No. 99. An act relating to self-generation and net metering.

(H.702)

It is hereby enacted by the General Assembly of the State of Vermont:

* * * Net Metering Amendments for 2014 * * *

Sec. 1. 30 V.S.A. § 219a is amended to read:

§ 219a. SELF-GENERATION AND NET METERING

- (a) As used in this section:
- (1) "Capacity" means the rated electrical nameplate for a net metering system, except that for a solar net metering system, the term shall have the same meaning as set forth for a solar energy plant under "plant capacity" in section 8002 of this title.
- (2) "Customer" means a retail electric consumer who uses a net metering system.
- (3) "Environmental attributes" shall have the same meaning as under section 8002 of this title.
- (4) "Facility" means a structure or piece of equipment and associated machinery and fixtures that generates electricity. A group of structures or pieces of equipment shall be considered one facility if it uses the same fuel source and infrastructure and is located in close proximity. Common ownership shall be relevant but not sufficient to determine that such a group constitutes a facility.

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(2)(5) "Net metering" means measuring the difference between the electricity supplied to a customer and the electricity fed back by a net metering system during the customer's billing period:

- (A) using a single, nondemand meter or such other meter that would otherwise be applicable to the customer's usage but for the use of net metering; or
- (B) on farm or group systems, using multiple meters as specified in this chapter. The calculation will be made by converting all meters to a nondemand, nontime-of-day meter, and equalizing them to the tariffed kilowatt-hour rate.
- (3)(6) "Net metering system" means a facility for generation of electricity that:
 - (A) is of no more than 500 kW capacity;
- (B) operates in parallel with facilities of the electric distribution system;
- (C) is intended primarily to offset the customer's own electricity requirements; and
- (D) is located on the customer's premises or, in the case of a group net metering system, on the premises of a customer who is a member of the group; and

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(E)(i) employs a renewable energy source as defined in subdivision 8002(17) of this title; or

- (ii) is a qualified micro-combined heat and power system of 20 kW or fewer that meets the definition of combined heat and power in 10 V.S.A. § 6523(b) subsection 8015(b) of this title and may use any fuel source that meets air quality standards.
- (4) "Facility" means a structure or piece of equipment and associated machinery and fixtures that generates electricity. A group of structures or pieces of equipment shall be considered one facility if it uses the same fuel source and infrastructure and is located in close proximity. Common ownership shall be relevant but not sufficient to determine that such a group constitutes a facility.
 - (5)(7) "kW" means kilowatt or kilowatts (AC).
 - (6)(8) "kWh" means kW hour or hours.
 - (7)(9) "MW" means megawatt or megawatts (AC).
- (10) "Tradeable renewable energy credits" shall have the same meaning as under section 8002 of this title.
- (b) A customer shall pay the same rates, fees, or other payments and be subject to the same conditions and requirements as all other purchasers from the electric company in the same rate-class, except as provided for in this

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section, and except for appropriate and necessary conditions approved by the Board for the safety and reliability of the electric distribution system.

- (c) The Board shall establish by rule or order standards and procedures governing application for, and issuance or revocation of a certificate of public good for net metering systems under the provisions of section 248 of this title. A net metering system shall be deemed to promote the public good of the State if it is in compliance with the criteria of this section, and board rules or orders. In developing such rules or orders, the Board:
- (1) With respect to a solar net metering system of 10 15 kW or less, the Board shall provide that the system may be installed ten days after the customer's submission to the Board and the interconnecting electric company of a completed registration form and certification of compliance with the applicable interconnection requirements. Within that ten-day period, the interconnecting electric company may deliver to the customer and the Board a letter detailing any issues concerning the interconnection of the system. The customer shall not commence construction of the system prior to the passage of this ten-day period and, if applicable, resolution by the Board of any interconnection issues raised by the electric company in accordance with this subsection. If the ten-day period passes without delivery by the electric company of a letter that raises interconnection issues in accordance with this subsection, a certificate of public good shall be deemed issued on the 11th day

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without further proceedings, findings of fact, or conclusions of law, and the customer may commence construction of the system. On request, the Clerk of the Board promptly shall provide the customer with written evidence of the system's approval. For the purpose of this subdivision, the following shall not be included in the computation of time: Saturdays, Sundays, State legal holidays under 1 V.S.A. § 371(a), and federal legal holidays under 5 U.S.C. § 6103(a).

- (2) With respect to a net metering system for which a certificate of public good is not deemed issued under subdivision (1) of this subsection, the Board:
- (A) may waive the requirements of section 248 of this title that are not applicable to net metering systems, including criteria that are generally applicable to public service companies as defined in this title;
- (B) may modify notice and hearing requirements of this title as it deems appropriate;
- (C) shall seek to simplify the application and review process as appropriate; and
- (D) shall find that such rules are consistent with state <u>State</u> power plans.
- (3) The Board shall require that the registration or application for approval of a net metering system declare whether the customer retains

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ownership of the environmental attributes of any electricity generated by the net metering system or transfers ownership of those attributes to the interconnecting electric company.

* * *

- (e) Consistent with the other provisions of this title, electric energy measurement for net metering systems using a single nondemand meter that are not group systems shall be calculated in accordance with subdivisions (1)-(3) of this subsection, and electric energy measurement for net metering systems that use other types of meters shall be calculated in accordance with subdivision (4) of this subsection.
- (1) The electric company which serves the net metering customer shall measure the net electricity produced or consumed during the customer's billing period, in accordance with normal metering practices.
- (2) If the electricity supplied by the electric company exceeds the electricity generated by the customer and fed back to the electric distribution system during the billing period, the customer shall be billed for the net electricity supplied by the electric company, in accordance with normal metering practices.
- (3) If electricity generated by the customer exceeds the electricity supplied by the electric company, each of the following shall apply:

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(A) The electric company shall calculate a monetary credit to the customer by multiplying the excess kWh generated during the billing period by the kWh rate paid by the customer for electricity supplied by the company and shall apply the credit to any remaining charges on the customer's bill for that period; If the applicable rate schedule includes inclining block rates:

- (i) for a net metering system that does not use solar energy, the rate used for this calculation shall be a blend of those rates determined by adding together all of the revenues to the company during a recent test year from kWh sold under those block rates and dividing the sum by the total kWh sold by the company at those rates during that same year; and
- (ii) for a solar net metering system, the rate used for this calculation:
- (I) during the ten years immediately following the system's installation shall be the highest of those block rates and, after this ten-year period, shall be the blended rate in accordance with subdivision (i) of this subdivision (A); or
- (II) if the electric company's highest block rate exceeds the adder sum described in subdivision (h)(1)(K) of this section, then for the first year immediately following the system's installation, the electric company may use the adder sum to calculate the credit in lieu of the highest block rate, provided that during the following nine years, the electric company shall adjust

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the system's credit by a percentage equal to the percentage of each change in its highest block rate during the same period, and after the first ten years following the system's installation, the rate used to calculate the credit shall be the blended rate in accordance with subdivision (i) of this subdivision (A).

- (B) If application to such charges does not use the entire balance of the credit, the remaining balance of the credit shall appear on the customer's bill for the following billing period; and.
- (C) Any accumulated credits shall be used within 12 months, or shall revert to the electric company, without any compensation to the customer.

 Power reverting to the electric company under this subdivision (3) shall be considered SPEED resources under section 8005 of this title.
- (4) For a net metering system serving a customer on a demand or time-of-use rate schedule, the manner of measurement and the application of bill credits for the electric energy produced or consumed shall be substantially similar to that specified in this subsection for use with a single nondemand meter. However, if such a net metering system is interconnected directly to the electric company through a separate meter whose primary purpose is to measure the energy generated by the system:
- (A) The bill credits shall apply to all kWh generated by the net metering system and shall be calculated as if the customer were charged the kWh rate component of the interconnecting company's general residential rate

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schedule that consists of two rate components: a service charge and a kWh rate, excluding time-of-use rates and demand rates.

(B) If a company's general residential rate schedule includes inclining block rates, the residential rate used for this calculation shall be the highest of those block rates a rate calculated in the same manner as under subdivision (3)(A) of this subsection (e).

* * *

(h)(1) An electric company:

- (A) Shall make net metering available to any customer using a net metering system or group net metering system on a first-come, first-served basis until the cumulative output capacity of net metering systems equals 4.0 15 percent of the distribution company's peak demand during 1996; or the peak demand during the most recent full calendar year, whichever is greater.

 However, after reaching this cap, an electric company may continue to accept solar net metering systems of 15 kW or less without prior Board approval. The For other net metering systems, the Board may raise the 4.0 15 percent cap on petition of an electric company. In determining whether to raise the cap, the Board shall consider the following:
- $\mbox{(i) the costs and benefits of net metering systems already} \\ \mbox{connected to the system; } \mbox{and} \\$

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(ii) the potential costs and benefits of exceeding the cap, including potential short- and long-term impacts on rates, distribution system costs and benefits, reliability, and diversification costs and benefits; and

(iii) the environmental benefits and costs;

* * *

(E) May require a customer to comply with generation interconnection, safety, and reliability requirements, as determined by the Public Service Board by rule or order, and may charge reasonable fees for interconnection, establishment, special metering, meter reading, accounting, account correcting, and account maintenance of net metering arrangements of greater than 15 kW capacity;

* * *

(I) [Deleted.] At the option of a net metering customer of the company, may receive ownership of the environmental attributes of electricity generated by the customer's net metering system, including ownership of any associated tradeable renewable energy credits. If a customer elects this option, the company shall retain ownership of and shall retire the attributes and credits received from the customer, which shall apply toward compliance with any statutes enacted or rules adopted by the State requiring the company to own the environmental attributes of renewable energy.

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(J) May in its rate schedules offer credits or other incentives that may include monetary payments to net metering customers. These credits or incentives shall not displace the benefits provided to such customers under subsections (e) and (f) of this section.

- (K) Except as provided in subdivision (v)_of this subdivision (1)(K), shall Shall in its rate schedules offer a credit to each net metering customer using solar energy that shall apply to each kWh generated by the customer's solar net metering system and that shall not displace the benefits provided to such customers under subsections (e) and (f) of this section.
- (i) The credit required by this subdivision (K) shall be \$0.20 the adder sum minus the residential rate per kWh charged by the company as of the date it files with the Board a proposed modification to its rate schedules to effect this subdivision (K) or to revise a credit previously instituted under this subdivision (K). For the purposes of Under this subdivision (K), the:
- (I) The adder sum shall be \$0.20 if the solar net metering system is of 15 kW capacity or less and otherwise shall be \$0.19.
- (II) The residential rate shall be the kWh rate charged by the company under its general residential rate schedule that consists of two rate components: a service charge and a kWh rate, and shall exclude time-of-use rates and demand rates.

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(III) If a company's general residential rate schedule includes inclining block rates, the residential rate shall be the highest of those block rates.

- (IV) Notwithstanding the basis for this credit calculation, the amount of the credit shall not fluctuate with changes in the underlying residential rate used to calculate the amount.
- (ii) The electric company shall apply the credit calculated in accordance with subdivision (i) of this subdivision (1)(K) to generation from each net metering system using solar energy regardless of the customer's rate class. A credit under this subdivision (K) shall be applied to all charges on the customer's bill from the electric company and shall be subject to the provisions of subdivisions (e)(3)(B)(credit for unused balance) and (C)(12-month reversion) and (f)(3)(credit for excess generation; group net metering) of this section.
- (iii) An electric company's proposed modification to a rate schedule to offer a credit under this subdivision (K) and any investigation initiated by the Board or party other than the company of an existing credit contained in such a rate schedule shall be reviewed in accordance with the procedures set forth in section 225 of this title, except that:

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(I) A company's proposed modification shall take effect on filing with the Board and shall not be subject to suspension under section 226 of this title:

- (II) Such a modification or investigation into an existing credit shall not require review of the company's entire cost of service; and
- (III) Such a modification or existing credit may be altered by the Board for prospective effect only commencing with the date of the Board's decision.
- electric company shall file a proposed modification to its rate schedule that complies with this subdivision (K). Such proposed modification, as it may be revised by the Board, shall not be changed for two years starting with the date of the Board's decision on the modification. After the passage of that two-year period, further modifications to the amount of a credit under this subdivision may be made in accordance with subdivisions (i) (iii) of this subdivision (1)(K).
- (v) An electric company shall not be required to offer a credit under this subdivision (K) if, as of the effective date of this subdivision, the result of the calculation described in subdivision (i) of this subdivision (1)(K) is zero or less.

