DRAFT BASED ON DEPT. OF PUBLIC SERVICE PROPOSAL

Introduced by

Referred to Committee on

Date:

Subject: Energy; public service; renewable electric generation; self-generation; net metering

Statement of purpose of bill as introduced: This bill proposes to make two sets of changes to the statutes governing net metering systems.

First, for effect in 2014, the bill proposes amendments regarding the cumulative output capacity of all net metering systems, the capacity of individual solar net metering systems, the required additional incentive for those systems, the ownership of renewable energy credits associated with net metering systems, the compliance of small solar systems with local setbacks, the creation of a pilot project under which an electric cooperative would install net metering systems, and the establishment of an exemption for an electric company whose power supply portfolio is 90 percent renewable.

Second, for effect in 2017, the bill would repeal the existing net metering statute and replace it with a statute that provides policy direction to the Public Service Board for a revised net metering program that would be governed by Board rules. The Board would develop these rules through a process to occur before 2017. This process would include a report by the Department of Public

Service to the Board followed by workshop and rulemaking proceedings on a revised program and a report by the Board to the General Assembly in 2016.

An act relating to self-generation and net metering

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:

(A) mean the rated electrical nameplate multiplied by 0.95, if the result of the multiplication is not more than 15 kW; and

(B) have the same meaning as set forth for a solar energy plant under "plant capacity" in section 8002 of this title, for those solar net metering systems not subject to subdivision (1)(A) of this subsection.

(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.

~~(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;

(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

(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 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 and the setback requirements, if any, that apply to other kinds of development in the area of the facility under the land use bylaws of the municipality in which the facility is located. 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 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~~ State power plans.

(3) The Board shall require that the registration or application for approval of a net metering system declare whether the customer retains ownership of the environmental attributes of any electricity generated by the net metering system in excess of the customer's consumption during each billing period 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:

(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, 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.

(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 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 blended rate calculated in the same manner as under subdivision (3)(A) of this subsection.

* * *

(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. The Board may raise the ~~4.0~~ 15 percent cap. In determining whether to raise the cap, the Board shall consider the following:

(i) the costs and benefits of net metering systems already connected to the system; and

(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;

* * *

(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 in excess of the customer's consumption during each billing period, including ownership of any associated tradeable renewable energy credits. The company shall retain ownership of those attributes and credits, 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.

(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.

(III) If a company's general residential rate schedule includes inclining block rates, the residential rate shall be ~~the highest of those block rates~~ a blended rate calculated in the same manner as under subdivision (e)(3)(A) of this section.

(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:

(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.

(iv) ~~Within 30 days of this subdivision's effective date, each 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.~~

~~(vi)~~ 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)~~(v) ~~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.

(vi) Should an additional meter at the premises of the net metering customer be necessary to implement this subdivision ~~(vii)~~(K), or should that meter need replacement because it fails or is destroyed, the net 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 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).~~

~~(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) 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) of this section. Such a facility shall not be subject to and shall not count toward the capacity limits of subdivisions (a)(3)(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 facility or group of facilities for the generation of electricity to be consumed by the company or its customers and 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 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 credit amounts, bill procedures, or energy measurement methodologies that are alternative to the requirements of subsections (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. 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:

(A) the allocation of the pilot project toward the cooperative's cumulative output capacity under subdivision (h)(1)(A) of this section shall not exceed 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 act shall be allocated equally among calendar years 2014, 2015, and 2016, with any unused capacity in any one year carrying forward to the next year.

(o) An electric company that meets and maintains the renewable energy achievement requirements of subdivision (1) of this subsection may implement an alternative net metering program if approved in accordance with subdivision (2) of this subsection.

(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 equivalent to 90 percent of the company's total annual retail sales of electricity for the prior year; 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) Using the procedures set forth in section 225 of this title, an electric company that meets the requirements of subdivision (1) of this subsection may propose to the Board a rate schedule to implement a net metering program in its service territory that is consistent with the company's supply portfolio, 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 the environmental attributes of generation within the program and any associated tradeable renewable energy credits, and that may provide for credit amounts, bill procedures, or energy measurement methodologies that are alternative to the requirements of subsections (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. The Board may approve this rate schedule if it determines that it is just and reasonable.

