electric cooperatives, to afford eligible;

2. Eligible agricultural customer-generators the opportunity to participate in net energy metering, which program shall begin no later than July 1, 2014, for such customers of investor-owned utilities and no later than July 1, 2015, for such customers of electric cooperatives; and

3. Eligible energy balancing customers the opportunity to participate in net energy metering, which program shall begin no later than July 1, 2016, for such customers of investor-owned utilities and no later than July 1, 2017, for such customers of electric cooperatives.

The regulations may include, but need not be limited to, requirements for (i) ~~retail sellers electric utilities~~; (ii) owners or operators of distribution or transmission facilities; (iii) ~~providers of default service~~; (iv) eligible customer-generators; ~~(v)~~ (iv) eligible agricultural customer-generators; (v) eligible energy balancing customers; or (vi) any combination of the foregoing, as the Commission determines will facilitate the provision of net energy metering, provided that the Commission determines that such requirements do not adversely affect the public interest.

B. For the purpose of this section:

"Eligible agricultural customer-generator" means a customer that operates a renewable energy generating facility as part of an agricultural business, which generating facility (i) uses as its sole energy source solar power, wind power, or aerobic or anaerobic digester gas; (ii) does not have an aggregate generation capacity of more than 500 kilowatts; (iii) is located on land owned or controlled by the agricultural business; (iv) is connected to the customer's wiring on the customer's side of its interconnection with the ~~distributor electric utility~~; (v) is interconnected and operated in parallel with an electric company's utility's transmission and distribution facilities; and (vi) is used primarily to provide energy to metered accounts of the agricultural business. An eligible agricultural customer-generator may be served by multiple meters that are located at separate but contiguous sites, such that the eligible agricultural customer-generator may aggregate in a single account the electricity consumption and generation measured by the meters, provided that the same utility serves all such meters. The aggregated load shall be served under the appropriate tariff.

"Eligible customer-generator" means a customer that owns and operates, or contracts with other persons to own, operate, or both, an electrical generating facility that (i) has a capacity of not more than 20 kilowatts for residential customers and 500 kilowatts for nonresidential customers unless a utility elects a higher capacity limit for such a facility; (ii) uses as its total source of fuel renewable energy, as defined in § 56-576; (iii) is located on the customer's premises and is connected to the customer's wiring on the customer's side of its interconnection with the ~~distributor electric utility~~; (iv) is interconnected and operated in parallel with an electric company's transmission and distribution facilities; and (v) is intended primarily to offset all or part of the customer's own electricity requirements.

"Eligible energy balancing customer" means a customer that owns an energy balancing device that is (i) located on the customer's premises, (ii) connected to the customer's wiring on the customer's side of its interconnection with the electric utility, and (iii) interconnected and operated in parallel with an electric utility's transmission and distribution facilities. A customer shall not qualify as an eligible energy balancing customer unless (a) the operation of its energy balancing device provides a service of value to the electric utility or regional transmission entity, including spinning reserve, frequency regulation, distribution system support, reactive power, demand response, or other electric grid services; (b) discharge from the energy balancing device to the electric grid meets all requirements for safety, including anti-islanding, and power quality established pursuant to the IEEE 1547-2003 Standard for

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59 *Interconnecting Distributed Resources with Electric Power Systems or SAE Standard J3072, or*
60 *successor standards, approved by the Institute of Electrical and Electronics Engineers Standards Board*
61 *or the Society of Automotive Engineers, as appropriate; (c) the electric utility and the customer have*
62 *entered into an agreement pursuant to which the electric utility undertakes to credit the customer for*
63 *electricity fed back to the electric grid by operation of the energy balancing device as provided in*
64 *subsection G; and (d) the aggregate net energy flows from the customer's energy balancing device over*
65 *any net metering period result in a net energy inflow to the customer's premises.*

66 *"Energy balancing device" means (i) a grid-integrated electric vehicle or (ii) an electric battery*
67 *consisting of one or more electrochemical cells that convert stored chemical energy into electrical*
68 *energy and that absorb and return energy to the electric grid on either (a) a second-to-second response*
69 *basis that provides frequency regulation or (b) a longer-term daily response basis that stores excess*
70 *energy from the electric grid during periods of excess supply and then returns that energy to the electric*
71 *grid during peak periods of demand.*