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(vi)(v) A solar net metering system shall receive the amount of the credit under this subdivision (K) that is in effect for the service territory in which the system is installed as of the date of the system's installation and shall continue to receive that amount for not less than 10 years after that date regardless of any subsequent modification to the credit as contained in the electric company's rate schedules.

(vii)(vii) Not later than 30 days after Board approval of an If a solar net metering system placed into service prior to the interconnecting electric company's first rate schedule proposed to comply with this subdivision (1)(K), the company shall offer the amount of the credit contained in such rate schedule to each solar net metering system placed into service prior to the date on which the company submitted the proposed schedule to the Board. Each system that accepts this offer accepted that rate schedule, the system shall receive the credit for not less than 10 years after the date of such that acceptance, provided that the system remains in service, and regardless of any subsequent modification to the credit as contained in the company's rate schedules.

(vii) Should an additional meter at the premises of the net metering customer be necessary to implement this subdivision $\frac{\text{(vii)}(K)}{\text{(K)}}$, or should that meter need replacement because it fails or is destroyed, the net

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metering customer shall not pay a charge greater than the cost of the equipment and installation of the additional or replacement meter.

- (2) All such requirements or credits or other incentives shall be pursuant to and governed by a tariff approved by the board and any applicable Board that is consistent with Board rule rules under this section, which tariffs and rules shall be designed in a manner reasonably likely to facilitate net metering. With respect to a credit or incentive under subdivision (1)(J) (optional credit or incentive) or (K) (solar credit) of this subsection (h) that is provided to a net metering system that constitutes new renewable energy under subdivision 8002(4) of this title:
- (A) If the credit or incentive applies to each kWh generated by the system, then the system's energy production shall count toward the goals and requirements of subsection 8005(d) of this title.
- (B) If the credit or incentive applies only to the system's net energy production supplied to the company, then the increment of net energy production supplied by the customer to the company through a net metering system that is supported by such additional credit or incentive shall count toward the goals and requirements of subsection 8005(d) of this title.
- (i)(1) A net metering system using photovoltaic generation shall conform to applicable electrical safety, power quality, and interconnection requirements established by the National Electrical Code, the Institute of Electrical and

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Electronic Engineers, and Underwriters Laboratories. The customer shall be responsible for installation, testing, accuracy, and maintenance of net metering equipment.

- (2) By March 1, 1999, the The Board shall adopt, by rule or order, electrical safety, power quality, and interconnection requirements for net metering equipment which uses generation technologies other than photovoltaic technology. In developing safety rules, and any amendments to those rules, the Board shall solicit input from representatives of utilities and agents representing line workers.
- (3) The Board may adopt, by rule or order, additional safety, power quality, and interconnection requirements for customers that the Board determines are necessary to protect public safety and system reliability.
- (4) Pending the effective date of requirements adopted by the Board under subsection (c) of this section and subdivision (2) of this subsection, an electric company may allow a customer to interconnect a net metering system, to be operated as provided in this section, if the company is reasonably satisfied concerning the safety and power quality of the system. The customer may then operate the net metering system pending application for and receipt of a certificate of public good under subsection (c) of this section, provided such application shall be made within three months after the effective date of requirements adopted by the Board under subsection (c).

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(5) An electric company may, at its own expense, and upon reasonable written notice to the customer, perform such testing and inspection of a net metering system in order to confirm that the system conforms to applicable electrical safety, power quality, and interconnection requirements.

(j) [Deleted.] [Repealed.]

* * *

- (m)(1) A facility for the generation of electricity to be consumed primarily by the Military Department established under 3 V.S.A. § 212 and 20 V.S.A. § 361(a) or the National Guard as defined in 32 U.S.C. § 101(3), and installed on property of the Military Department or National Guard located in Vermont, shall be considered a net metering system for purposes of this section if it has a capacity of 2.2 MW or less and meets the provisions of subdivisions (a)(3)(B) through (E) (a)(6)(B)–(D) of this section.
- (2) If the interconnecting electric company agrees, a solar facility or group of solar facilities for the generation of electricity, to be installed by one or more municipalities on a closed landfill, shall be considered a net metering system for purposes of this section if the facility or group of facilities has a total capacity of 5 MW or less and meets the provisions of subdivisions

 (a)(6)(B)–(D) of this section. The facilities or group of facilities may serve as a group net metering system that includes and is limited to each participating

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municipality. In this subdivision (2), "municipality" shall have the same meaning as under 24 V.S.A. § 4551.

- (3) In addition to facilities authorized under subdivision (2) of this subsection, an interconnecting electric company may agree to one solar facility in its service territory for the generation of electricity to be installed and consumed primarily by a customer or group of customers, which shall be considered a net metering system for purposes of this section if:
- (A) the facility has a total capacity of 5 MW or less and meets the provisions of subdivisions (a)(6)(B)–(D) of this section; and
- (B) the interconnecting electric company does not undertake a pilot project under subsection (n) of this section.
- (4) Such a A facility described in this subsection shall not be subject to and shall not count toward the capacity limits of subdivisions (a)(3)(A)
 (a)(6)(A) (no more than 500 kW) and (h)(1)(A) (four 15 percent of peak demand) of this section.
- (n) As a pilot project, an electric cooperative under chapter 81 of this title may construct a solar generation facility or group of solar generation facilities to produce power to be consumed by the company or its customers and to be installed on land owned or leased by the company.
- (1) Under this pilot project, the Board shall consider the facility or group of facilities a net metering system if the cumulative capacity of the facility or

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group of facilities does not exceed five MW and each facility otherwise meets
the definition of a net metering system. In applying this definition to the
facility or group of facilities, the Board shall treat the electric cooperative's
consumption as the consumption of a customer.