* * * Comprehensive Net Metering Revisions for 2017 * * *

Sec. 2. 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, 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 adoption 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:

(1) analyze the current pace of net metering deployment, both statewide and within the service territory of each electric company;

(2) after considering the goals and policies of 10 V.S.A. § 578 (greenhouse gas reduction), 30 V.S.A. § 202a (State energy policy), 30 V.S.A.

chapter 89 (renewable energy), and the Comprehensive Energy Plan issued in 2011, recommend the future pace of net metering deployment statewide and within the service territory of each electric company;

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

(4) evaluate the effect of net metering on electric company infrastructure and revenue;

(5) analyze the economic and environmental benefits of net metering, and the short- and long-term impacts on rates, both statewide and for each electric company;

(6) analyze the reliability and supply diversification costs and benefits of net metering; and

(7) examine and evaluate best practices for net metering identified from other states.

(c) Workshops. Beginning in October 2014, the Board shall convene one 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, the electric companies, and Renewable Energy Vermont and to any other person that requests direct notice or to whom the Board may consider direct

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 and, on or before January 1, 2016, shall finally adopt rules for a revised net metering program to take effect on January 1, 2017.

(1) 30 V.S.A. § 219a shall not apply to the rules to be adopted under this section.

(2) The provisions of Secs. 4 (definitions; 30 V.S.A. § 8001) and 5 (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 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 subdivision (b)(2) of this section.

(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.

(e) On or before January 1, 2016, the Board shall provide a report to the House Committee on Natural Resources and Energy, Senate Committee on Natural Resources and Energy, and Senate Committee on Finance on

January 1, 2016, 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 in adopting the rules under this section, and summarizing and attaching the rules adopted by the Board under this section.

(f) Following the Board's final adoption of rules under this section, 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 comply with those rules, for effect on January 1, 2017. The provisions of Secs. 4 (definitions; 30 V.S.A. § 8001) and 5 (self-generation and net metering; 30 V.S.A. § 8010) shall apply to the rate schedules to be adopted under this section.

Sec. 3. REPEAL

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

Sec. 4. 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 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 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.

(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, 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) if the system serves more than one customer, using multiple meters. The calculation shall be made by converting all meters to a nondemand, nontime-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;

(D) is located on the customer's premises or, in the case of a plant to serve more than one customer, on the premises of one of the customers to be served; and

(E)(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 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, 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.

(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 (~~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~~ In 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.

(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.

~~(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. 5. 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 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) promotes equity 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 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) the cumulative plant capacity of net metering systems to be installed over time;

(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;

(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; and

(C) shall seek to simplify the application and review process as appropriate.

(4) Each retail electricity provider shall implement net metering in its service territory through a tariff that is consistent with this section and the rules adopted under this section and is approved by the Board.

* * * Technical Corrections * * *

[TO BE COMPLETED]

* * * Effective Dates * * *

Sec. 6. EFFECTIVE DATES; APPLICABILITY; IMPLEMENTATION

(a) This section and Secs. 1 (self-generation and net metering; 30 V.S.A. § 219a) and 2 (revised net metering program; development; reports; rulemaking) shall take effect on passage.

(b) In this subsection, "amended subdivisions" means 30 V.S.A. § 219a(e)(3)(A) (credits; blended rate), (e)(4)(B) (credits; blended rate) 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 30 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 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.

(c) In Sec. 1, 30 V.S.A. § 219a(a)(1) (definitions; capacity) shall apply to net metering systems for which applications are filed on and after July 1, 2014 and shall not apply to net metering systems for which applications were filed before that date.

(d) Sec. 3 (repeal of 30 V.S.A. § 219a) 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.

(e) Secs. 4 (definitions; 30 V.S.A. § 8002) and 5 (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. 2.

(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.