72 *"Grid-integrated electric vehicle" means a battery-run motor vehicle that has the ability for two-way*
73 *power flow between the vehicle and the electric grid and the communications hardware and software*
74 *that allow for the external control of battery charging and discharging by an electric utility, an regional*
75 *transmission entity, or an aggregator.*

76 *"Net energy metering" means measuring the difference, over the net metering period, between (i)*
77 *electricity supplied to an eligible customer-generator or eligible agricultural customer-generator a net*
78 *metering customer from the electric grid and (ii) the electricity generated and fed back to the electric*
79 *grid by the eligible customer-generator or eligible agricultural customer-generator net metering customer.*

80 *"Net metering customer" means any eligible customer-generator, eligible agricultural*
81 *customer-generator, or eligible energy balancing customer.*

82 *"Net metering customer's system" means (i) with regard to an eligible customer-generator or eligible*
83 *agricultural customer-generator, its electrical generating facility and appurtenant equipment and (ii)*
84 *with regard to an eligible energy balancing customer, its energy balancing device and appurtenant*
85 *equipment.*

86 *"Net metering period" means the 12-month period following the date of final interconnection of the*
87 *eligible customer-generator's or eligible agricultural customer-generator's net metering customer's system*
88 *with an electric service provider, and each 12-month period thereafter.*

89 *"Regional transmission entity" means the regional transmission entity of which an electric utility is a*
90 *member pursuant to §§ 56-577 and 56-579.*

91 C. The Commission's regulations shall ensure that the metering equipment installed for net metering
92 shall be capable of measuring the flow of electricity in two directions. Such regulations shall allocate
93 fairly the cost of such equipment and any necessary interconnection. ~~An eligible customer-generator's~~
94 ~~electrical generating~~ *Each net metering customer's system; and each electrical generating system of an*
95 ~~eligible agricultural customer-generator,~~ shall meet all applicable safety and performance standards
96 established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, *the*
97 *Society of Automotive Engineers,* and accredited testing laboratories such as Underwriters Laboratories.
98 Beyond the requirements set forth in this section, ~~an eligible customer-generator or eligible agricultural~~
99 ~~customer-generator a net metering customer~~ whose ~~electrical generating~~ system meets those standards
100 and rules shall bear the reasonable cost, if any, as determined by the Commission, to ~~(a)~~ (i) install
101 additional controls, ~~(b)~~ (ii) perform or pay for additional tests, ~~(c)~~ or (iii) purchase additional liability
102 insurance.

103 D. The Commission shall establish minimum requirements for contracts to be entered into by the
104 parties to net metering arrangements. Such requirements shall protect the ~~eligible customer-generator or~~
105 ~~eligible agricultural customer-generator net metering customer~~ against discrimination by virtue of its
106 status as ~~an eligible customer-generator or eligible agricultural customer-generator, a net metering~~
107 ~~customer~~ and permit customers that are served on time-of-use tariffs that have electricity supply demand
108 charges contained within the electricity supply portion of the time-of-use tariffs to participate as ~~an~~
109 ~~eligible customer-generator or eligible agricultural customer-generator net metering customers.~~
110 Notwithstanding the cost allocation provisions of subsection C, ~~eligible customer-generators or eligible~~
111 ~~agricultural customer-generators net metering customers~~ served on demand charge-based time-of-use
112 tariffs shall bear the incremental metering costs required to net meter such customers.

113 E. If electricity generated by an eligible customer-generator or eligible agricultural customer-generator
114 over the net metering period exceeds the electricity consumed by the eligible customer-generator or
115 eligible agricultural customer-generator, the *eligible* customer-generator or eligible agricultural
116 customer-generator shall be compensated for the excess electricity if the ~~entity~~ *contracting to receive*
117 ~~such electric energy~~ *electric utility* and the eligible customer-generator or eligible agricultural
118 customer-generator enter into a power purchase agreement for such excess electricity. Upon the written
119 request of the eligible customer-generator or eligible agricultural customer-generator, the ~~supplier that~~
120 ~~serves the eligible customer-generator or eligible agricultural customer-generator~~ *electric utility* shall