- (2) As part of this pilot project, the electric cooperative may propose to the Board alternatives to the requirements of subsections (b) (same rates and charges), (e) (credits; single meter systems), (f) (credits; group net metering systems), and (g) (requirements; group net metering systems) and subdivision (h)(1)(K) (required solar incentive) of this section, including alternative credit amounts, bill procedures, and energy measurement methodologies. Using the procedures set forth in section 225 of this title, the Board may approve these alternatives if it determines that they are just and reasonable.
- (3) Under this pilot project, the electric cooperative may seek siting approval for the facility or group of facilities pursuant to the Board's order issued under subsection 8007(b) of this title, notwithstanding that subsection's limitation to plants with a plant capacity greater than 150 kW and 2.2 MW or less.
- (4) If an electric cooperative elects to implement a pilot project under this subsection, then:

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(A) the allocation of the pilot project toward the cooperative's cumulative output capacity under subdivision (h)(1)(A) of this section shall be four percent; and

- (B) any remaining unallocated capacity of the cooperative under subdivision (h)(1)(A) of this section as of the effective date of this subsection shall be allocated equally among calendar years 2014, 2015, and 2016, with any unused capacity in 2014 carried forward to and allocated equally between the other two years.
- (o) An electric company that meets and maintains the renewable energy achievement requirements of subdivision (1) of this subsection (the achievement requirements) shall obtain relief from the obligations described in subdivision (2) of this subsection by submitting to the Board a proposed rate schedule for an alternative net metering program under subdivision (3) of this subsection within 90 days of meeting the achievement requirements.
 - (1) This renewable energy achievement provision shall require that:
- (A) the cumulative output capacity of net metering systems installed in the electric company's service territory, calculated in accordance with subdivision (h)(1)(A) of this section, meets or exceeds 10 percent;
- (B) the electric company owns and has retired tradeable renewable energy credits monitored and traded on the New England Generation

 Information System or otherwise approved by the Board equivalent to

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90 percent of the company's total periodic retail sales of electricity calculated on a monthly basis commencing with the effective date of this subsection (o) and switching to an annual basis beginning one year after the effective date of this subsection; and

- (C) the electric company certifies, by annual written submission to the Board, compliance with the requirements of subdivisions (1)(A) and (B) of this subsection (o).
- (2) The obligations for which this subsection authorizes relief are the obligations to make net metering available in accordance with subsections (b) (same rates and charges), (e) (measurement; credits), (f) (credits; group net metering systems), (g) (requirements; group net metering systems), and (h) (electric company obligations; authority) of this section.
- (3) Using the procedures set forth in section 225 of this title, an electric company that meets the achievement requirements may propose to the Board a rate schedule to implement a net metering program in its service territory that may have a capacity limit that differs from the limit contained in the definition of net metering system, that may require the company to own all or a portion of the environmental attributes of generation within the program and any associated tradeable renewable energy credits, that may require customer charges or other charges to capture fixed costs necessary to support the utility's infrastructure, and that may propose alternatives to the requirements listed in

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subdivision (2) of this subsection, including alternative credit amounts, bill procedures, and energy measurement methodologies. The Board may approve this rate schedule if it determines that it is just and reasonable.

- (p) The Department of Public Service shall maintain a web page with current information on the capacity of net metering systems installed and interconnected in Vermont.
 - (1) This web page shall:
- (A) state the total number and capacity of these systems statewide, by electric company service territory, and by category of renewable energy technology such as solar or wind; and
- (B) state the progress of each electric company toward the cumulative output capacity described in subdivision (h)(1)(A) of this section.
 - (2) To effectuate this web page:
- (A) At a frequency and in the manner directed by the Department, each electric company shall report to the Department the total number and capacity of net metering systems installed and interconnected in the company's service territory, with an itemization of these systems by category of renewable energy technology.
- (B) In the first report submitted under this subdivision (2), each electric company shall provide the total number and capacity of net metering systems installed and interconnected in the company's service territory up to

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the date of the report, with an itemization of these systems by category of renewable energy.

Sec. 1a. CLOSED LANDFILL; MUNICIPAL SOLAR; PILOT PROJECT

- (a) As a pilot project, the Public Service Board shall allow one solar facility or group of solar facilities, to be installed by one or more municipalities on a closed landfill in Windham County and treated as a net metering system under 30 V.S.A. § 219a(m)(2), to serve as a group net metering system that includes not only each participating municipality but also includes members who are not a municipality.
- (b) This authority shall apply notwithstanding any provision in 30 V.S.A. § 219a(m)(2) to the contrary.
- (c) This authority shall apply only if an application for a certificate of public good under 30 V.S.A. § 248 for the solar facility or group of solar facilities is filed before January 1, 2017.
 - * * * Comprehensive Net Metering Revisions for 2017 * * *

Sec. 2. REPEAL

Effective January 1, 2017, 30 V.S.A. §§ 219a (self-generation and net metering) and 219b (net metering program expansion) are repealed.

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Sec. 3. 30 V.S.A. § 8002 is amended to read:

§ 8002. DEFINITIONS

As used in this chapter:

- (1) "Board" means the Public Service Board under section 3 of this title, except when used to refer to the Clean Energy Development Board.
- (2) "Commissioned" or "commissioning" means the first time a plant is put into operation following initial construction or modernization if the costs of modernization are at least 50 percent of the costs that would be required to build a new plant including all buildings and structures technically required for the new plant's operation. However, these terms shall not include activities necessary to establish operational readiness of a plant.
- (3) "CPI" means the Consumer Price Index for all urban consumers, designated as "CPI-U," in the northeast region, as published by the U.S. Department of Labor, Bureau of Labor Statistics.
 - (4) "Customer" means a retail electric consumer.
- (5) "Department" means the Department of Public Service under section 1 of this title, unless the context clearly indicates otherwise.
- (5)(6) "Energy conversion efficiency" means the effective use of energy and heat from a combustion process.
- (6)(7) "Environmental attributes" means the characteristics of a plant that enable the energy it produces to qualify as renewable energy and include

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any and all benefits of the plant to the environment such as avoided emissions or other impacts to air, water, or soil that may occur through the plant's displacement of a nonrenewable energy source.