enter into a power purchase agreement with the requesting eligible customer-generator or eligible agricultural customer-generator that is consistent with the minimum requirements for contracts established by the Commission pursuant to subsection D. The power purchase agreement shall obligate the ~~supplier~~ *electric utility* to purchase such excess electricity at the rate that is provided for such purchases in a net metering standard contract or tariff approved by the Commission, unless the parties agree to a higher rate. The eligible customer-generator or eligible agricultural customer-generator owns any renewable energy certificates associated with its electrical generating facility; however, at the time that the eligible customer-generator or eligible agricultural customer-generator enters into a power purchase agreement with its ~~supplier~~ *electric utility*, the eligible customer-generator or eligible agricultural customer-generator shall have a one-time option to sell the renewable energy certificates associated with such electrical generating facility to its ~~supplier~~ *electric utility* and be compensated at an amount that is established by the Commission to reflect the value of such renewable energy certificates. Nothing in this section shall prevent the eligible customer-generator or eligible agricultural customer-generator and the ~~supplier~~ *electric utility* from voluntarily entering into an agreement for the sale and purchase of excess electricity or renewable energy certificates at mutually-agreed upon prices if the eligible customer-generator or eligible agricultural customer-generator does not exercise its option to sell its renewable energy certificates to its ~~supplier~~ *electric utility* at Commission-approved prices at the time that the eligible customer-generator or eligible agricultural customer-generator enters into a power purchase agreement with its ~~supplier~~ *electric utility*. All costs incurred by the ~~supplier~~ *electric utility* to purchase excess electricity and renewable energy certificates from eligible customer-generators or eligible agricultural customer-generators shall be recoverable through its Renewable Energy Portfolio Standard (RPS) rate adjustment clause, if the ~~supplier~~ *electric utility* has a Commission-approved RPS plan. If not, then all costs shall be recoverable through the ~~supplier's~~ *electric utility's* fuel adjustment clause. For purposes of this ~~section~~ *subsection*, "all costs" shall be defined as the rates paid to the eligible customer-generator or eligible agricultural customer-generator for the purchase of excess electricity and renewable energy certificates and any administrative costs incurred to manage the eligible customer-generator's or eligible agricultural customer-generator's power purchase arrangements. The net metering standard contract or tariff shall be available to eligible customer-generators or eligible agricultural customer-generators on a first-come, first-served basis in each electric distribution company's Virginia service area until the rated generating capacity owned and operated by eligible customer-generators or eligible agricultural customer-generators in the state reaches one percent of each electric distribution company's adjusted Virginia peak-load forecast for the previous year, and shall require the ~~supplier~~ *electric utility* to pay the eligible customer-generator or eligible agricultural customer-generator for such excess electricity in a timely manner at a rate to be established by the Commission.

F. Any residential eligible customer-generator or eligible agricultural customer-generator who owns and operates, or contracts with other persons to own, operate, or both, an electrical generating facility with a capacity that exceeds 10 kilowatts shall pay to its ~~supplier~~ *electric utility*, in addition to any other charges authorized by law, a monthly standby charge. The amount of the standby charge and the terms and conditions under which it is assessed shall be in accordance with a methodology developed by the ~~supplier~~ *electric utility* and approved by the Commission. The Commission shall approve a ~~supplier's~~ *an electric utility's* proposed standby charge methodology if it finds that the standby charges collected from all such eligible customer-generators and eligible agricultural customer-generators allow the ~~supplier~~ *electric utility* to recover only the portion of the ~~supplier's~~ *electric utility's* infrastructure costs that are properly associated with serving such eligible customer-generators or eligible agricultural customer-generators. Such an eligible customer-generator or eligible agricultural customer-generator shall not be liable for a standby charge until the date specified in an order of the Commission approving its ~~supplier's~~ *electric utility's* methodology.

G. *Notwithstanding the definition of net energy metering in subsection B, the aggregate net energy flows from an eligible energy balancing customer's energy balancing device to the electric grid and from the grid to the customer over any net metering period shall result in net energy to the eligible energy balancing customer's premises. Therefore, the eligible energy balancing customer shall not be compensated for excess electricity over the net metering period. However, over shorter time intervals, the eligible energy balancing customer may return electric energy to the grid. Over time intervals shorter than the net metering period, the rate at which an eligible energy balancing customer shall be credited for electricity added to the grid from such customer's energy balancing device shall be the same as the rate charged to the eligible energy balancing customer for electricity provided by the electric utility to the eligible energy balancing customer for such customer's consumption at its premises pursuant to the applicable tariff.*

H. *An aggregator is explicitly permitted to combine two or more eligible energy balancing customers and sell energy balancing services; those services may be sold to a regional transmission entity, under*

182 *wholesale rules and rates as regulated by the Federal Energy Regulatory Commission, or those services*
183 *may be sold to an electric utility under rules and rates as regulated by the Commission.*