- (7)(8) "Existing renewable energy" means renewable energy produced by a plant that came into service prior to or on December 31, 2004.
- (8)(9) "Greenhouse gas reduction credits" shall be as defined in section 8006a of this title.
- (10) "Group net metering system" means a net metering system serving more than one customer, or a single customer with multiple electric meters, located within the service area of the same retail electricity provider. Various buildings owned by municipalities, including water and wastewater districts, fire districts, villages, school districts, and towns, may constitute a group net metering system. A union or district school facility shall be considered in the same group net metering system with buildings of its member municipalities that are located within the service area of the same retail electricity provider that serves the facility.
 - (9)(11) "kW" means kilowatt or kilowatts (AC).
 - (10)(12) "kWh" means kW hour or hours.
 - (11)(13) "MW" means megawatt or megawatts (AC).
 - (12)(14) "MWH" means MW hour or hours.

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(15) "Net metering" means measuring the difference between the electricity supplied to a customer and the electricity fed back by the customer's net metering system during the customer's billing period:

- (A) using a single, non-demand meter or such other meter that would otherwise be applicable to the customer's usage but for the use of net metering; or
- (B) if the system serves more than one customer, using multiple meters. The calculation shall be made by converting all meters to a non-demand, non-time-of-day meter, and equalizing them to the tariffed kWh rate.
- (16) "Net metering system" means a plant for generation of electricity that:
 - (A) is of no more than 500 kW capacity;
- (B) operates in parallel with facilities of the electric distribution system;
- (C) is intended primarily to offset the customer's own electricity requirements; and
 - (D)(i) employs a renewable energy source; or
- (ii) is a qualified micro-combined heat and power system of 20 kW or fewer that meets the definition of combined heat and power in

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subsection 8015(b) of this title and uses any fuel source that meets air quality standards.

- (13)(17) "New renewable energy" means renewable energy produced by a specific and identifiable plant coming into service after December 31, 2004.
- (A) Energy from within a system of generating plants that includes renewable energy shall not constitute new renewable energy, regardless of whether the system includes specific plants that came or come into service after December 31, 2004.
- (B) "New renewable energy" also may include the additional energy from an existing renewable energy plant retrofitted with advanced technologies or otherwise operated, modified, or expanded to increase the kWh output of the plant in excess of an historical baseline established by calculating the average output of that plant for the 10-year period that ended December 31, 2004. If the production of new renewable energy through changes in operations, modification, or expansion involves combustion of the resource, the system also must result in an incrementally higher level of energy conversion efficiency or significantly reduced emissions.
- (14)(18) "Plant" means an independent technical facility that generates electricity from renewable energy. A group of newly constructed facilities, such as wind turbines, shall be considered one plant if the group is part of the same project and uses common equipment and infrastructure such as roads,

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control facilities, and connections to the electric grid. Common ownership,

contiguity in time of construction, and proximity of facilities to each other

shall be relevant to determining whether a group of facilities is part of the same

project.

- (15)(19) "Plant capacity" means the rated electrical nameplate for a plant, except that, in the case of a solar energy plant, the term shall mean the aggregate AC nameplate capacity of all inverters used to convert the plant's output to AC power.
- (16)(20) "Plant owner" means a person who has the right to sell electricity generated by a plant.
- (17)(21) "Renewable energy" means energy produced using a technology that relies on a resource that is being consumed at a harvest rate at or below its natural regeneration rate.
- (A) For purposes of this subdivision (17)(21), methane gas and other flammable gases produced by the decay of sewage treatment plant wastes or landfill wastes and anaerobic digestion of agricultural products, byproducts, or wastes shall be considered renewable energy resources, but no form of solid waste, other than agricultural or silvicultural waste, shall be considered renewable.
- (B) For purposes of this subdivision (17)(21), no form of nuclear fuel shall be considered renewable.

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(C) The only portion of electricity produced by a system of generating resources that shall be considered renewable is that portion generated by a technology that qualifies as renewable under this subdivision $(\frac{17}{21})$.

- (D) After conducting administrative proceedings, the The Board by rule may add technologies or technology categories to the definition of "renewable energy," provided that technologies using the following fuels shall not be considered renewable energy supplies: coal, oil, propane, and natural gas.
- (E) For the purposes of <u>In</u> this chapter, renewable energy refers to either "existing renewable energy" or "new renewable energy."
- (18)(22)(A) "Renewable pricing" shall mean an optional service provided or contracted for by an electric company:
 - (i) under which the company's customers may voluntarily either:
- (I) purchase all or part of their electric energy from renewable sources as defined in this chapter; or
- (II) cause the purchase and retirement of tradeable renewable energy credits on the participating customer's behalf; and
- (ii) which increases the company's reliance on renewable sources of energy beyond those the electric company would otherwise be required to provide under section 218c of this title.

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- (B) Renewable pricing programs may include:
- (i) contribution-based programs in which participating customers can determine the amount of a contribution, monthly or otherwise, that will be deposited in a Board-approved fund for new renewable energy project development;
- (ii) energy-based programs in which customers may choose all or a discrete portion of their electric energy use to be supplied from renewable resources;
- (iii) facility-based programs in which customers may subscribe to a share of the capacity or energy from specific new renewable energy resources.
- (19)(23) "Retail electricity provider" or "provider" means a company engaged in the distribution or sale of electricity directly to the public.
- (20)(24) "SPEED Facilitator" means an entity appointed by the Board pursuant to subdivision 8005(b)(1) of this title.
- (21)(25) "SPEED resources" means contracts for resources in the SPEED program established under section 8005 of this title that meet the definition of renewable energy under this section, whether or not environmental attributes are attached.

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(22)(26) "Tradeable renewable energy credits" means all of the environmental attributes associated with a single unit of energy generated by a renewable energy source where:

- (A) those attributes are transferred or recorded separately from that unit of energy;
- (B) the party claiming ownership of the tradeable renewable energy credits has acquired the exclusive legal ownership of all, and not less than all, the environmental attributes associated with that unit of energy; and
- (C) exclusive legal ownership can be verified through an auditable contract path or pursuant to the system established or authorized by the Board or any program for tracking and verification of the ownership of environmental attributes of energy legally recognized in any state and approved by the Board.
- (23)(27) "Vermont composite electric utility system" means the combined generation, transmission, and distribution resources along with the combined retail load requirements of the Vermont retail electricity providers.

Sec. 4. 30 V.S.A. § 8010 is added to read:

§ 8010. SELF-GENERATION AND NET METERING

- (a) A customer may install and operate a net metering system in accordance with this section and the rules adopted under this section.
- (b) A net metering customer shall pay the same rates, fees, or other payments and be subject to the same conditions and requirements as all other

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purchasers from the interconnecting retail electricity provider in the same

rate-class, except as this section or the rules adopted under this section may

provide, and except for appropriate and necessary conditions approved by the

Board for the safety and reliability of the electric distribution system.

- (c) In accordance with this section, the Board shall adopt and implement rules that govern the installation and operation of net metering systems.
 - (1) The rules shall establish and maintain a net metering program that:
- (A) advances the goals and total renewables targets of this chapter and the goals of 10 V.S.A. § 578 (greenhouse gas reduction) and is consistent with the criteria of subsection 248(b) of this title;
- (B) achieves a level of deployment that is consistent with the recommendations of the Electrical Energy and Comprehensive Energy Plans under sections 202 and 202b of this title, unless the Board determines that this level is inconsistent with the goals and targets identified in subdivision (1)(A) of this subsection. Under this subdivision (B), the Board shall consider the Plans most recently issued at the time the Board adopts or amends the rules;
- (C) to the extent feasible, ensures that net metering does not shift costs included in each retail electricity provider's revenue requirement between net metering customers and other customers;
- (D) accounts for all costs and benefits of net metering, including the potential for net metering to contribute toward relieving supply constraints in

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the transmission and distribution systems and to reduce consumption of fossil fuels for heating and transportation;

- (E) ensures that all customers who want to participate in net metering have the opportunity to do so:
- (F) balances, over time, the pace of deployment and cost of the program with the program's impact on rates; and
 - (G) accounts for changes over time in the cost of technology.
 - (2) The rules shall include provisions that govern:
- (A) whether there is a limit on the cumulative plant capacity of net metering systems to be installed over time and what that limit is, if any:
- (B) the transfer of certificates of public good issued for net metering systems and the abandonment of net metering systems;
- (C) the respective duties of retail electricity providers and net metering customers;
- (D) the electrical safety, power quality, interconnection, and metering of net metering systems;
- (E) the formation of group net metering systems, the resolution of disputes between group net metering customers and the interconnecting provider, and the billing, crediting, and disconnection of group net metering customers by the interconnecting provider;

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(F) the amount of the credit to be assigned to each kWh of electricity generated by a net metering customer in excess of the electricity supplied by the interconnecting provider to the customer, the manner in which the customer's credit will be applied on the customer's bill, and the period during which a net metering customer must use the credit, after which the credit shall revert to the interconnecting provider; and

- (G) the ownership and transfer of the environmental attributes of energy generated by net metering systems and of any associated tradeable renewable energy credits.
- (3) The rules shall establish standards and procedures governing application for and issuance or revocation of a certificate of public good for net metering systems under the provisions of section 248 of this title. In establishing these standards and procedures, the rules:
- (A) may waive the requirements of section 248 of this title that are not applicable to net metering systems, including criteria that are generally applicable to public service companies as defined in this title;
- (B) may modify notice and hearing requirements of this title as the Board considers appropriate;
- (C) shall seek to simplify the application and review process as appropriate; and

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(D) with respect to net metering systems that exceed 150 kW in plant capacity, shall apply the so-called "Quechee" test for aesthetic impact as described by the Vermont Supreme Court in the case of In re Halnon, 174 Vt. 515 (2002) (mem.). The rules and application form shall state the components of this test.

- (4) This section does not require the Board to adopt identical requirements for the service territory of each retail electricity provider.
- (5) Each retail electricity provider shall implement net metering in its service territory through a rate schedule that is consistent with this section and the rules adopted under this section and is approved by the Board.
- (d) On or before January 15, 2020 and every third January 15 thereafter, the Department shall submit to the Board a report that evaluates the current state of net metering in Vermont. The Department shall make this report publically available. The report shall:
- (1) analyze the current pace of net metering deployment, both statewide and within the service territory of each retail electricity provider;
- (2) after considering the goals and policies of this chapter, of 10 V.S.A. § 578 (greenhouse gas reduction), of section 202a (State energy policy) of this title, and of the Electrical Energy and Comprehensive Energy Plans under sections 202 and 202b of this title, recommend the future pace of net metering deployment statewide and within the service territory of each provider;

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(3) analyze the existence and degree of cross-subsidy between net metering customers and other customers on a statewide and on an individual provider basis;

- (4) evaluate the effect of net metering on retail electricity provider infrastructure and revenue;
- (5) evaluate the benefits to net metering customers of connecting to the provider's distribution system;
- (6) analyze the economic and environmental benefits of net metering, and the short- and long-term impacts on rates, both statewide and for each provider;
- (7) analyze the reliability and supply diversification costs and benefits of net metering;
- (8) evaluate the ownership and transfer of the environmental attributes of energy generated by net metering systems and of any associated tradeable renewable energy credits; and
- (9) examine and evaluate best practices for net metering identified from other states.
- Sec. 5. REVISED NET METERING PROGRAM; DEVELOPMENT; REPORTS; RULEMAKING
- (a) Process; revised program. This section creates a process to result in the establishment of a revised net metering program commencing on January 1,

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2017. The components of the process include a report by the Department of Public Service (DPS) to the Public Service Board (Board or PSB), one or more workshops by the Board, the proposal of rules for the new program by the Board with a contemporaneous report by the Board to the General Assembly, and the adoption of new net metering rate schedules by Vermont's retail electricity providers.

- (b) DPS report to Board. On or before October 1, 2014, the DPS shall submit a report to the Board that evaluates the current state of net metering in Vermont. The report shall include each of the items listed in Sec. 4 of this act, 30 V.S.A. § 8010(d)(1)–(9). For the purpose of this report, the plan used under 30 V.S.A. § 8010(d)(2) shall be the Comprehensive Energy Plan issued in 2011.
- or more workshops to solicit the input of potentially affected parties and the public on the design of a revised net metering program. The Board shall provide notice of the workshops on its website and directly to the Department, Vermont's retail electricity providers, Renewable Energy Vermont, business organizations such as Associated Industries of Vermont, environmental and consumer advocacy organizations such as the Vermont Natural Resources

 Council and the Vermont Public Interest Research Group, and to any other person that requests direct notice or to whom the Board may consider direct

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notice appropriate. The Board also shall provide an opportunity for submission of written comments, which the notice shall include.

- (d) Rulemaking. On completion of the workshops, the Board shall commence a rulemaking proceeding for a revised net metering program in accordance with the following:
- (1) 30 V.S.A. § 219a shall not apply to the rules to be adopted under this section.
- (2) The provisions of Secs. 3 (definitions; 30 V.S.A. § 8002) and 4 (self-generation and net metering; 30 V.S.A. § 8010) shall apply to the rules to be adopted under this section. Within the requirements of these provisions, the Board may consider and adopt approaches to net metering that are alternative to those currently employed in the State and that ensure a sustainable net metering program that achieves, in a balanced and equitable manner, the goals and policies identified in Sec. 4 in 30 V.S.A. § 8010(d)(2).
- (3) In adopting rules under this section, the Board shall consider the DPS report under subsection (b) of this section and the comments received during the workshop process under subsection (c) of this section.
- (4) On or before January 1, 2016, the Board, having filed proposed rules and completed the public hearing and comment process under the Vermont

 Administrative Procedure Act, shall submit to the House Committees on

 Commerce and on Natural Resources and Energy and the Senate Committees

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on Finance and on Natural Resources and Energy the text of the final proposed rules it intends to file with the Secretary of State and the Legislative

Committee on Administrative Rules pursuant to 3 V.S.A. § 841. With this rule text, the Board shall submit a report summarizing the public comment received, providing the Board's evaluation of the effectiveness of the existing net metering program, describing the alternative approaches to net metering that it considered, and summarizing the rule text.

- (5) On or before July 1, 2016, the Board shall finally adopt rules for a revised net metering program to take effect on January 1, 2017.
- (A) If the Board is unable to finally adopt the rules by July 1, 2016, the Board may issue an order by that date establishing a revised net metering program to take effect on January 1, 2017, if that order is followed by final adoption of rules for this program within a reasonable period. The provisions of subdivisions (d)(1) through (3) of this subsection shall apply to this order.
- (B) Rules finally adopted under this subdivision (5) shall not be subject to the requirement of 3 V.S.A. § 843(c) to finally adopt rules within eight months of initial filing.
- (e) Following the Board's final adoption of rules under this section or issuance of an order under subdivision (d)(5)(A) of this section, whichever is earlier, each retail electricity provider within the meaning of 30 V.S.A. § 8002 shall, on a schedule directed by the Board, submit revised rate schedules that

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comply with those rules, for effect on January 1, 2017. The provisions of Secs. 3 (definitions; 30 V.S.A. § 8001) and 4 (self-generation and net metering; 30 V.S.A. § 8010) shall apply to the rate schedules to be adopted under this section.

* * * Technical Corrections * * *

Sec. 6. 30 V.S.A. § 8007(a) is amended to read:

- (a) The same application form, rules, and procedures that the Board applies to net metering systems of 150 kilowatts (kW) or less under sections 219a and 248 and 8010 of this title shall apply to the review under section 248 of this title of any renewable energy plant with a plant capacity of 150 kW or less and to the interconnection of such a plant with the system of a Vermont retail electricity provider. This requirement includes any waivers of criteria under section 248 of this title made pursuant to section 219a 8010 of this title.

 Sec. 7. 30 V.S.A. § 8104(b) is amended to read:
- (b) If a Vermont village green renewable project includes district power and does not qualify or opt for treatment as a net metering system under section 219a 8010 of this title:

* * *

Sec. 8. 32 V.S.A. § 3845(b) is amended to read:

(b) For the purposes of <u>In</u> this section, alternate energy sources includes any plant, structure, or facility used for the generation of electricity or

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production of energy used on the premises for private, domestic, or agricultural purposes, no part of which may be for sale or exchange to the public. The term shall include, but not be limited to grist mills, windmills, facilities for the collection of solar energy or the conversion of organic matter to methane, net metering systems regulated by the Public Service Board under 30 V.S.A. § 219a 8010, and all component parts thereof including land upon which the facility is located, not to exceed one-half acre.

- Sec. 9. 32 V.S.A. § 9741(46) is amended to read:
 - (46) Tangible personal property to be incorporated into:
 - (A) a net metering system as defined in 30 V.S.A. § 219a 8002;
- (B) a home or business energy system on a premises not connected to the electric distribution system of a utility regulated under Title 30 and that otherwise meets the requirements of 30 V.S.A. $\frac{9}{219a(a)(3)(A)}$, (C), (D), and (E) $\frac{8}{219a(a)(3)(A)}$, (C), and (D); or
- (C) a hot water heating system that converts solar energy into thermal energy used to heat water, but limited to that property directly necessary for and used to capture, convert, or store solar energy for this purpose.
- * * * Advocacy; Regional Electric System * * *
 Sec. 9a. 30 V.S.A. § 2(f) is added to read:
- (f) In all forums affecting policy and decision making for the New England region's electric system, including matters before the Federal Energy

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England, the Department of Public Service shall advance positions that are consistent with the statutory policies and goals set forth in 10 V.S.A. §§ 578, 580, and 581 and sections 202a, 8001, and 8005 of this title. In those forums, the Department also shall advance positions that avoid or minimize adverse consequences to Vermont and its ratepayers from regional and inter-regional cost allocation for transmission projects. This subsection shall not compel the Department to initiate or participate in litigation and shall not preclude the Department from entering into agreements that represent a reasonable advance to these statutory policies and goals.

*** SPEED Program; Environmental Attributes ***

Sec. 9b. STUDY; REPORT; SPEED PROJECTS; ENVIRONMENTAL

ATTRIBUTES

(a) As used in this section:

- (1) "2017 SPEED goal" means the statewide goal described in 30 V.S.A. § 8005(d) to assure that 20 percent of total statewide electric retail during the year commencing January 1, 2017 shall be generated by SPEED resources that constitute new renewable energy as defined in 30 V.S.A. § 8002.
- (2) "Department" means the Department of Public Service established under 3 V.S.A. § 212 and 30 V.S.A. § 1.

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(3) "Environmental attributes," "renewable energy," "plant," "SPEED resources" and "tradeable renewable energy credits" shall have the same meaning as under 30 V.S.A. § 8002.

- (b) On or before December 1, 2014, the Department shall commence and complete a study and produce a report on:
- (1) the environmental and economic benefits and costs of requiring contracts with renewable energy plants commencing construction on and after the effective date of this section to attach environmental attributes, including any associated tradeable renewable energy credits, in order to count toward the 2017 SPEED goal; and
- (2) the environmental and economic benefits and costs of Vermont's adopting a renewable portfolio standard.
- (c) The report described in subsection (b) of this section shall include the Department's recommendation on whether contracts with renewable energy plants commencing construction on and after the effective date of this section should attach environmental attributes in order to count toward the 2017 SPEED goal.
- (d) The Department shall submit the report described in subsection (b) of this section to the House Committee on Commerce and Economic

 Development, the Senate Committee on Finance, and the House and Senate

 Committees on Natural Resources and Energy.

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* * * Effective Dates * * *

- Sec. 10. EFFECTIVE DATES; APPLICABILITY; IMPLEMENTATION

 (a) This section and Secs. 1 (self-generation and net metering; 30 V.S.A.

 § 219a), 5 (revised net metering program; development; reports; rulemaking),

 9a (advocacy; regional electric system), and 9b (study; report; speed projects;
 environmental attributes) shall take effect on passage.
- (b) In this subsection, "amended subdivisions" means 30 V.S.A. § 219a(e)(3)(A) (credits), (e)(4)(B)(credits), and (h)(1)(K) (mandatory solar incentive) as amended by Sec. 1 of this act. Electric distribution companies shall implement the amended subdivisions in accordance with the following schedule:
- (1) Within 15 days of passage, an electric distribution company shall file with the Public Service Board a proposed modification to its net metering rate schedule that complies with the amended subdivisions if, as of December 31, 2013, the cumulative output capacity of net metering systems in the company's service territory was not less than 4.0 percent of its peak demand during 1996 or its peak demand during 2012, whichever peak demand was greater. In accordance with 30 V.S.A. § 219a(h)(1)(K)(I), this proposed modification shall take effect on filing with the Board.
- (2) On or before November 15, 2014, each electric distribution company that is not subject to subdivision (b)(1) of this section shall file with the Public

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Service Board a proposed modification to its net metering rate schedule that complies with the amended subdivisions. Notwithstanding 30 V.S.A. § 219a(h)(1)(K)(I) and the effective date of Sec. 1, this proposed modification shall take effect on and no earlier than January 1, 2015.

- (3) In the alternative to filing a proposed rate schedule to implement the amended subdivisions, an electric company that meets the renewable energy achievement requirements of 30 V.S.A. § 219a(o)(1) may, within 90 days of passage, file with the Board a proposed rate schedule to implement an alternative net metering program in accordance with 30 V.S.A. § 219a(o)(2).
- (c) Sec. 2 (repeal of 30 V.S.A. §§ 219a, 219b) shall take effect on

 January 1, 2017. However, nothing in this section or in the repeal of 30 V.S.A.

 § 219a or 219b shall affect the validity or terms of a certificate of public good issued for a net metering system prior to that date. A solar net metering system receiving a mandatory incentive under 30 V.S.A. § 219a(h)(1)(K) shall continue to receive that incentive through the end of the 10-year period set forth in that subdivision.
- (d) Secs. 3 (definitions; 30 V.S.A. § 8002) and 4 (self-generation and net metering; 30 V.S.A. § 8010) shall take effect on January 1, 2017, except that on passage of this act, these sections shall apply to the reports to be submitted and the rules and rate schedules to be adopted under Sec. 5 and the order that may be issued under Sec. 5(d)(5)(A).

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(e) Secs. 6 (application form), 7 (Vermont village green renewable project), 8 (alternate energy sources), and 9 (tangible personal property) shall take effect on January 1, 2017.

- (f) 30 V.S.A. § 219a and rules adopted under that section shall govern applications for net metering systems filed prior to January 1, 2017.
- (g) 30 V.S.A. § 8010 and rules adopted under that section shall govern applications for net metering systems filed on and after January 1, 2017.
- (h) During statutory revision, the Office of Legislative Council shall substitute the actual dates for the phrases, in 30 V.S.A. § 219a(o)(1)(B), "effective date of this subsection" and "one year after the effective date of this subsection."
- (i) Sec. 1a (closed landfill; municipal solar; pilot project) shall take effect on passage.

Date Governor signed bill: April 1, 2014